

Draft Environmental Impact Report SCH No. 2021080103

Affinity Project

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January 2022

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EXECUTIVE SUMMARY

INTRODUCTION

The California Environmental Quality Act (CEQA) (Section 21000 et. seq. of the *California Public Resources Code*) requires that lead agencies consider the potential environmental consequences of projects over which they have discretionary approval authority prior to taking approval action on such projects. An Environmental Impact Report (EIR) is a public document designed to provide the City, trustee and responsible agencies, the general public, and other interested parties with an analysis of potential environmental consequences of a project and to support informed decision making by the Lead Agency. The City of Pasadena (City) is the Lead Agency under CEQA and is responsible for preparing the EIR. This determination is made in accordance with Sections 15051 and 15367 of the State CEQA Guidelines, which define the Lead Agency as the public agency that has the principal responsibility for carrying out or approving a project.

This EIR has been prepared to identify, analyze, and mitigate, to the extent feasible, the potential environmental effects associated with implementation of The Affinity Project (Project or Project with Building A Residential/Commercial). This EIR has been prepared pursuant to the requirements of CEQA and the Guidelines for the Implementation of CEQA (State CEQA Guidelines) (Title 14, *California Code of Regulations*, Chapter 3, Sections 15000 et. seq.).

This Executive Summary has been prepared in accordance with Section 15123(a)(b) of the State CEQA Guidelines, which states that an EIR should contain a brief summary of the proposed actions and its consequences and should identify (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) areas of controversy known to the Lead Agency; and (3) issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects.

PROJECT LOCATION AND SETTING

The City of Pasadena (City) is situated along the western edge of the San Gabriel Valley and at the foothills of the San Gabriel Mountains. The Project site is in the southwestern quadrant of the City and to the southeast of the State Route (SR)-110 and Interstate-210 (I-210) intersection.

The Project site encompasses approximately 3.3 acres (144,853 square feet [sf]) located between 465 and 577 South Arroyo Parkway, City of Pasadena, Los Angeles County. The site is bound by East Bellevue Drive on the north, South Arroyo Parkway on the east, East California Boulevard on the south, and the Metro Gold (L) Line on the west.

The Project site consists of five parcels developed with a total of nine commercial buildings with seven businesses. All existing buildings on the site are one or two stories with heights ranging between 17 feet and 63 feet. All existing land uses have surface parking except for the Whole Foods Market, which has a 275-space subterranean parking structure for its sole use. Table 2-1, Summary of Existing Land Uses, summarizing the existing on-site land uses; and Exhibit 2-2, Existing Project Site, illustrating the addresses and locations of the nine existing buildings and other on-site land uses, is provided in Section 2.0, Project Description, of this EIR.

The Project area is an urban environment, and the site and surrounding area are fully built out with a broad mix of land uses. These land uses also represent a variety of ages, architectural styles, heights, and conditions. Exhibit 2-3, Aerial Photograph, depicting the site and existing land use types in the surrounding area is provided in Section 2.0, Project Description, of this EIR.

Commercial land uses are primarily located to the north, including retail, services, and restaurants. Other land uses to the north include medical offices; Pasadena Humane Society, located approximately 0.1-mile to the northwest; Central Park, located approximately 0.2-mile northwest of the site; and single- and multi-family residential land uses located, at the nearest, approximately 0.2-mile to the north on Del Mar Boulevard and approximately 0.1-mile to the north-northeast on Bellevue Drive. Commercial land uses are located opposite the Project site on Arroyo Parkway. Single- and multi-family residential land uses are situated less than 0.1-mile to the east along Marengo Avenue and Arroyo Parkway. Land uses to the south include a mix of commercial, medical office, and single- and multi-family residential land uses; the latter is located along Marengo Avenue and California Boulevard to the southeast. To the west, there is a mix of commercial and non-profit (i.e., npr/KPCC and Union Station Homeless Services) uses. Further from the site, land uses include a mix of commercial, medical, light industrial, single- and multi-family residential, and public (e.g., schools, churches, parks).

Regional access to the site is provided by SR-110 located approximately 0.6-mile due south on Arroyo Parkway. Local access is provided by adjacent surface streets and Metro's Del Mar Station located approximately 0.2-mile to the north. Exhibit 2-1, Regional Location and Local Vicinity, illustrates the Project site location and is provided in Section 2.0, Project Description, of this EIR.

PROJECT DESCRIPTION

The Applicant requests approval to rezone the Project site from CD-6 to a Planned Development (PD) zone, and approval of a PD Plan. The Project involves demolition of 6 (of the 9) existing buildings totaling 45,912 sf, located at 491, 495, 499, 503, 541, and 577 South Arroyo Parkway, and construction of 2 new buildings, as identified below:

- Building A: a 154,000-sf, 7-story (aboveground) medical office building with ground-floor commercial uses;
- Building B: a 184,376-sf, 7-story (aboveground) assisted living building with 85,800 sf of assisted living uses and 98,576 sf of independent living uses including up to 95 studio, one-, and two-bedroom senior housing units; and
- Up to 850 parking spaces in 5 subterranean levels.

Alternatively, the proposed PD Plan would provide the flexibility to exchange the uses in Building A from medical office and ground floor commercial for the following:

- 3,000 sf of commercial and a sales/leasing management office on the ground floor;
- Up to 197 residential dwelling units; and
- Up to 650 parking spaces in 4 subterranean levels (1 less parking level than the Project as proposed).

Although the Project described is anticipated to reflect the Project to be constructed, the flexibility to exchange the uses in Building A would enable the Project to respond to the economic needs and demands of the City at the time of Project implementation. The proposed site layout and the aboveground height, mass, and other parameters of the Building A design would remain the same. The PD Plan would define all aspects of site design and provide caps on the types and amounts of allowable land uses, regardless of whether Building A is developed with medical office or residential dwelling units. It is noted that based on the development cap of 87 dwelling units per acre (du/acre), a total of 289 units could be constructed. Therefore, if a total of 197 units were constructed in Building A, only 92 senior housing units (i.e., 3 fewer units than the Project as proposed) could be constructed in Building B. Conversely, if 95 senior housing (i.e., independent living) units were constructed in Building B, only 194 units could be constructed in Building A.

Throughout the CEQA documentation, these two development scenarios will be referred to as:

- Project (development of Building A with medical office/commercial), and
- Project with Building A Residential/Commercial (development of Building A with residential/commercial).

A total of 5 levels of subterranean parking spanning both proposed buildings with up to 850 parking spaces would be constructed to serve the new development as well as the existing structures at 501 and 523 South Arroyo Parkway under the Project scenario. When including the new subterranean parking, the Project would consist of approximately 753,439 sf of new construction. For the Project with Building A Residential/Commercial, a total of 4 levels of subterranean parking spanning both proposed buildings with up to 650 parking spaces would be constructed to serve the new development as well as the existing structures at 501 and 523 South Arroyo Parkway.

Approximately 79,553 sf of the existing development would be retained and integrated into the Project, including the Whole Foods Market and associated 275-space subterranean parking structure at 465 South Arroyo Parkway, and the 2 historic structures at 501 and 523 South Arroyo Parkway. The Applicant anticipates that restaurant uses would occupy the approximately 5,882 sf of space in the existing buildings to be retained at 501 and 523 South Arroyo Parkway. In retaining these structures, the Applicant is also requesting a zoning variance for historic resources related to building height. Specifically, the Applicant is requesting an increase in allowable building height of the two new buildings to offset the reduction in developable area due to preserving the two historic structures (i.e., 501 and 523 South Arroyo Parkway) on the Project site. Exhibit 2-4, Project Site Plan, provided in Section 2.0, Project Description, of this EIR, depicts a schematic overview of the Project design.

PROJECT ALTERNATIVES

Section 15126.6 of the State CEQA Guidelines requires an evaluation of the comparative effects of a reasonable range of alternatives to the proposed Project that would feasibly attain most of the proposed Project objectives and would avoid or substantially lessen any of the significant impacts of the proposed Project. A feasible alternative is one that can be accomplished successfully in a reasonable period of time, taking economic, legal, social, and technological factors into consideration. The range of alternatives is governed by the “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasonable choice.

In accordance with Section 15126.6 of the State CEQA Guidelines, Section 4.0, Alternatives, of this EIR addresses alternatives to the proposed Project. Section 4.0 provides a description of each alternative; a comparative analysis of the potential environmental effects of each alternative to those associated with the proposed Project; a discussion of each alternative’s ability to meet the Project objectives; and a discussion of the environmentally superior alternative. For complete description of all Project alternatives analyzed in this EIR, refer to Section 4.0. The following is a summary description of the alternatives evaluated in this EIR:

- **Alternative 1 – No Project/No Development.** This alternative addresses one of the two types of “No Project” alternatives identified by CEQA. Under the No Project/No Development Alternative, the existing environmental setting would remain unchanged. The City would not rezone the Project site from CD-6 (Central District Specific Plan [CDSP], Arroyo Corridor/Fair Oaks subdistrict), to a Planned Development (PD) zone, approve the PD Plan, nor would the City approve the Project or Project with Building A Residential/Commercial. This Alternative assumes the Project site would continue to remain in its existing state without demolition of any existing structures and site

improvements, and the continued use and operation of the existing land uses present at the time the NOP was distributed in August 2021.

- **Alternative 2 – Project Development with Existing Zoning.** Alternative 2 assumes the site is developed with the same land uses as the Project or Project with Building A Residential/Commercial but with application of existing zoning (i.e., no PD Plan). Alternative 2 would result in demolition of 6 (of the 9) existing buildings totaling 45,912 sf, same as the Project, and a total of 217,280 sf of aboveground development—including the 79,553 sf of existing development to be retained. As such, this alternative would result in construction of 2 new buildings with 137,727 sf of new development, a total of 387 parking spaces in 3 subterranean levels, and a maximum height of 50 feet or 65 feet with height averaging. Alternative 2 with Building A Residential/Commercial could result in up to 108 residential dwelling units and 3,000 sf of commercial, with up to 282 parking spaces in 2 subterranean levels.
- **Alternative 3 – All Residential Project with Variance for Historic Resources.** Alternative 3 assumes the demolition of 6 (of the 9) existing buildings totaling 45,912 sf, and a total of 417,929 sf of aboveground development – including the 79,553 sf of existing development to be retained, same as the Project. However, Alternative 3 assumes the new buildings would include up to 289 market-rate residential units (i.e., apartments and/or condominiums), except for ground-floor commercial in Building A, and a total of 607 parking spaces in 4 subterranean levels.
- **Alternative 4 – All Medical Office Project with Variance for Historic Resources.** Alternative 4 assumes the demolition of 6 (of the 9) existing buildings totaling 45,912 sf, and a total of 417,929 sf of aboveground development – including the 79,553 sf of existing development to be retained, same as the Project. However, Alternative 4 assumes the new buildings would include solely medical office uses except for ground-floor commercial in Building A, and a total of 1,218 parking spaces in 7 subterranean levels.

ISSUES TO BE RESOLVED

Section 15123(b)(3) of the State CEQA Guidelines requires that an EIR contain a discussion of issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With respect to the proposed Project or Project with Building A Residential/Commercial, the key issues to be resolved include decisions by the City of Pasadena, as Lead Agency, pertaining to:

- Whether this environmental document adequately describes the potential environmental impacts of the proposed Project;
- Whether the recommended mitigation measures and the design of the Project should be modified and/or adopted as proposed;
- Whether the Project benefits override those environmental impacts that cannot be feasibly avoided or mitigated to a less than significant level;
- Whether there are other mitigation measures that should be applied to the Project besides those identified in the EIR; and
- Whether there are any alternatives to the proposed Project that would substantially lessen any of its significant impacts while achieving most of the basic Project objectives.

AREAS OF CONTROVERSY

Section 15123(b)(2) of the State CEQA Guidelines indicates that an EIR summary should identify areas of controversy known to the Lead Agency, including issues raised by the public agencies

and the public. This EIR has taken into consideration the written comments received from the public and various agencies in response to the IS and Notice of Preparation (NOP) distributed on August 3, 2021 (for a 30-day public review period from August 5, 2021 through September 3, 2021), and comments received during the two public virtual scoping meetings held on August 11, 2021, and August 26, 2021 via Zoom. A copy of the NOP comments received are provided in Appendix A-2 of this EIR. A summary of issues raised in response to the NOP, and where in the EIR they are discussed, is presented in Table 1-1 in Section 1.0, Introduction, of this EIR.

The primary environmental areas of controversy known to the City of Pasadena that have been raised to date related to implementation of the proposed Project include biological (tree removal), land use (context and scale of development), transportation (traffic generation and traffic safety), and water supply.

SUMMARY OF SIGNIFICANT ENVIRONMENTAL IMPACTS

Pursuant to Sections 15126.2 and 15126.4 of the State CEQA Guidelines, a Draft EIR is required to identify any potentially significant adverse impacts and recommend mitigation measures that would eliminate or reduce these impacts to levels of less than significant.

At the onset of the CEQA process, the City determined that an EIR is required for the proposed Project and prepared an IS in accordance with State CEQA Guidelines Sections 15063. The City determined there would be no impacts or less than significant impacts to the following environmental topics and/or thresholds (refer to the IS/NOP in Appendix A-1). Therefore, in accordance with Section 15128 of the State CEQA Guidelines, these are identified as topical areas that would not receive further evaluation in this EIR:

- Aesthetics
- Agricultural and Forestry Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Mineral Resources
- Population and Housing
- Wildfire

Based on the results of the IS and comments received in response to the NOP, the City determined implementation of the proposed Project and/or Project with Building A Residential/Commercial has the potential to impact the following environmental topics, which are further addressed in this Draft EIR:

- Air Quality
- Cultural and Paleontological Resources
- Energy
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise
- Public Services and Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

If the City of Pasadena, as Lead Agency, determines that unavoidable significant adverse impacts would result from the proposed Project, a Statement of Overriding Considerations must be prepared and adopted before it can approve the proposed Project. A Statement of Overriding Considerations states that the decision-making body has weighed the physical, social, and economic benefits of the Project against its unavoidable significant environmental effects and has determined that the benefits of the Project outweigh its adverse effects; therefore, the adverse effects are considered acceptable.

Although the level of significance after mitigation (if any) may be the same for each threshold and/or environmental topic, the degree or severity of impact may be slightly different under each alternative. The potentially significant adverse environmental impacts of the Project and Project with Building A Residential/Commercial, which require mitigation, include:

- **Cultural Resources** (historic resources [501 and 523 South Arroyo Parkway] and unknown archaeological resources),
- **Noise** (potential for vibration-related cosmetic building damage to Whole Foods Market and 501 and 523 South Arroyo Parkway), and
- **Tribal Cultural Resources** (unknown tribal cultural resources).

Table ES-1, Summary of Project Impacts, Mitigation, and Level of Significance after Mitigation, beginning on the following page, presents a summary of significant environmental impacts identified in Sections 3.1 through 3.11 of this EIR; Mitigation Measures (MMs) that reduce identified significant impacts; and the level of significance of each impact after mitigation. Significant irreversible environmental changes and growth-inducing impacts are addressed in Section 5.0, Other CEQA Considerations.

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.2 – Cultural Resources		
<p>Tenant improvement plans for 501 and 523 South Arroyo Parkway do not anticipate demolishing, moving, or making major alterations to these historic resources, which would both be preserved in place. However, as tenant improvement plans remain conceptual and have not yet been finalized, there may be a potential for impact.</p>	<p>MM CUL-1. To the satisfaction of the City, the Project Applicant shall engage with a licensed architect and/or engineer that meets the Secretary of the Interior’s Professional Qualifications Standards for historic architect to develop a series of protection interventions and protocols that will preserve the two historical resources on the Project site – 501 and 523 South Arroyo Parkway – during all construction activities in, on, and near these two buildings. These measures shall take into consideration the protection of and security of both resources, particularly the preservation of the character-defining features through the installation of physical protective barriers around each resource and the creation of site protocols that will eliminate the potential for physical damage resulting from impacts with construction and transport equipment.</p> <p>To ensure the protection of these resources and their character-defining features, all protective barriers (which shall be installed prior to the initiation of any construction activity) and protocols shall be compliant with the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995) (Standards) and be subject to review and approval by the City planning staff.</p> <p>Site protocols for protecting the historical resources shall outline issues related to site access and navigation by contractors and construction personnel to reduce the potential for any inadvertent accidents between equipment and the two on-site historical resources. Additionally, a series of emergency measures shall be developed that outlined specific step-by-step processes in the event that an accident involves one of the historical resources. This will likely include the following:</p> <p style="padding-left: 40px;">Stop-work protocols after an accident involving a historical resource occurs,</p> <ol style="list-style-type: none"> (1) Notification procedures and identification key contacts, (2) Identification of qualified historic preservation professionals to investigate the historical resources following the determination that the area is safe, (3) Thorough conditions assessment of the resource by the qualified consultant to ascertain the level and extent of the damage, and 	<p>Less than significant</p>

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>(4) Preparation of a historical resource treatment plan to stabilize the historical resource and address the damage, which will be submitted to City staff for review and approval prior to completing the work and resumption of construction activities.</p> <p>Additionally, protocols shall include regular on-site monitoring during construction activities by historic preservation consultant, either a SOI Qualified historic architect or architectural historian. The historic preservation consultant shall document the existing conditions of each resource prior to the initiation of any construction activity and prior to installation of the protective barriers and implementation of the protection protocols. This documentation phase will include high resolution digital photographs of each facade, as well as details of character-defining features for each resource. During construction, the historic preservation consultant shall prepare field report memoranda to the City confirming that the Standards compliant protection barriers are installed in accordance with the Standards, and that agreed upon protocols are being followed throughout the course of the Project. These memoranda will be submitted to City staff for their records and review. A final report outlining the conditions of the historical resources prior, during, and following the Project's construction shall be issued to the City for approval following construction activities and prior to the issuance of a Certificate of Occupancy.</p>	
<p>There are no known archaeological resources on the Project site. However, based on the results on the cultural resources records searches conducted for the Project site and vicinity (Appendices C-2), unknown archaeological resources have potential to be present in native sediments beneath the Project site.</p>	<p>MM CUL-2. If cultural resources are discovered during construction of land development projects in Pasadena that may be eligible for listing in the California Register for Historic Resources, all ground disturbing activities in the immediate vicinity of the find shall be halted until the find is evaluated by a Registered Professional Archaeologist. If testing determines that significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; and provide a comprehensive final report including site record to the City and the South-Central Coastal Information Center at California State University Fullerton. No further grading shall occur in the area of the discovery until Planning Department approves the report..</p>	<p>Less than significant</p>

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.7 – Noise		
<p>The Whole Foods Market building and the structures at 501 and 523 South Arroyo Parkway may experience vibration levels during operation of a certain equipment that could cause cosmetic damage.</p>	<p>MM NOI-1. The potential for vibration-induced cosmetic (i.e., not structural) damage to the structures at 465, 501, and 523 South Arroyo Parkway shall be reduced by implementing the following three steps: (1) setbacks, (2) monitoring, and (3) restoration (if applicable).</p> <p>(1) The Project Applicant shall be responsible for ensuring the construction specifications include the following language: “Construction equipment shall observe setback distances of 30 feet from any of the three on-site buildings being retained (Whole Foods Market and 501 and 523 South Arroyo Parkway) for equipment equivalent to a large bulldozer (29,000 pounds or more) and 20 feet for jackhammers and loaded trucks. Small dozers and other equipment with vehicle weights of less (29,000 pounds) are not anticipated to result in substantial levels of vibration that could cause building damage”.</p> <p>(2) The Project Applicant shall be responsible for placing a vibration monitor in each of the three on-site buildings to remain on the site. The contractor would need to have vibration measurements taken on the site when heavy equipment or vibration intensive activities occurs near (i.e., less than 30 feet horizontal distance) to these three buildings. Vibration measurements will be recorded and compared to the vibration thresholds appropriate for the building that may be impacted. Vibration records shall be submitted to the City once a week. The appropriate vibration thresholds are as follows: 0.12 peak particle velocity (PPV) for 501 and 523 South Arroyo Parkway and 0.30 PPV for Whole Foods Market. The Applicant shall be responsible for preparing a Monitoring Plan, describing the proposed location of vibration monitors, the timing of monitoring, collecting vibration records (including date, time, activity that precipitated the monitoring, and who recorded the vibration level), to whom and when the monitoring records will be submitted, and any remedial actions needed because of vibration readings. The Monitoring Plan is subject to review and approval by City staff and will be submitted prior to initiation of any construction activity on the site.</p> <p>If vibration levels are below these thresholds, it is permissible to have construction activity with large (over 29,000 pounds) equipment, jackhammers, and/or loaded trucks within the setback distances included in item 1 above. Additionally, vibration monitoring shall guide construction activity near the perimeter of these buildings during subterranean excavation and construction activity. If vibration levels are found to exceed the applicable threshold, then the associated construction activity</p>	<p>Less than significant</p>

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>shall immediately halt, and alternative methods for achieving the construction activity shall be determined and employed to reduce the construction-generated vibration exposure to the building(s) to less than the thresholds. While the specific alternative methods to be employed cannot be foreseen, as it would be depending on situation-specific factors, the performance objective of maintaining activity that results in vibration below the applicable thresholds shall guide all decisions.</p> <p>(3) If cosmetic damage does occur to one or more of these three buildings because of vibration from Project-related construction activities despite setbacks and monitoring, the Project Applicant shall be responsible for restoring the damage. Cosmetic damage includes things like, for example, cracks in paint/plaster, fallen plaster/stucco from a facade, and cracked glass. Specifically, any restorations to Whole Foods Market shall be implemented to return the damaged area to the same condition (e.g., materials, colors, style) as present at the start of construction. Any restorations to the buildings at 501 and 523 South Arroyo Parkway shall conform to the Secretary of the Interior's Standards for the Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995) (Standards), and the determination of whether the planned restorations is consistent with the Standards shall be made by a qualified historic preservation professional meeting the Secretary of the Interior's Professional Qualifications Standards for architectural history or historic architecture (Professional) and to the satisfaction of the City. The restorations to the historic buildings, if necessary, may be either to the conditions present before construction was initiated or, if the planned updates to these buildings are underway may be conducted to meet proposal conditions.</p> <p>The City of Pasadena Planning & Community Development Department shall be responsible for ensuring these requirements are included in the construction specifications prior to any demolition activity on the site. The Project Applicant and the City's inspector assigned to the Project shall also be responsible for ensuring these measures are consistently implemented throughout the construction period.</p>	

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
Section 3.10 – Tribal Cultural Resources		
<p>Based on consultation with the Gabrieliño Tongva Tribe and Gabrieliño Band of Mission Indians – Kizh Nation pursuant with AB 52, there are no known tribal cultural resources on the Project site. However, there is always the possibility that undiscovered intact cultural resources, including tribal cultural resources, may be present below the surface in native (i.e., undisturbed) sediments.</p>	<p>MM TCR-1. Prior to the commencement of any ground disturbing activity at the Project site, the Project Applicant shall accommodate a Native American Monitor (Monitor) culturally affiliated with the site as recognized by the Native American Heritage Commission (NAHC). The Monitor contracted and retained shall be at the expense of the tribe(s) that consulted on this Project. The Tribal Monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the Project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day’s activities, including construction activities, locations, soil, and any cultural materials identified.</p> <p>The on-site monitoring shall end when all ground-disturbing activities on the Project site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground-disturbing activities at the Project Site have little to no potential for impacting Tribal Cultural Resources.</p> <p>Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 50 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by Project construction activities shall be evaluated by the Tribal Monitor approved by the Consulting Tribe and a qualified Archaeologist (if one is present).</p> <p>If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes. If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance in the immediate vicinity of the find shall be halted, and the County Coroner shall be notified per Section 5097.98 of the Public Resources Code and Section 7050.5 of the Health & Safety Code. Human remains and grave/burial goods shall be treated alike per Section 5097.98(d)(1) and (2) of the Public Resources Code. Work may continue in other parts of the Project site while evaluation and, if necessary, mitigation takes place (Section 15064.5[f] of the State CEQA Guidelines). Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with</p>	<p>Less than significant</p>

**TABLE ES-1
SUMMARY OF PROJECT IMPACTS, MITIGATION,
AND LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Summary of Project Impacts	Mitigation Measures	Level of Significance After Mitigation
	<p>subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin (non-Tribal Cultural Resource) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be donated to a local school or historical society in the area for educational purposes.</p>	

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE EIR

1.1.1 REGULATORY FRAMEWORK

The California Environmental Quality Act (CEQA) (Section 21002.1 of the California Public Resources Code [PRC]) states that “the purpose of an environmental impact report (EIR) is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided”. This EIR has been prepared in accordance with CEQA (Section 21000 et. seq. of the PRC) and the State CEQA Guidelines (Section 15000 et. seq. of Title 14, *California Code of Regulations* [CCR]).

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the State CEQA Guidelines. EIRs are intended to provide an objective, factually supported analysis of the environmental consequences associated with a project that has the potential to result in significant, adverse environmental impacts, including after implementation of mitigation measures (MMs). In accordance with Section 15121(a) of the State CEQA Guidelines, this Draft EIR is an informational document that will inform public agency, decision makers, and the general public of (1) the significant environmental effects of the proposed Affinity Project (Project or Project with Building A Residential/Commercial); (2) possible ways to minimize the significant effects; and (3) reasonable alternatives to the Project and the Project with Building A Residential/Commercial.

1.1.2 LEAD AGENCY

Section 15051 of the State CEQA Guidelines identifies the Lead Agency as the public entity with the greatest responsibility for carrying out or approving the Project as a whole. The City has the primary authority to approve and adopt and subsequently implement the Affinity Project or the Project with Building A Residential/Commercial. As such, the City of Pasadena (City) is serving as the Lead Agency under CEQA and is responsible for preparing this EIR.

While this EIR has been prepared with consultant support, City staff have reviewed all submitted drafts, technical studies, and consistency with City regulations and policies and has commissioned the preparation of this EIR to reflect its own independent judgment, consistent with Section 15084 of the State CEQA Guidelines.

1.1.3 INCORPORATION BY REFERENCE

As permitted by Section 15150 of the State CEQA Guidelines, this Draft EIR has referenced several technical studies, analyses, and reports. Information from the documents, which have been incorporated by reference into this Draft EIR, has been briefly summarized in the appropriate sections and the relationship between the incorporated part of the referenced document and the EIR has been described. In addition, documents and other sources that have been used in the preparation of this EIR are identified at the end of each section of this Draft EIR. In accordance with Section 15150(b) of the State CEQA Guidelines, the locations where the public may obtain and review these referenced documents and other sources used in the preparation of the Draft EIR are also identified.

1.2 **EIR FOCUS**

1.2.1 **SCOPING PROCESS**

An Initial Study/Notice of Preparation (IS/NOP) was distributed on August 3, 2021, to applicable federal, State, regional, and local government agencies and interested parties for a 30-day public review period (August 5, 2021 through September 3, 2021) to solicit comments and to inform agencies and the public of the Project and the upcoming preparation of an EIR. The IS/NOP included a description of the proposed Project; potential environmental effects associated with Project implementation; and an invitation to agencies and the public to review and comment on the IS/NOP. A copy of the IS/NOP is provided in Appendix A-1 of this EIR. The City held two virtual scoping meetings for the Project:

Scoping Meeting No. 1
(Planning Commission)
August 11, 2021
6:30 PM

Scoping Meeting No. 2
August 26, 2021
6:30 PM

The purpose of the scoping meetings was to receive input on the environmental issues that should be addressed in the EIR. Comments received during the scoping period were received from 5 agencies, 10 organizations, and 21 individuals. Written comments are provided in Appendix A-2 of this EIR. Verbal comments received during the two scoping meetings are summarized below.

The issues raised by the comment letters and scoping meeting comments are summarized in Table 1-1, Summary of Comments on the IS/NOP, along with the primary EIR section(s) where each issue is addressed. It should be noted that the Draft EIR addresses all topical issues carried forward from the Initial Study consistent with the current environmental checklist questions in Appendix G of the State CEQA Guidelines, and current CEQA and State CEQA Guidelines requirements. NOP comments related to Project design preferences or other issues that are not environmentally related are not addressed in CEQA documentation; however, they are part of the Project record and will be seen by the decision-making body as part of their consideration of the Project and Project with Building A Residential/Commercial.

**TABLE 1-1
SUMMARY OF COMMENTS RECEIVED DURING SCOPING PERIOD**

Commentor	Comments/Issues Raised	Where Discussed
Agencies		
California Department of Transportation	Information on transportation impacts on the State highway system; heavy and oversized vehicles on State highways	Section 3.9, Transportation, summarizes the SB 743-compliant transportation analysis conducted for the Project and Project with Building A Residential/Commercial
Los Angeles County Metropolitan Transportation Authority (Metro)	Adjacency of Metro L (Gold) Line and measures to reduce potential impacts, transit-supportive planning, Metro Adjacent Development Handbook	Comments related to development adjacent to Metro's right-of-way along the L Line, and opportunities to facilitate use of nearby transit facilities are acknowledged. Section 3.9, Transportation, summarizes the SB 743-compliant transportation analysis conducted for the Project and Project with Building A Residential/ Commercial. Metro is identified as a Responsible Agency in Section 2.0 because of adjacency of light rail line
Los Angeles County Sanitation Districts	Wastewater generation and conveyance, wastewater generation estimate (Project only), connection fees, Air Quality Management Plan (AQMP) conformance	AQMP conformance is addressed in Section 3.1, Air Quality; wastewater generation, conveyance, and treatment is addressed in Section 3.11, Utilities and Service Systems

**TABLE 1-1
SUMMARY OF COMMENTS RECEIVED DURING SCOPING PERIOD**

Commentor	Comments/Issues Raised	Where Discussed
Native American Heritage Commission	Native American tribal consultation under AB 52 and SB 18; cultural resource assessment recommendations	AB 52 consultation was completed by the City. Because the Project would not involve the adoption of a Specific Plan or amendment of the General Plan, consultation under Senate Bill 18 is not required. Section 3.10, Tribal Cultural Resources, addresses potential impacts on tribal cultural resources and human remains based on the conduct of a Phase I Cultural Resource Assessment and Native American consultation
South Coast Air Quality Management District (SCAQMD)	Guidelines for air quality analysis, permits, mitigation measures, and data sources	Section 3.1, Air Quality, summarizes the air quality analysis conducted for the Project and Project with Building A Residential/ Commercial. SCAQMD is identified as a Responsible Agency in Section 2.0 because of proposed diesel backup generators
Organizations		
Advocacy No. 1 (Done, Feldmann, Marchioni, Old Pasadena Management District /Mulheim, Chamber of Commerce and Civic Association of Pasadena/Little, Schillaci, Smith, Worrell)	Support for the Project	Comment acknowledged
Advocacy No. 2 (Ficarra)	Support for the Project	Comment acknowledged
Livable Pasadena (Letter No. 1)	Land use pattern, proposed medical corridor, water supply, setbacks/project design, noise, lighting, traffic congestion, traffic safety, Prism traffic study, existing traffic level of service (LOS), Magnolia Landmark District comment support, proposed Planned Development moratorium support, General Plan/Mobility Element inconsistency	Land use issues are addressed in Section 3.6, Land Use and Planning; noise issues are addressed in Section 3.7, Noise; and transportation issues are addressed in Section 3.9, Transportation
Livable Pasadena (Letter No. 2)	Project description instability/inadequacy and EIR inappropriateness, water supply, proposed density, heat index and related health impacts, energy usage	CEQA project description standards and heat island/heat index are addressed in Section 2.0, Environmental Setting and Project Description; water supply issues are addressed in Section 3.11, Utilities and Service Systems; land use issues are addressed in Section 3.6, Land Use and Planning; energy usage is addressed in Section 3.3, Energy
Livable Pasadena (Prism)	Mobility Element inconsistency, traffic congestion/LOS affects, traffic safety, vehicle miles traveled (VMT) impact	Land use issues are addressed in Section 3.6, Land Use and Planning; and transportation issues are addressed in Section 3.9, Transportation
Madison Heights Neighborhood Association	Tree removal, number of parking spaces, traffic, loss of mountain views, limited walkability, minimal green space, community outreach deficiency, cumulative impacts, historic neighborhood and single-family neighborhood impacts, water supply	Tree removals were addressed under Threshold 2.4(e) in Section 2.4, Biological Resources, of the Initial Study (Appendix A-1); aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study; transportation issues are addressed in Section 3.9, Transportation; proposed landscaping (i.e., green space) is detailed in Section 2.4.1 in Section 2.0, Environmental Setting and Project Description; details of the City's noticing process consistent with CEQA requirements is addressed in this section (Section 1.0); the approach to the cumulative impact analysis is presented in Section 2.5 and the cumulative impact analysis is presented in Section 3.X.6 of each topical section in the EIR; historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources; off-site impacts, where relevant, are addressed in Sections 3.1 through 3.11; and water supply issues are

**TABLE 1-1
SUMMARY OF COMMENTS RECEIVED DURING SCOPING PERIOD**

Commentor	Comments/Issues Raised	Where Discussed
		addressed in Section 3.11, Utilities and Service Systems
Magnolia Avenue Landmark District	General Plan/Mobility Element inconsistency, location near historic/single-family neighborhood, proposed near Huntington Hospital, Marengo/California intersection safety issues, overabundance of nursing/assisted living facilities in City, proposed Planned Development moratorium support, public outreach, building heights, inadequate green space, inadequate infrastructure	Land use issues are addressed in Section 3.6, Land Use and Planning; transportation issues are addressed in Section 3.9, Transportation; historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources; off-site impacts, where relevant, are addressed in Sections 3.1 through 3.11; details of the City's noticing process consistent with CEQA requirements is addressed in this section (Section 1.0); proposed landscaping (i.e., green space) is detailed in Section 2.4.1 in Section 2.0, Environmental Setting and Project Description; infrastructure issues are addressed in Section 3.11, Utilities and Service Systems
Pasadena Beautiful Foundation (Chuck Livingstone)	Historic resources nearby; traffic; water supply; design compatibility with trees and gardens	Historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources; transportation issues are addressed in Section 3.9, Transportation; water supply issues are addressed in Section 3.11, Utilities and Service Systems; aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study; land use issues are addressed in Section 3.6, Land Use and Planning
Protect Pasadena Trees	New specific plan policies on tree planting and protection on public and private property, stronger tree protection/urban forestry views, setbacks, heat islands	Land use issues are addressed in Section 3.6, Land Use and Planning; tree removals were addressed under Threshold 2.4(e) in Section 2.4, Biological Resources, of the Initial Study (Appendix A-1); heat island/heat index are addressed in Section 2.0, Environmental Setting and Project Description
West Pasadena Residents' Association	Project description instability, water supply, traffic circulation, EIR premature	CEQA project description standards are addressed in Section 2.0, Environmental Setting and Project Description; water supply issues are addressed in Section 3.11, Utilities and Service Systems; transportation issues are addressed in Section 3.9, Transportation
Individuals		
Natalie Bazarevitch	Support for the Project	Comment acknowledged
Nina Chomsky	Project description instability, historic resources analysis, historic buildings not historic enough to allow variance, Project design (height/massing), EIR should include aesthetics section or historic resources analysis and land use and planning section that addresses issues covered under aesthetics topic	CEQA project description standards are addressed in Section 2.0, Environmental Setting and Project Description; aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study (Appendix A-1); historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources
Maggie Crawford	Support for the Project	Comment acknowledged
Erika Foy	Traffic infrastructure; small-town feel; scale near historic neighborhoods; cumulative traffic impact; project height, density, setbacks; risks with high-density living—poor air quality, heat index; keep Pasadena special	Transportation issues, including cumulative impacts, are addressed in Section 3.9, Transportation; historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources; land use issues are addressed in Section 3.6, Land Use and Planning; air quality issues are addressed in Section 3.1, Air Quality; heat island/heat index are addressed in Section 2.0, Environmental Setting and Project Description
Jim Gamb	Support for the Project	Comment acknowledged
Akila Gibbs	Support for the Project	Comment acknowledged

**TABLE 1-1
SUMMARY OF COMMENTS RECEIVED DURING SCOPING PERIOD**

Commentor	Comments/Issues Raised	Where Discussed
Kristin Techentin Harrison	Traffic congestion/intersection geometry; proposed ingress/egress; traffic noise; Project design; heat index; parkway sidewalk and tree planting; pedestrian safety	Transportation issues, including cumulative impacts, are addressed in Section 3.9, Transportation; noise issues are addressed in Section 3.7, Noise
Tricia Keane	Support for the Project	Comment acknowledged
Dean Kitchens	Support for the Project	Comment acknowledged
Stan Kong	Support for the Project	Comment acknowledged
Erik Landswick	Support for the Project	Comment acknowledged
Nikki Maciejowski	Support for the Project	Comment acknowledged
Penny Plotkin	Support for the Project	Comment acknowledged
Julie Rosenberg	Support for the Project	Comment acknowledged
Michelle Round	Support for the Project	Comment acknowledged
Tammy Silver	Setbacks; in-ground trees; heat index; transportation/traffic	Aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study; land use issues are addressed in Section 3.6, Land Use and Planning; heat island/heat index are addressed in Section 2.0, Environmental Setting and Project Description; transportation issues are addressed in Section 3.9, Transportation
Susan Stevens	Traffic; traffic safety; noise; building massing, setbacks, green space; historic context; water supply	Transportation issues, including traffic safety, are addressed in Section 3.9, Transportation; historic resources issues are addressed in Section 3.2, Cultural and Paleontological Resources; aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study; land use issues are addressed in Section 3.6, Land Use and Planning; noise issues are addressed in Section 3.7, Noise; water supply issues are addressed in Section 3.11, Utilities and Service Systems
Victoria Stratman	Support for the Project	Comment acknowledged
Steven Trytten	Support for the Project	Comment acknowledged
Carole Walker	Support for the Project	Comment acknowledged
Xiaoyan Zhou	Traffic; noise; air quality; water supply; electric consumption	Transportation issues are addressed in Section 3.9, Transportation; noise issues are addressed in Section 3.7, Noise; air quality issues are addressed in Section 3.1, Air Quality; water supply and electric consumption issues are addressed in Section 3.11, Utilities and Service Systems
Scoping Meeting No. 1		
Commissioner Lambert Giessinger	Variance for historic resources	Staff explained the reason for the historic resources variance; description of PD Plan process, including variance for historic resources, is discussed in Section 2.0, Environmental Setting and Project Description, and Section 3.6, Land Use and Planning
Commissioner Andrea Rawlings	Historic resources and variance for historic resources; aesthetics	Staff explained the process for the historic resources variance for the Project and discussed that the findings of the aesthetics analysis in the Initial Study was in compliance with Senate Bill (SB) 743; nonetheless, aesthetics considerations solely as they relate to historic resources will be addressed (in Section 3.2, Cultural and Paleontological Resources) through preparation of a Historic Resources Assessment

**TABLE 1-1
SUMMARY OF COMMENTS RECEIVED DURING SCOPING PERIOD**

Commentor	Comments/Issues Raised	Where Discussed
Commissioner D. Jason Lyon	Hydrology; water runoff and groundwater	Staff explained the hydrologic analysis presented in the Initial Study; the impact finding is based on implementation of standard State and City regulations during both construction and operation that would fully manage runoff for this Project
Commissioner Mic Hansen	Water supply; construction phase impacts; transportation; utilities; EIR format; cumulative impacts approach and specific plans	Water supply is evaluated as part of Section 3.11, Utilities and Service Systems, consistent with Appendix G of the State CEQA Guidelines; construction-phase impacts are evaluated for every checklist question presented in Sections 3.1 through 3.11; Transportation is addressed in Section 3.9, Transportation; the narrative format of the EIR is consistent with the state of the practice and the requirements of CEQA and the State CEQA Guidelines; the Executive Summary and Section 4.0, Alternatives, provide an overall summary of the Draft EIR's findings; Section 2.5 of Section 2.0, Environmental Setting and Project Description, describes the approach to the cumulative impact analysis, which is provided for each topic addressed in Sections 3.1 through 3.11; the cumulative impacts are based on buildout of the adopted General Plan and related adopted Specific Plans.
Madison Heights Neighborhood Association (Rob Manske)	Project design (e.g., density, setbacks, aesthetics, building scale relative to residential, change in site use); water; traffic congestion and safety; noise; infrastructure; General Plan consistency	Aesthetic issues were addressed in Section 2.1, Aesthetics, of the Initial Study; and was evaluated consistent with SB 743; transportation and traffic safety are addressed in Section 3.9, Transportation; water supply and infrastructure requirements are addressed in Section 3.11, Utilities and Service Systems; noise issues are addressed in Section 3.7, Noise; land use issues, including consistency with the General Plan and the Central District Specific Plan, are addressed in Section 3.6, Land Use and Planning
Livable Pasadena (Megan Foker)	Water supply and use; cumulative impacts	Water supply, including cumulative impacts, is addressed in Section 3.11, Utilities and Service Systems
Magnolia Landmark District (Erika Foy)	Traffic; intersection safety; cumulative impacts	Transportation and traffic safety, including cumulative impacts, are addressed in Section 3.9, Transportation
Pasadena Heritage (Andrew Salimian)	Cultural resources; traffic; water supply and retention	Historic resources are addressed in Section 3.2, Cultural and Paleontological Resources; water supply is address in Section 3.11, Utilities and Service Systems;
Scoping Meeting No. 2		
Coalition for Responsible Equitable Economic Development (CREED) LA (representing coalition of labor unions)	Air quality; noise; GHG, on-site soil contamination	Air quality issues are addressed in Section 3.1, Air Quality; noise issues are addressed in Section 3.7, Noise; greenhouse gas issues are addressed in Section 3.4, GHG Emissions; on-site soil contamination issues are addressed in Section 3.5, Hazards and Hazardous Materials
LiUNA Southern California District Council of Laborers (Bill Quisenberry)	Stated no environmental-related comments to make; looking for opportunity to put membership to work on the project.	Comment acknowledged
Ross Selvidge	Support for the Project	Comment acknowledged

Based on the results of the IS and comments received on the NOP, the City determined that implementation of the proposed Project and/or Project with Building A Residential/Commercial has the potential to impact the following environmental topics, which are further addressed in this Draft EIR:

- Air Quality,
- Cultural and Paleontological Resources,
- Energy,
- Greenhouse Gas Emissions,
- Hazards and Hazardous Materials,
- Land Use and Planning,
- Noise,
- Public Services and Recreation,
- Transportation,
- Tribal Cultural Resources, and
- Utilities and Service Systems.

The City determined there would be no impacts or less than significant impacts to the following environmental topics and/or thresholds (refer to the IS/NOP in Appendix A-1). Therefore, in accordance with Section 15128 of the State CEQA Guidelines, these are identified as topical areas that would not receive further evaluation in this EIR:

- Aesthetics,
- Agricultural and Forestry Resources,
- Biological Resources,
- Geology and Soils,
- Hydrology and Water Quality,
- Mineral Resources,
- Population and Housing, and
- Wildfire.

1.3 PROJECT APPLICANT AND CONTACT PERSON

The Project Applicant is:

The Arroyo Parkway, LLC
716 Mission Street
South Pasadena, CA 91030

All inquiries regarding the Project and the EIR should be directed to:

Mr. Jason Van Patten
Senior Planner
City of Pasadena Planning and Community Development Department
175 North Garfield Avenue
Pasadena, CA 91101
jvanpatten@cityofpasadena.net
Phone: (626) 744-6760

1.4 PUBLIC REVIEW OF THE DRAFT EIR

The Draft EIR for the Project is being distributed to responsible and trustee agencies, other affected agencies, surrounding cities, interested parties, and all parties who requested a copy of the EIR in accordance with CEQA. During the 45-day public review period, this Draft EIR, including the technical appendices, is available for review online at

<https://www.cityofpasadena.net/planning/planned-development-39-affinity-project/> and hard copies are available at the following four locations during regular business hours:

City of Pasadena Permit Center (Window 3)
175 North Garfield Avenue
Pasadena, California 91101

Allendale Library
1130 S. Marengo Avenue
Pasadena, CA 91106

Office of the City Clerk
100 N. Garfield Avenue, Room S228
Pasadena, CA 91101

Comments on the Draft EIR from public agencies and interested individuals will be accepted during the 45-day public review period from Tuesday, January 18, 2022 to Thursday, March 3, 2022. Written comments on the Draft EIR should be sent to the Lead Agency contact identified above, via mail or email. Upon completion of the 45-day public review period, written responses will be prepared for all environmental issues raised in the comment letters, and the comments and responses will be included into the Final EIR. All responses to comments submitted on this Draft EIR by public agencies will also be provided to those agencies at least ten days prior to certification of the EIR, consistent with Section 15088(b) of the State CEQA Guidelines.

1.5 DECISION-MAKING PROCESS

An EIR is one of the various decision-making tools used by a Lead Agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. For an EIR, in accordance with Section 21081 of CEQA and Section 15091 of the State CEQA Guidelines, public agencies are required to make written findings for each significant environmental impact identified in the EIR. If the Lead Agency and responsible agencies decide that the benefits of proposed Project outweigh any identified unmitigated significant environmental effects, the Lead Agency is required to adopt a Statement of Overriding Considerations supporting their actions.

Prior to approving a proposed Project, the Lead Agency must consider the information contained in the EIR; determine whether the EIR was properly prepared in accordance with CEQA and the State CEQA Guidelines; determine that the EIR reflects the independent judgment of the Lead Agency; adopt findings concerning the Project's significant environmental impacts and alternatives; and adopt a Statement of Overriding Considerations if the Project would result in significant impacts that cannot be reduced to a less than significant level.

The City Council is the decision-making body for the Project. Public hearings before both the City of Pasadena Planning Commission and then the City Council will be held. Prior to the Planning Commission and City Council hearings, the Project will go to the Design Commission. The role for Planned Developments is limited to recommendations to the Commission and Council on aesthetic and urban design issues related to elements such as architecture, landscaping, and site plan as well as historic preservation. Comments on the aesthetic/cultural resources of a draft environmental study are appropriate. Public hearings before the Commission and Council are to consider the Project and the adequacy of the Final EIR (which includes the Draft EIR, Responses to Comments on the Draft EIR, and revisions and clarifications to the Draft EIR), at which time public testimony will be received. The City Council will consider whether to certify the Final EIR and adopt a Mitigation Monitoring and Reporting Program, EIR Findings relative to the Project's environmental effects, and a Statement of Overriding Considerations, if applicable. The City Council, as the decision-making body of the Lead Agency, will then consider whether to approve, approve in modified form, or disapprove the proposed Project.

SECTION 2.0 ENVIRONMENTAL SETTING AND PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The Affinity Project (Project or Project with Building A Residential/Commercial) site encompasses approximately 3.3 acres (144,853 square feet [sf]) located between 465 and 577 South Arroyo Parkway, City of Pasadena, Los Angeles County. The site is bound by East Bellevue Drive on the north, South Arroyo Parkway on the east, East California Boulevard on the south, and the Metro Gold (L) Line on the west. Regional access to the site is provided by State Route (SR) 110 located approximately 0.6-mile due south on Arroyo Parkway. Local access is provided by adjacent surface streets and Metro's Del Mar and Fillmore Stations located approximately 0.2-miles to the north and south, respectively. Exhibit 2-1, Regional Location and Local Vicinity, illustrates the Project site location.

2.2 PROJECT SETTING AND CHARACTERISTICS

2.2.1 ON-SITE AND SURROUNDING LAND USES

The City of Pasadena (City) is situated along the western edge of the San Gabriel Valley and at the foothills of the San Gabriel Mountains. The Project site is in the southwestern quadrant of the City and to the southeast of the SR-110 and Interstate-210 (I-210) intersection.

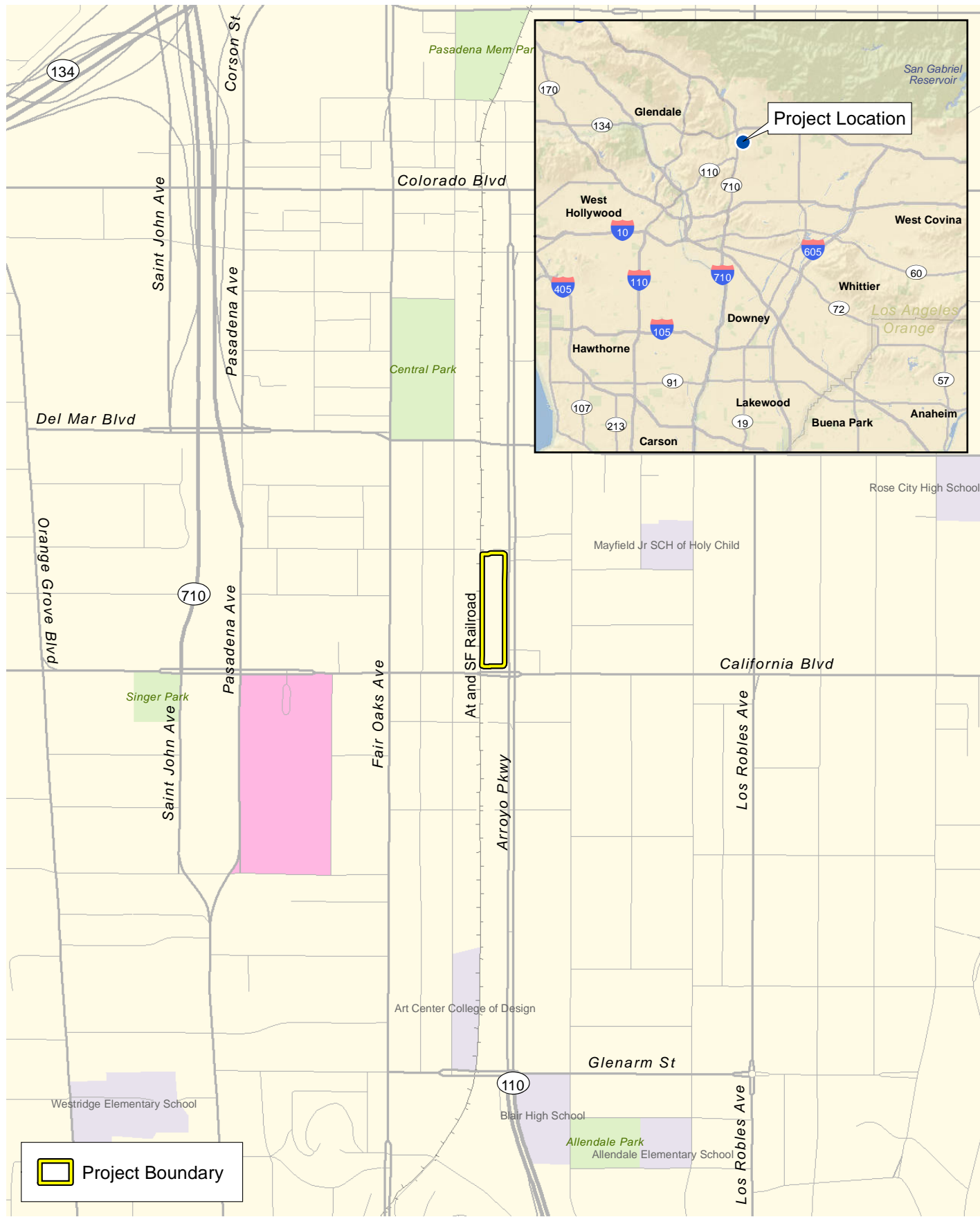
The Project site consists of five parcels developed with a total of nine commercial buildings with seven businesses. All existing buildings on the site are one or two stories with heights ranging between 17 feet and 63 feet. All existing land uses have surface parking except for the Whole Foods Market, which has a 275-space, subterranean parking structure for its sole use. Table 2-1, Summary of Existing Land Uses, summarizes the existing on-site land uses; and Exhibit 2-2, Existing Project Site, illustrates the addresses and locations of the nine existing buildings and other on-site land uses.

**TABLE 2-1
SUMMARY OF EXISTING LAND USES**


Address	Existing Use	Building Size	Disposition
465 S. Arroyo Parkway	Whole Foods Market	73,671 sf	To Be Retained
491/495 S. Arroyo Parkway	K9 Loft	12,676 sf	To Be Demolished
499/503 S. Arroyo Parkway	Corporate Furniture Resource	21,437 sf	To Be Demolished
501 S. Arroyo Parkway	Gold Line Pilates	2,880 sf	Historic Resource; To Be Retained
523 S. Arroyo Parkway	Town & Country Event Rentals	3,002 sf	Historic Resource; To Be Retained
541 S. Arroyo Parkway	Little Lily's Kitchen	7,493 sf	To Be Demolished
577 S. Arroyo Parkway	Guisado's Restaurant	4,306 sf	To Be Demolished
Total Existing Building Area		125,465 sf	
S.: South; sf: square feet			

The Project area is an urban environment, and the site and surrounding area are fully built out with a broad mix of land uses. These land uses also represent a variety of ages, architectural styles, heights, and conditions. Exhibit 2-3, Aerial Photograph, shows the site and existing land use types in the surrounding area.

Commercial land uses are primarily located to the north, including retail, services, and restaurants. Other land uses to the north include medical offices; Pasadena Humane Society,



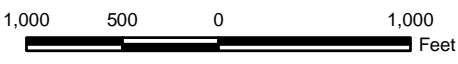
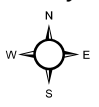
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 Project Boundary

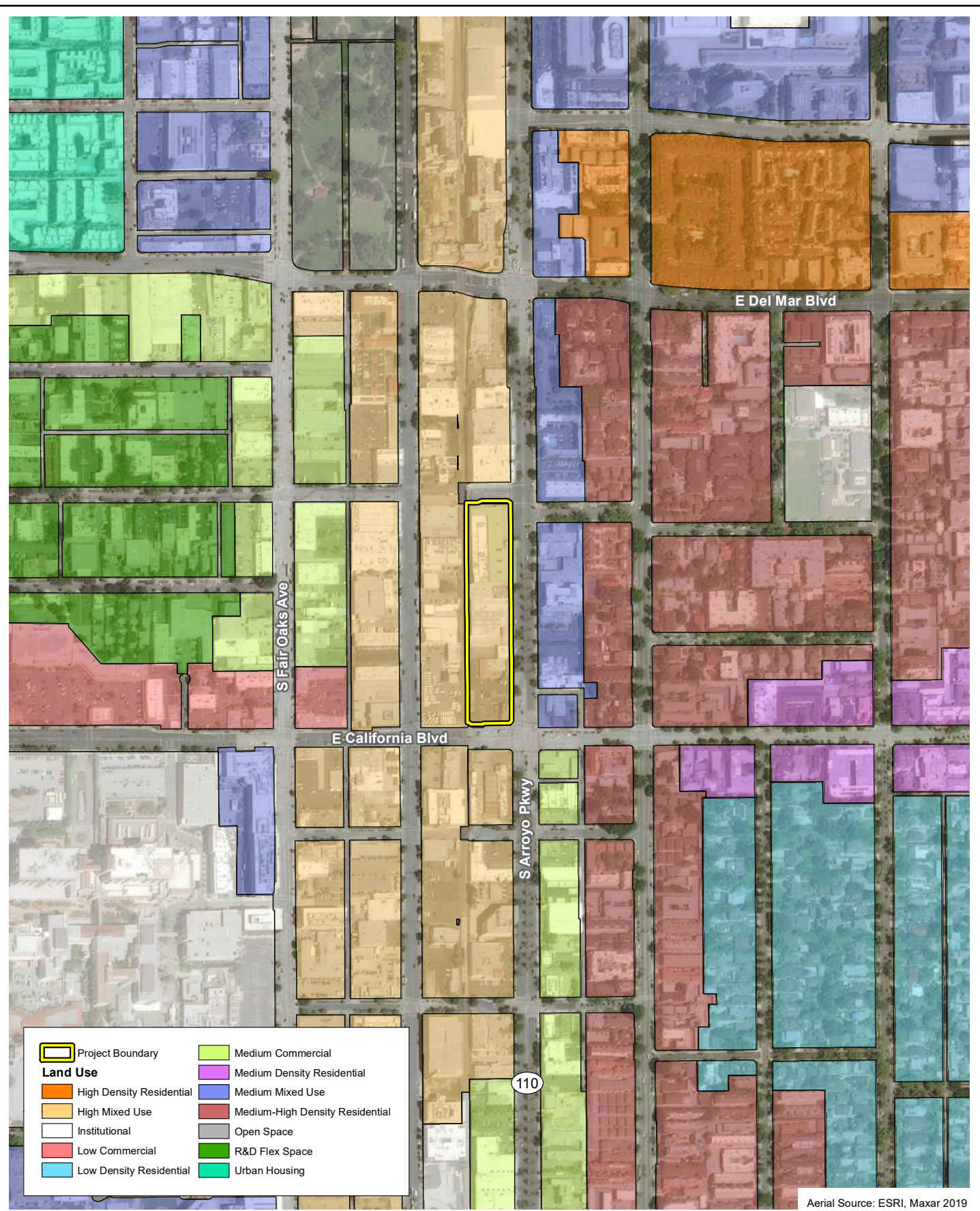
Regional Location and Local Vicinity














Exhibit 2-1

Affinity Project



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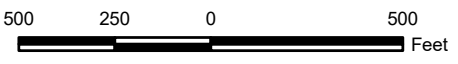
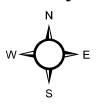
	Project Boundary		Medium Commercial
	High Density Residential		Medium Density Residential
	High Mixed Use		Medium Mixed Use
	Institutional		Medium-High Density Residential
	Low Commercial		Open Space
	Low Density Residential		R&D Flex Space
			Urban Housing

Aerial Source: ESRI, Maxar 2019

Aerial Photograph

Exhibit 2-3

Affinity Project



located approximately 0.1-mile to the northwest; Central Park, located approximately 0.2-mile northwest of the site; and single- and multi-family residential land uses located, at the nearest, approximately 0.2-mile to the north on Del Mar Boulevard and approximately 0.1-mile to the north-northeast on Bellevue Drive. Commercial land uses are located opposite the Project site on Arroyo Parkway. Single- and multi-family residential land uses are situated less than 0.1-mile to the east along Marengo Avenue and Arroyo Parkway. Land uses to the south include a mix of commercial, medical office, and single- and multi-family residential land uses; the latter is located along Marengo Avenue and California Boulevard to the southeast. To the west, there is a mix of commercial and non-profit (i.e., npr/KPCC and Union Station Homeless Services) uses. Further from the site, land uses include a mix of commercial, medical, light industrial, single- and multi-family residential, and public (e.g., schools, churches, parks).

2.2.2 PHYSICAL CHARACTERISTICS

The Project site is relatively flat with a gentle slope of approximately two percent to the south and southeast. Elevations on the site range from approximately 800 feet above mean sea level (msl) along the northern site boundary to approximately 782 feet above msl in the southeast corner.

The site is entirely developed, with the portion of the site south of the Whole Foods Market having a 97 percent impervious surface area. The existing buildings primarily drain runoff via roof drains that either connect to an underground curb drain or release just above the pavement or sidewalk. The storm water runoff then outfalls through sheet flow along driveways and street-adjacent curb drains onto the Arroyo Parkway sidewalk or directly connects to the municipal storm drain system (Fusco Engineering 2021).

There is limited ornamental vegetation present on the Project site. As shown in Table 2-2, Tree Inventory Summary, on the following page, a total of 40 trees were inventoried on the Project site and the adjacent public right-of-way (ROW). Of these, 17 trees located in the ROW are protected under the City Trees and Tree Protection Ordinance. The remaining 23 trees are located on private property within the Project site and are not protected. These include 19 queen palms, 2 Canary Island pines, 1 pecan, and 1 African fern pine (Carlberg Associates 2021).

The site currently has seven points of access, including two on California Boulevard, one on Bellevue Drive, and five on Arroyo Parkway when including the Whole Foods Market exit. All of these access points, except the access from Bellevue Drive and the Whole Foods Market exit, are driveways leading to surface parking; the access point on Bellevue Drive leads into the subterranean parking structure serving Whole Foods Market.

Metro's Gold (L) Line runs adjacent to the western site boundary. The nearest light rail platforms are Del Mar Station and Fillmore Station, located approximately ¼-mile due north and due south of the Project site, respectively. Additional public transit service present near the site includes the California Boulevard/Arroyo Parkway Metro bus stop located in the ROW on the southern site boundary, and the Bellevue Drive/Arroyo Parkway Metro bus stop located in the ROW at the northeast corner of the site.

**TABLE 2-2
TREE INVENTORY SUMMARY**

Tree ID	Tree Species		Protected Tree?	Disposition
	Common Name	Scientific Name		
Trees on Private Property				
1	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
2	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
3	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
4	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
5	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
6	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
7	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
8	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
9	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
10	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
11	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
12	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
13	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
14	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
15	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
16	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
17	African fern pine	<i>Afrocarpus falcatus</i>	No	Remove
18	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
19	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
20	queen palm	<i>Syagrus romanzoffiana</i>	No	Remove
21	Canary island pine	<i>Pinus canariensis</i>	No	Remove
22	Canary island pine	<i>Pinus canariensis</i>	No	Remove
23	pecan	<i>Carya illinoensis</i>	No	Remove
Trees in Public Right-of-Way				
ST24	camphor	<i>Cinnamomum camphora</i>	Yes	Preserve and Protect
ST25	weeping fig	<i>Ficus benjamina</i>	Yes	Preserve and Protect
ST26	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
ST27	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST28	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST29	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
ST30	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
ST31	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
ST32	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Remove
ST33	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
ST34	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST35	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST36	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST37	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST38	date palm	<i>Phoenix dactylifera</i>	Yes	Remove
ST39	African fern pine	<i>Afrocarpus falcatus</i>	Yes	Preserve and Protect
ST40	date palm	<i>Phoenix dactylifera</i>	Yes	Preserve and Protect
Source: Carlberg Associates. 2021 (February 3). City of Pasadena Tree Inventory, 555 South Arroyo Parkway, Pasadena, California 91105. Sierra Madre, CA: Carlberg Associates.				

2.2.3 RELEVANT PLANNING CONSIDERATIONS

City of Pasadena

The City's General Plan land use designation for the Project site is High Mixed-Use, which is intended to support multi-story mixed-use buildings with a variety of compatible commercial and residential uses. Development within this designation is characterized by shared open spaces, extensive landscaping, minimal building separations, and shared driveways with parking located underground or to the rear of the street. The High Mixed-Use General Plan land use category allows maximum densities of 3.0 floor area ratio (FAR) and 87 dwelling units per acre (du/acre). Based on the lot size, the site would allow up to 434,559 sf of floor area and up to 289 dwelling units.

The Land Use Element of the City's General Plan establishes an overall pattern of development that directs growth "into specific areas in order to protect residential neighborhoods and create mixed-use urban environments." These areas are based on a concept of higher density, mixed-use environments that support transit- and pedestrian-oriented mobility strategies. The Central District is one of eight areas throughout the City requiring preparation of a specific plan to implement this goal. The site is zoned CD-6 (Central District, Arroyo Corridor/Fair Oaks subdistrict). The City considers the Central District to be Pasadena's urban core, and this Specific Plan (Central District Specific Plan [CDSP]) includes a "diverse mix of land uses designed to create the primary business, financial, retailing, and government center of the City" (Pasadena 2004).

The CDSP includes both Public Realm and Private Realm Design Guidelines, which apply to all development in this district, including the Project. The CDSP also provides District-wide land use, mobility, and urban design concepts. The CDSP identifies sub-districts, and within the sub-districts, precincts that include more specific goals, policies, and standards targeted toward the vision for each neighborhood. The site is in the Arroyo Corridor Transition precinct within the Arroyo Corridor/Fair Oaks sub-district, which is an important gateway to downtown that also supports a broad, but rather undefined, mixture of uses at the periphery of the urban core. The objective of the Arroyo Corridor/Fair Oaks sub-district is to establish Arroyo Parkway as a visually appealing entrance corridor. Additionally, the intent of sub-district is to provide an attractive opportunity for employment-generating uses adaptable to changing economic conditions—such as arts, technology, and knowledge-based enterprise—within a revitalized low-scale, mixed-use setting at the periphery of Downtown Pasadena. The emphasis of the Arroyo Corridor Transition precinct is the transitional character of the area towards more pedestrian and transit-oriented development with a mix of land uses including residential, commercial, and employment (Pasadena 2004). Within this Corridor, building height is limited to 50 feet, or 65 feet using height averaging.

As discussed further below and in Section 3.6, Land Use and Planning, of this Draft EIR, the Applicant seeks approval to rezone the site as a Planned Development (PD) district and approval of a PD Plan. The City's PD zone is a special purpose zoning district defined pursuant to Section 17.26.020(C) of the Pasadena Municipal Code. The PD zoning district is "intended for sites where an applicant proposes and the City desires to achieve a particular mix of uses, appearance, land use compatibility, or special sensitivity to neighborhood character." The Applicant is also requesting a zoning variance for historic resources related to building height. Specifically, the Applicant is requesting an increase in allowable building height to offset the reduction in developable area due to preserving the two historic structures (i.e., 501 and 523 South Arroyo Parkway) on the Project site.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties, an area that encompasses more than 38,000 square miles. As the designated MPO, the federal government mandates that SCAG research and draw up plans for transportation, growth management, hazardous waste management, and air quality.

SCAG is responsible for maintaining a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan (RTP) and a Federal Transportation Improvement Program (FTIP) and developing a Sustainable Communities Strategy (SCS) to reduce greenhouse gas emissions, as required by applicable State law (Senate Bill [SB] 375) as an element of the RTP. On September 3, 2020, the SCAG Regional Council adopted the 2020–2045 RTP/SCS. The 2020 RTP/SCS combines the need for mobility with a “sustainable future” through a reduction in the amount of emissions produced from transportation sources.

High-Quality Transit Areas (HQTAs) are areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. Transit Priority Areas (TPAs) are areas within one-half mile of a major transit stop that is existing or planned (SCAG 2020). The Project site is within both a HQTA and TPA.

2.3 PROJECT OBJECTIVES

Section 15124(b) of the State CEQA Guidelines requires an EIR to include a statement of the proposed project’s objectives. This disclosure will assist in developing the range of Project alternatives to be investigated in the EIR and will provide a rationale for the adoption of a Statement of Overriding Considerations if one is needed. The Affinity Project seeks to achieve the following key objectives:

1. Reinforce and strengthen Arroyo Parkway as a major commercial corridor and the Central District’s economic vitality through the development of multi-story buildings with a variety of complementary commercial and/or residential uses in underutilized areas with higher development capacity.
2. Provide jobs, services, revenues, and opportunities that will support Pasadena as an economically vital city and allow for continued fiscal health.
3. Develop assisted living facilities that have access to local commercial services, health care facilities, community facilities, and public transit.
4. Satisfy local and regional demand for varying levels of care (independent living, residential care, continuing care) to individuals, depending on need, that are transit-accessible and pedestrian-friendly.
5. Improve Pasadena’s infrastructure and urban form through modernized buildings that are energy- and water-efficient.
6. Preserve and integrate Pasadena’s historic resources as part of a complementary development that reduces the risk of resource demolition, deterioration by neglect, and/or impacts from natural circumstances.
7. Invest sustainably by providing for the needs of existing and future residents and businesses while in proximity to transportation opportunities.

2.4 **PROJECT DESCRIPTION**

The Applicant requests approval to rezone the Project site from CD-6 to a Planned Development (PD) zone, and approval of a PD Plan. The Project involves demolition of 6 (of the 9) existing buildings totaling 45,912 sf, located at 491, 495, 499, 503, 541, and 577 South Arroyo Parkway, and construction of 2 new buildings, as identified below:

- Building A: a 154,000-sf, 7-story (aboveground) medical office building with ground-floor commercial uses;
- Building B: a 184,376-sf, 7-story (aboveground) assisted living building with 85,800 sf of assisted living uses and 98,576 sf of independent living uses including up to 95 studio, one-, and two-bedroom senior housing units; and
- Up to 850 parking spaces in 5 subterranean levels.

Alternatively, the proposed PD Plan would provide the flexibility to exchange the uses in Building A from medical office and ground floor commercial for the following:

- 3,000 sf of commercial and a sales/leasing management office on the ground floor;
- Up to 197 residential dwelling units; and
- Up to 650 parking spaces in 4 subterranean levels (1 less parking level than the Project as proposed).

Although the Project described is anticipated to reflect the Project to be constructed, the flexibility to exchange the uses in Building A would enable the Project to respond to the economic needs and demands of the City at the time of Project implementation. The proposed site layout and the aboveground height, mass, and other parameters of the Building A design would remain the same. The PD Plan would define all aspects of site design and provide caps on the types and amounts of allowable land uses, regardless of whether Building A is developed with medical office or residential dwelling units. It is noted that based on the development cap of 87 dwelling units per acre (du/acre), a total of 289 units could be constructed. Therefore, if a total of 197 units were constructed in Building A, only 92 senior housing units (i.e., 3 fewer units than the Project as proposed) could be constructed in Building B. Conversely, if 95 senior housing (i.e., independent living) units were constructed in Building B, only 194 units could be constructed in Building A.

Throughout the CEQA documentation, these two development scenarios will be referred to as:

- Project (development of Building A with medical office/commercial), and
- Project with Building A Residential/Commercial (development of Building A with residential/commercial).

A total of five levels of subterranean parking spanning both proposed buildings with up to 850 parking spaces would be constructed to serve the new development as well as the existing structures at 501 and 523 South Arroyo Parkway under the Project scenario. When including the new subterranean parking, the Project would consist of approximately 753,439 sf of new construction. For the Project with Building A Residential/Commercial, a total of 4 levels of subterranean parking spanning both proposed buildings with up to 650 parking spaces would be constructed to serve the new development as well as the existing structures at 501 and 523 South Arroyo Parkway.

Approximately 79,553 sf of the existing development would be retained and integrated into the Project, including the Whole Foods Market and associated 275-space subterranean parking

structure at 465 South Arroyo Parkway, and the 2 historic structures at 501 and 523 South Arroyo Parkway. The Applicant anticipates that restaurant uses would occupy the approximately 5,882 sf of space in the existing buildings to be retained at 501 and 523 South Arroyo Parkway. In retaining these structures, the Applicant is also requesting a zoning variance for historic resources related to building height. Specifically, the Applicant is requesting an increase in allowable building height of the two new buildings to offset the reduction in developable area due to preserving the two historic structures (i.e., 501 and 523 South Arroyo Parkway) on the Project site. Exhibit 2-4, Project Site Plan, provides a schematic overview of the Project design.

Section 15124 of the State CEQA Guidelines defines what information shall be contained in a project description for purposes of analysis in an EIR. The concept of a stable and finite project description is shaped by selected published CEQA court decisions. The project description provided in this Draft EIR meets the requirements of Section 15124 and is also stable and finite. A stable and finite project description, as interpreted in the relevant legal cases, is not synonymous with allowing only a single development scenario. The siting, mass, and outward appearance of the Project, regardless of scenario, is clearly defined both in this EIR and in the Initial Study. The upper limits of development of both buildings for both scenarios is clearly defined, and the Initial Study and this EIR address both scenarios in distinct, separate analyses. Therefore, the project description provided in this Draft EIR is legally adequate and allows for a full and robust analysis of all potential impacts of implementing either the Project or Project with Building A Residential/Commercial, if approved.

2.4.1 PROPOSED LAND USES

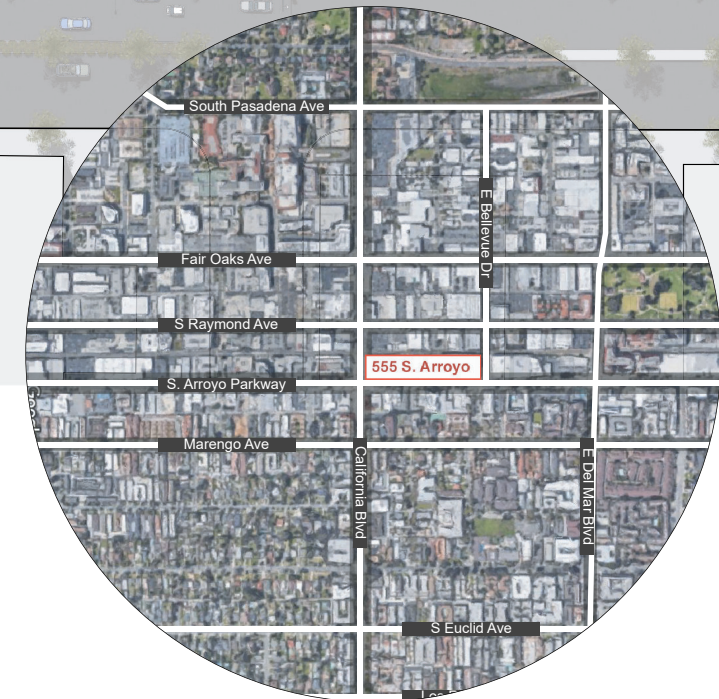
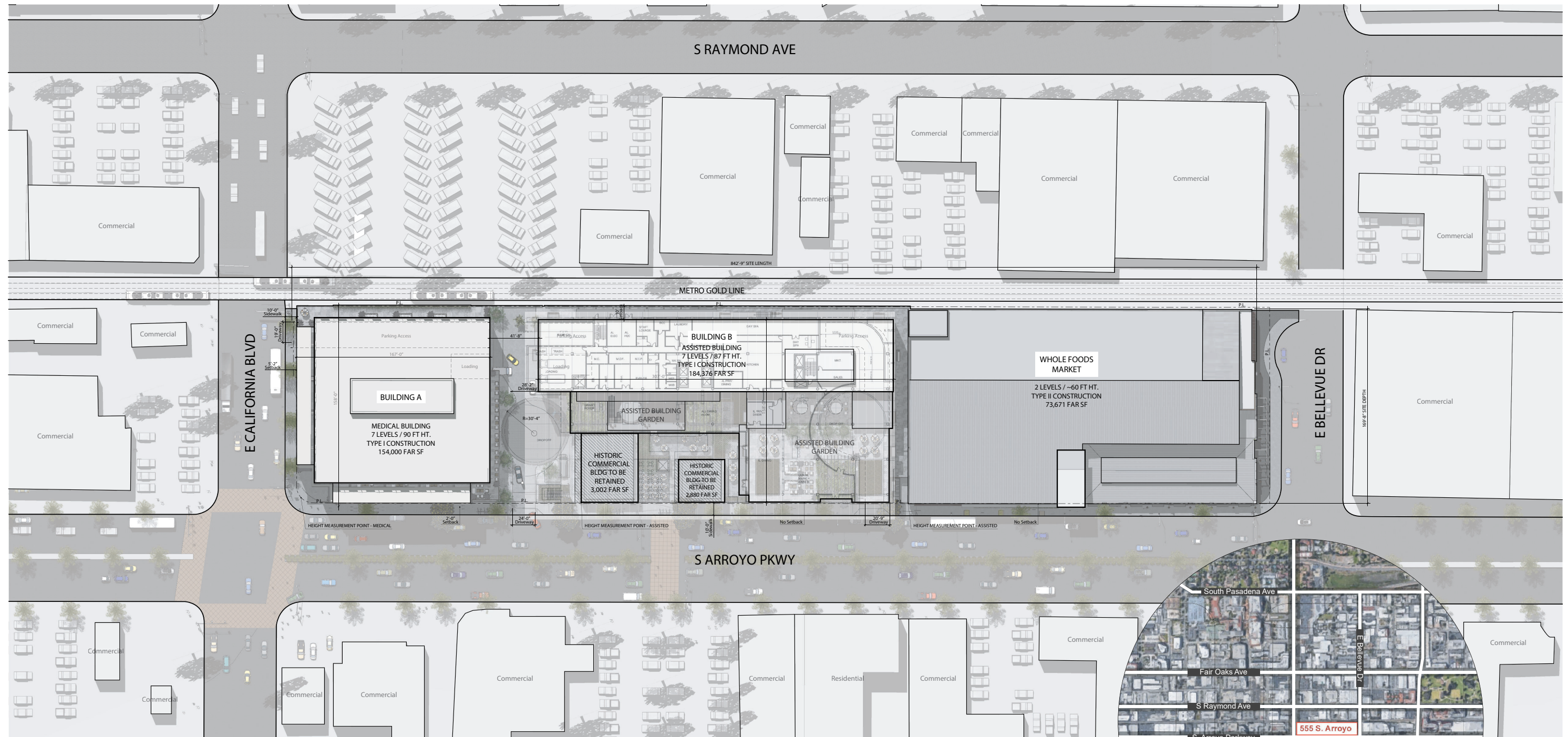
Table 2-3, Summary of Proposed Land Uses, on the following page summarizes the existing and proposed uses for the Project and the Project with Building A Residential/Commercial. Exhibit 2-5, First (Ground) Level Plan; Exhibit 2-6, Level 2 Plan; Exhibit 2-7, Level 3 Plan; Exhibit 2-8, Level 4 Plan; Exhibit 2-9, Level 5 Plan; Exhibit 2-10, Level 6 Plan; and Exhibit 2-11, Level 7 Plan present the floor plans from the ground floor through Level 7 for the Project.

Under the Project scenario, the medical office building would have commercial uses as well as a lobby, loading bay, and circulation areas on the Ground (first) level and medical office uses on Levels 2 through 7.

On the Ground (first) Level of the assisted living building, there would be a foyer, parlor, bistro, and dining room for open use; a private dining room for assisted living use; a casual dining/lounge, dining area, and private dining room for independent living use; and “back of house” facilities for the assisted living uses, such as a day spa, kitchen, laundry, staff lounge, and business offices; and a loading bay. There would be separate entrances and sets of elevator bays for use by assisted and independent living residents and guests. Levels 2 and 3 would be exclusively assisted living and include communal spaces; Level 4 would be a mix of assisted and independent living; and levels 5 through 7 would be exclusively independent living. Level 7 would also have a gym, billiard room, club room, and bistro lounge for independent living residents. As noted above, a total of 95 studio, one-, and two-bedroom senior housing units would be constructed as part of the assisted living building.

Under the Project with Building A Residential/Commercial scenario, the floor levels, building envelope, site layout, and open space would be the same as presented for the medical office building. Detailed floor plans for development of residential uses and ground floor commercial and management office, if the land uses in Building A are exchanged, have not been developed at the time of preparation of this Draft EIR. However, the dwelling units are anticipated to be market-rate apartments and/or condominiums of various sizes.

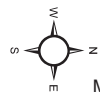
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Source: Adept 2021

Project Site Plan

Affinity Project



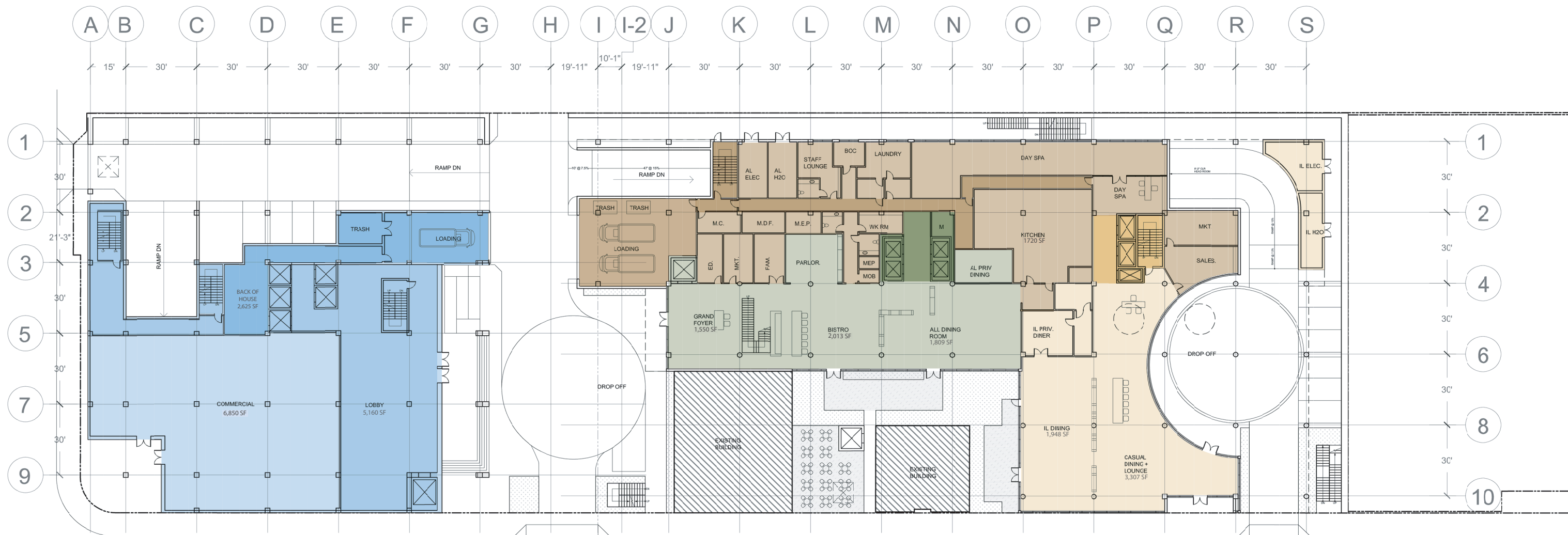
Map not to scale

Exhibit 2-4



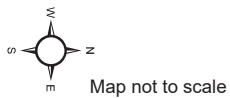
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- MOB COMMERCIAL
- MOB CIRCULATION/LOBBY
- MOB LOADING
- ASSISTED BLDG LOADING
- ASSISTED BLDG CORRIDOR
- ASSISTED BLDG BACK OF HOUSE
- ASSISTED BLDG AL ENTRY
- ASSISTED BLDG IL ENTRY



First (Ground) Level Plan

Affinity Project

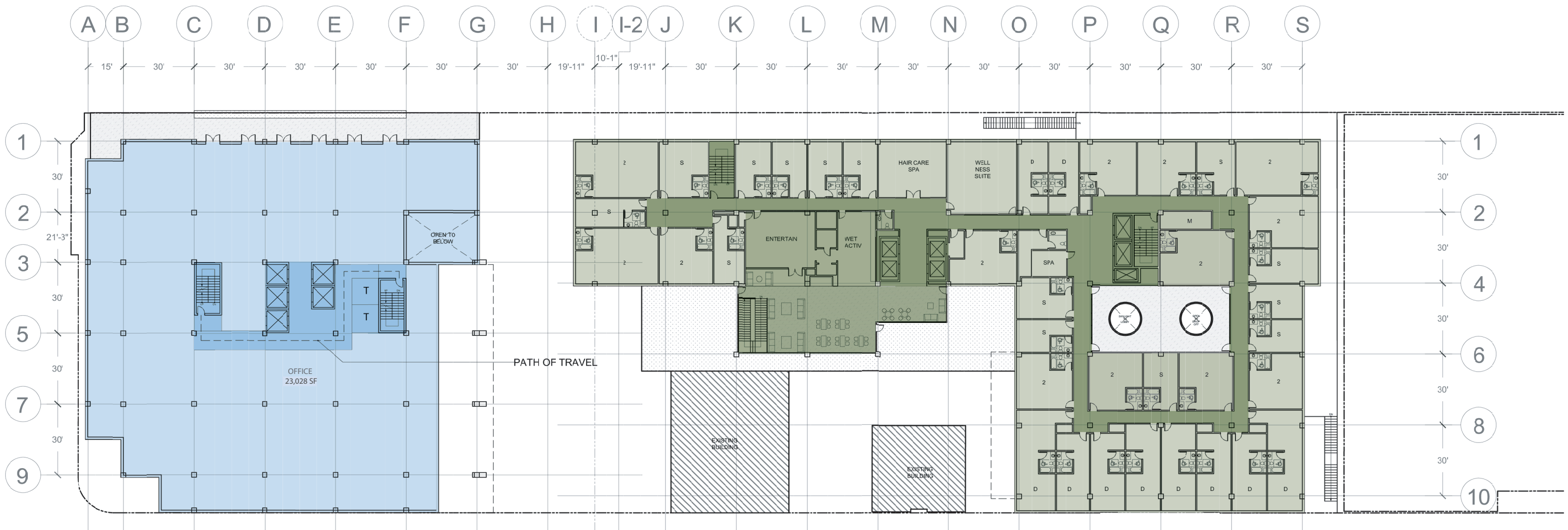


Source: Adept 2021

Exhibit 2-5



- MOB OFFICE
- MOB CIRCULATION
- ASSITED BLDG AL COMMON SPACE
- ASSITED BLDG AL CIRCULATION
- ASSISTED BLDG AL LIVING UNITS



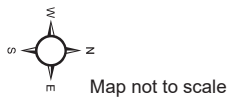
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Source: Adept 2021

Level 2 Plan

Exhibit 2-6

Affinity Project



- MOB OFFICE
- MOB CIRCULATION
- ASSITED BLDG AL COMMON SPACE
- ASSITED BLDG AL CIRCULATION
- ASSISTED BLDG AL LIVING UNITS



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Source: Adept 2021

Level 3 Plan

Exhibit 2-7

Affinity Project

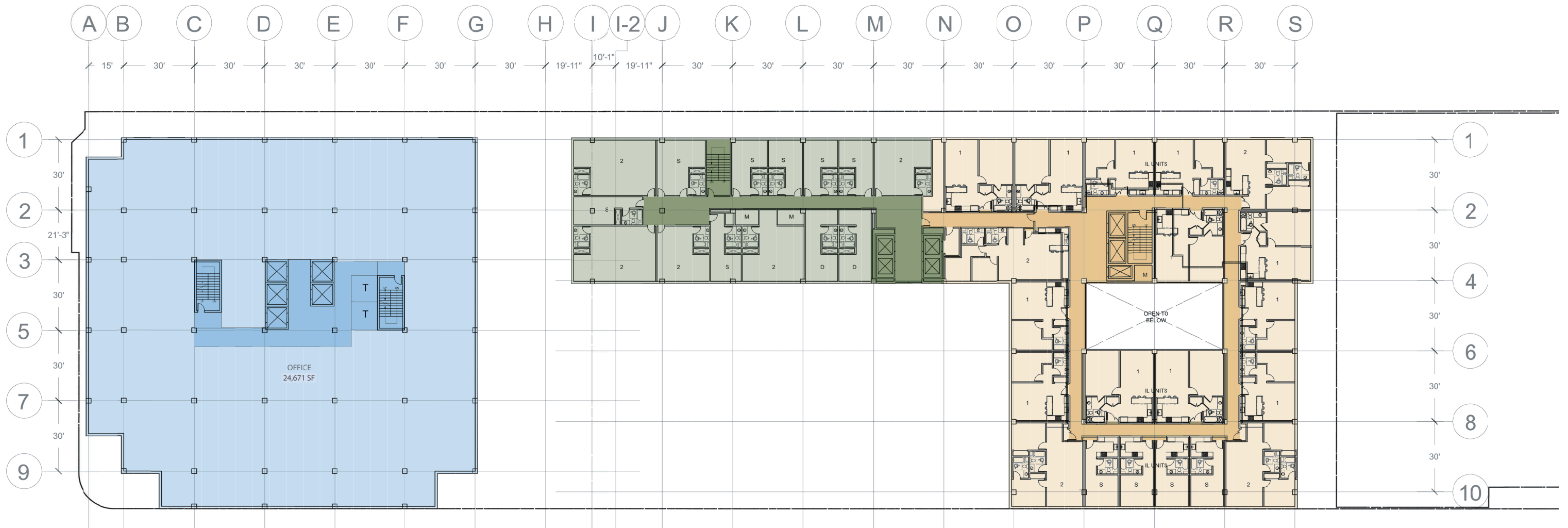


Map not to scale



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- MOB OFFICE
- MOB CIRCULATION
- ASSITED BLDG AL CIRCULATION
- ASSISTED BLDG AL LIVING UNITS
- ASSISTED BLDG IL CIRCULATION
- ASSISTED BLDG IL LIVING UNITS



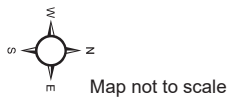
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Source: Adept 2021

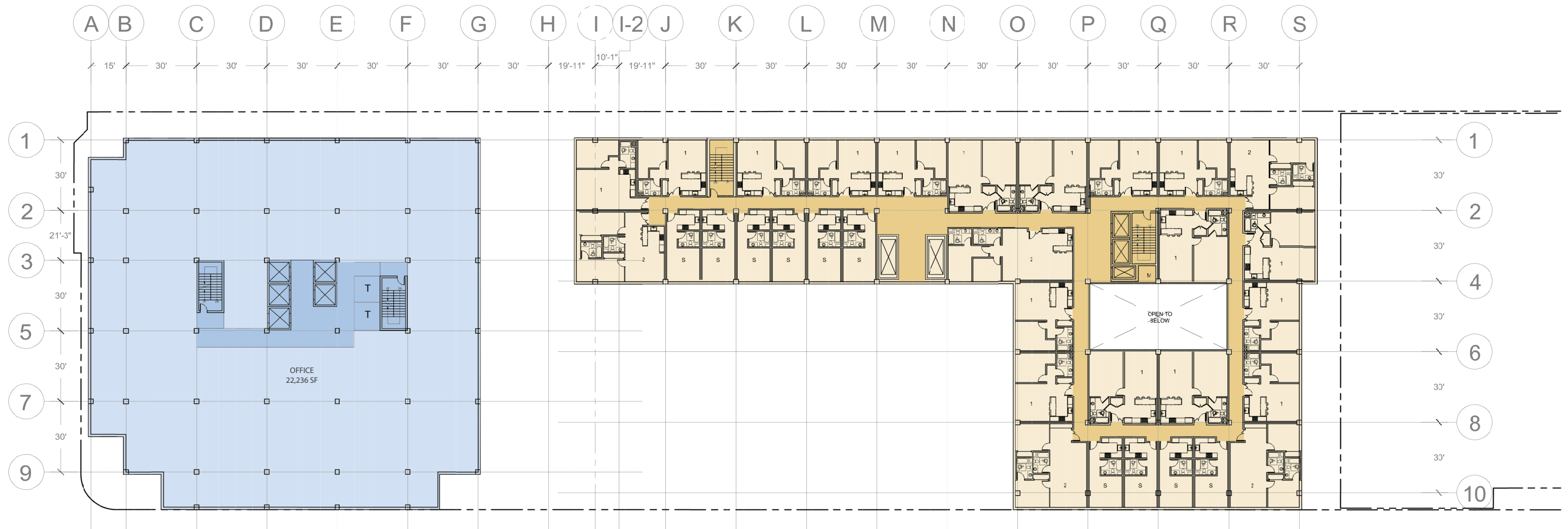
Level 4 Plan

Exhibit 2-8

Affinity Project



- MOB OFFICE
- MOB CIRCULATION
- ASSISTED BLDG IL CIRCULATION
- ASSISTED BLDG IL LIVING UNITS



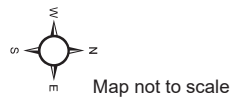
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Source: Adept 2021

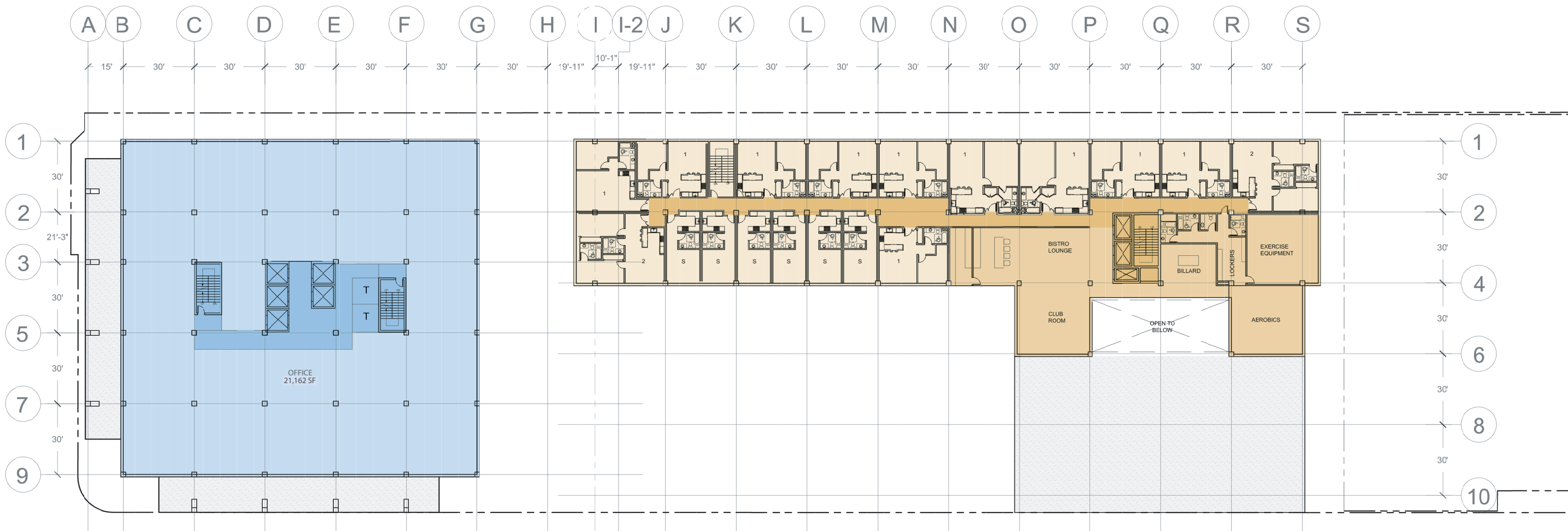
Level 5 Plan

Exhibit 2-9

Affinity Project



- MOB OFFICE
- MOB CIRCULATION
- ASSISTED BLDG IL CIRCULATION
- ASSISTED BLDG IL COMMON SPACE
- ASSISTED BLDG IL LIVING UNITS



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Source: Adept 2021

Level 6 Plan

Affinity Project

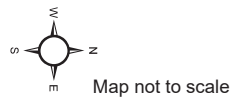
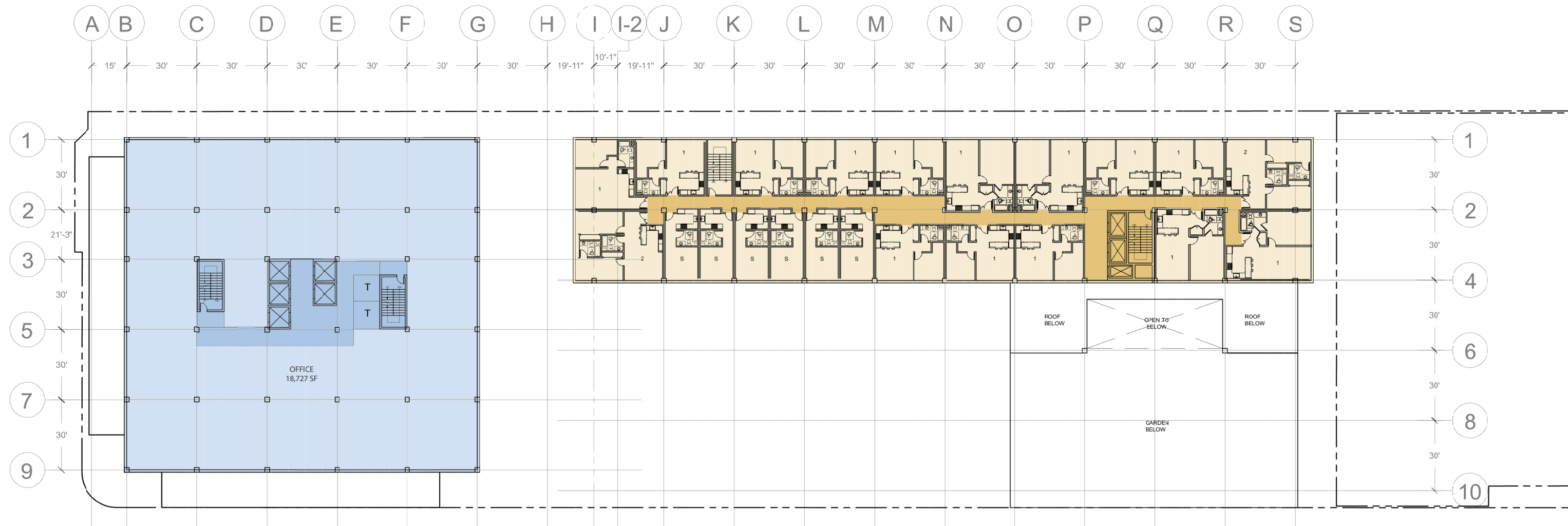


Exhibit 2-10



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- MOB OFFICE
- MOB CIRCULATION
- ASSISTED BLDG IL CIRCULATION
- ASSISTED BLDG IL LIVING UNITS



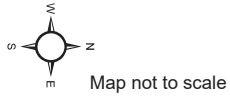
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Source: Adept 2021

Level 7 Plan

Exhibit 2-11

Affinity Project



**TABLE 2-3
SUMMARY OF PROPOSED LAND USES**

Existing Buildings to Remain		
Address	Use	Floor Area (Gross sf)
465 South Arroyo Parkway	Whole Foods Market	73,671 sf
501 South Arroyo Parkway (historic)	Gold Line Pilates	2,880 sf
523 South Arroyo Parkway (historic)	Town & Country Event Rentals	3,002 sf
<i>Total Square Footage</i>		<i>79,553 sf</i>
Parking (Whole Foods Structure)		275 spaces / 2 loading spaces
Project Development		
	Floor Area (Gross sf)	
	Medical Office Building (A)	Assisted Living Building (B)
Basement/Subterranean Levels	415,063	
Ground	14,635	25,377
2 nd	23,028	31,269
3 rd	26,671	29,107
4 th	26,671	29,107
5 th	26,671	29,107
6 th	21,162	21,299
7 th	21,162	19,110
Total Gross Square Footage	154,000 (Aboveground)	184,376 (Aboveground)
	753,439 (Including five subterranean levels spanning both buildings)	
Parking	Up to 850 spaces	
Total Aboveground Built Area (Existing + Proposed)	417,929	
Building Outline/Site Coverage	99,224 sf / 68 percent	
Proposed FAR	2.89	
Open Space	8,676	22,929
Project with Building A Residential/Commercial Development		
	Floor Area (Gross sf)	
	Residential/Commercial Building (A)	Assisted Living Building (B)
Differences from Project Scenario	Up to 197 dwelling units & 3,000 sf of ground-floor commercial	Same as Project
Total Square Footages	154,000 (Aboveground)	184,376 (Aboveground)
	670,427 (Including four subterranean levels spanning both buildings) ^a	
Parking	Up to 650 spaces	
Total Aboveground Built Area (Existing + Proposed)	417,929	
Building Outline/Site Coverage	99,224 sf / 68 percent	
Proposed FAR	2.89	
Open Space	8,676	22,929
^a Reflects one less subterranean parking level, all other floor area sizes are the same sf: square feet; N/A: not applicable; FAR: floor area ratio		

Design and Architecture

Exhibit 2-12, East and North Elevations, shows elevations of the Project from the east (Arroyo Parkway) and the north (Bellevue Drive); and Exhibit 2-13, West and South Elevations, shows elevations of the Project from the west (Gold Line tracks) and the south (California Boulevard). These elevations illustrate the massing and relative height of the proposed buildings among the existing buildings on the site to be retained and the adjacent streets and light rail line. The building configuration is further illustrated in the north-south cross-section presented on Exhibit 2-14, Cross Section (North-South). This shows a section of the Project as though viewing from South Arroyo Parkway, with the medical office building on the far left and the Whole Foods Market on the far right. The maximum building heights for the Project to the top of parapet, not including appurtenances, would range from 90 feet 6 inches to 93 feet 6 inches above ground level, as shown on Exhibits 2-12 through 2-14. As shown, portions of the Project step down in height, ranging approximately between 29 feet and 77 feet 6 inches in height, not including appurtenances. Consistent with the site zoning, roof mounted appurtenances covering not more than 25 percent of the roof area may exceed the established height limit by a maximum of 15 feet. As defined by the City, roof mounted appurtenances may include a tower, spire, cupola, chimney, penthouse, water tank, or other similar structures that are attached to a structure and not intended for human occupancy.

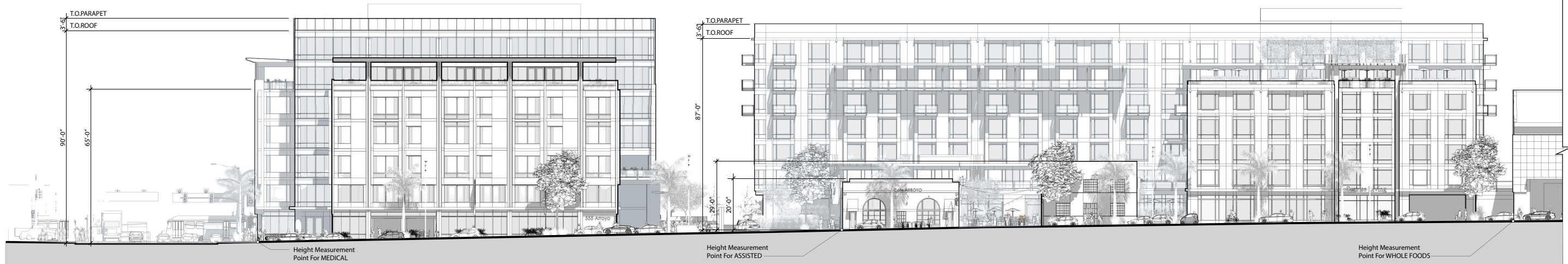
A shadow study was prepared by the Applicant to determine whether the proposed buildings would adversely affect the solar access of surrounding land uses. Specifically, Section 17.40.090(D) of the Pasadena Municipal Code (PMC) states:

Solar access. No structure shall be established or enlarged unless it has been reviewed by the Zoning Administrator for its effect on solar access to existing and future solar applications on adjacent properties subject to the following findings:

1. There are no conditions, covenants, and restrictions existing or proposed that are adverse to solar energy systems;
2. Solar access has been addressed within the context of any required Environmental Impact Report; and
3. The proposed structure will not prohibit or unreasonably restrict the use of solar energy systems on adjacent properties.

Exhibit 2-15, Affinity Project Shadow Study, illustrates the anticipated shade generated by the proposed buildings at 10:00 AM and 2:00 PM on both the Summer solstice (longest day of the year) and Winter equinox (shortest day of the year). As shown, at the Summer solstice the shade generated is limited to overlapping the public right-of-way (ROW) to the east and west. As expected, at the Winter equinox, the shade generated extends a greater distance to the north, east, and west. To the north and east, it extends only onto public ROW. To the west, in the morning hours the shade would extend to slightly overlap the rear of some of the existing structures facing South Raymond Avenue. These include the KPCC/Southern California Public Radio buildings at 474 South Raymond Avenue and the Self-Storage and U-Haul business at 552 South Raymond Avenue. Neither of these businesses depend on sun/solar access for their operations nor are there open areas for employee or visitor use near the rear of these buildings. Most importantly, there is abundant flat roof area remaining beyond the limited shade generated during a portion of the year for both businesses to implement solar energy systems, should it be desired in the future. Therefore, the Project would not prohibit or unreasonably restrict the use of solar energy systems on adjacent structures.

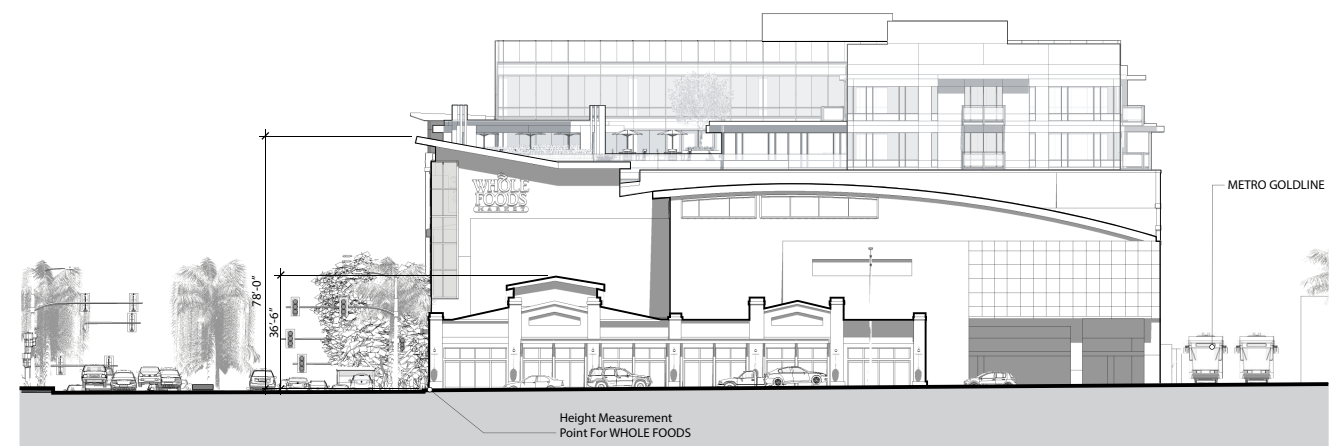
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East Elevation



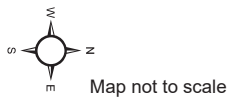
East Elevation Continue



North Elevation

East and North Elevations

Affinity Project



Source: Adept 2021

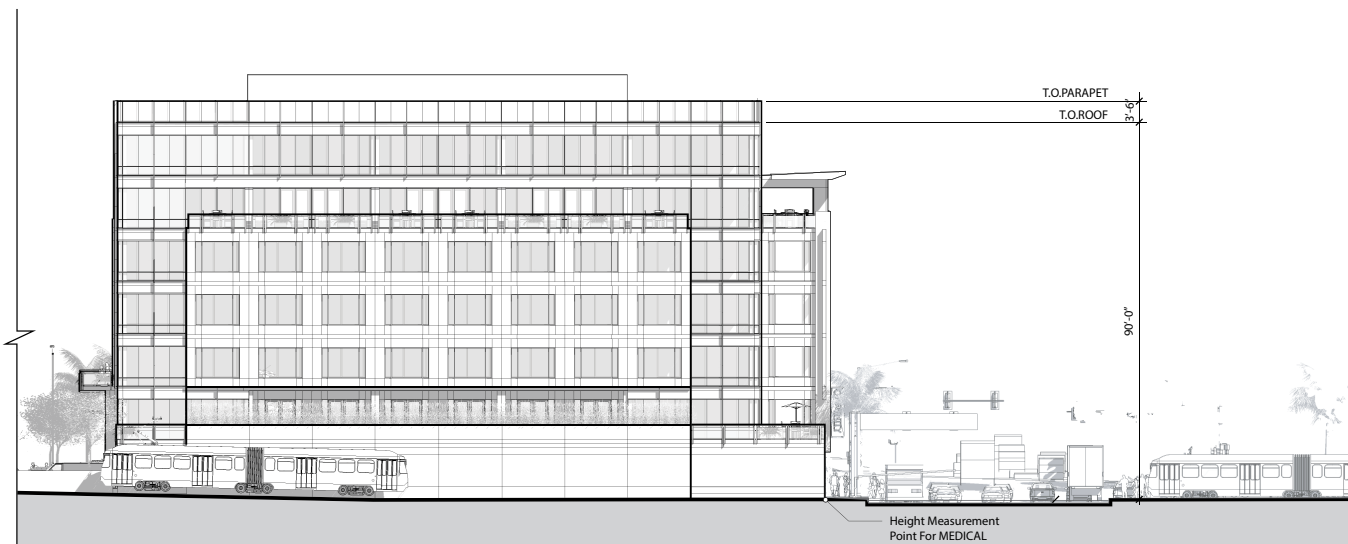
Exhibit 2-12



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West Elevation



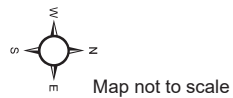
West Elevation Continue



South Elevation

West and South Elevations

Affinity Project

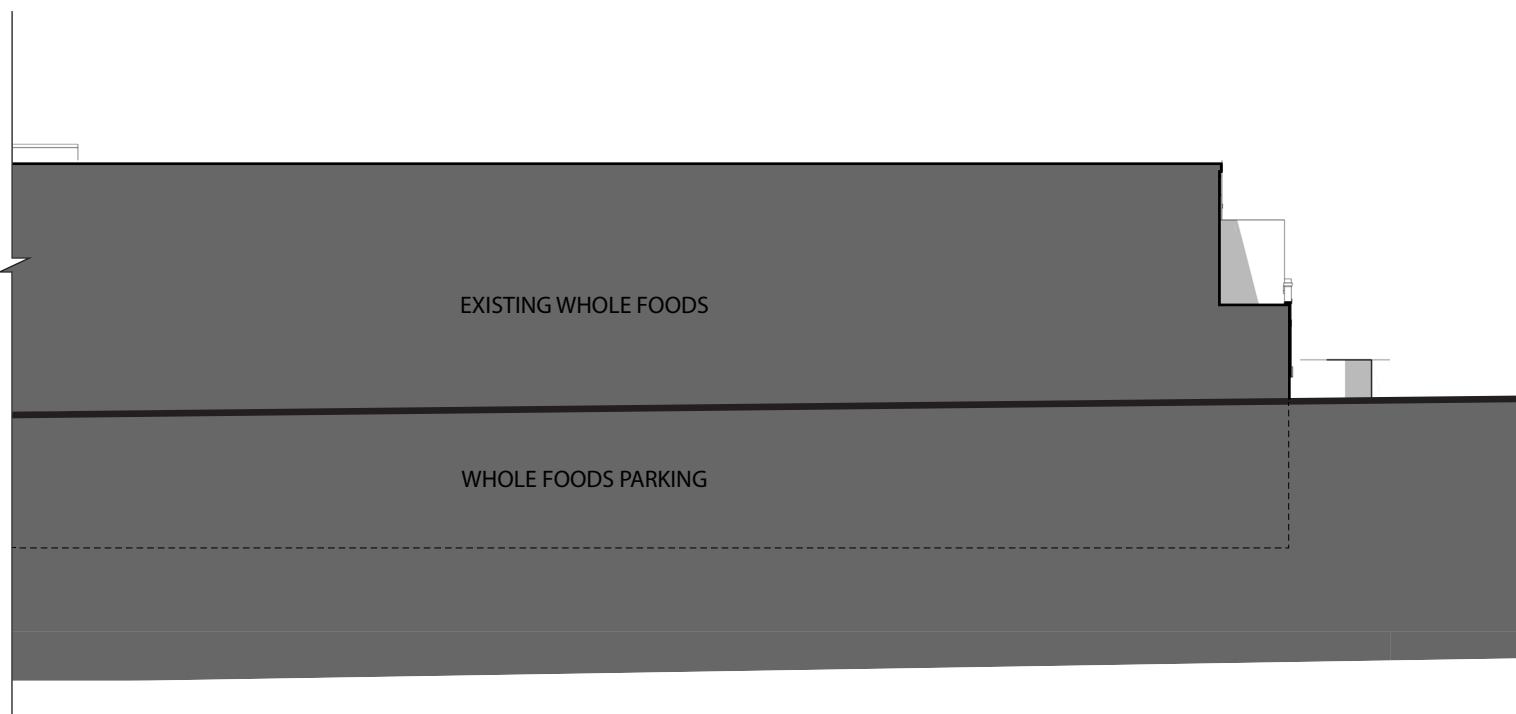
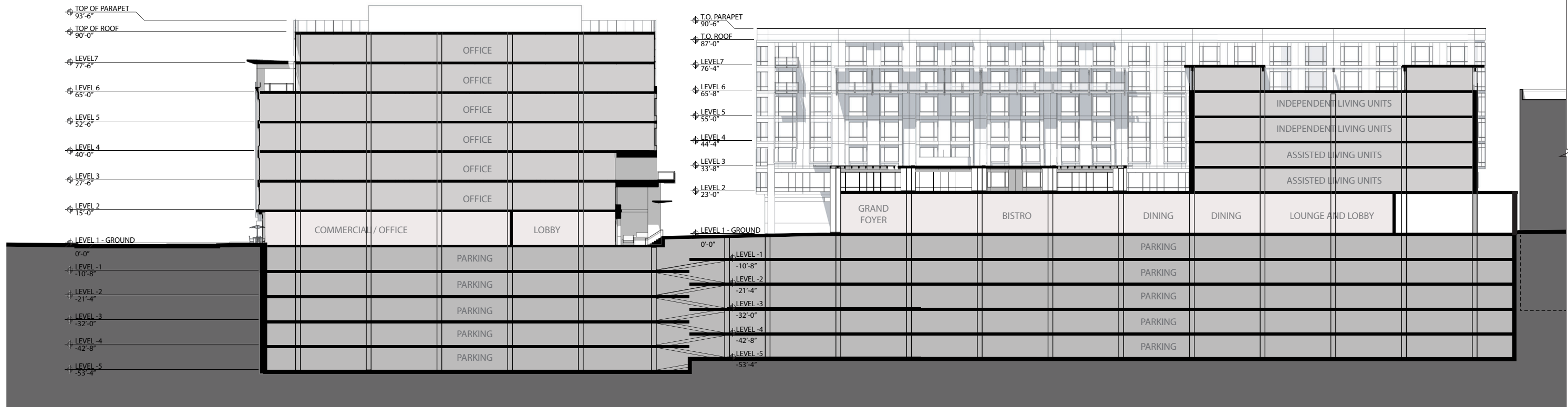


Source: Adept 2021

Exhibit 2-13



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Source: Adept 2021

Cross Section (North-South)

Exhibit 2-14

Affinity Project

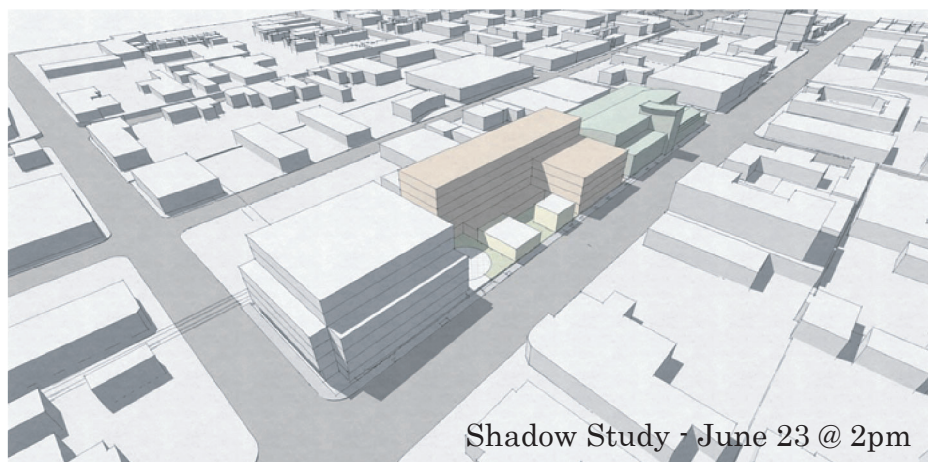


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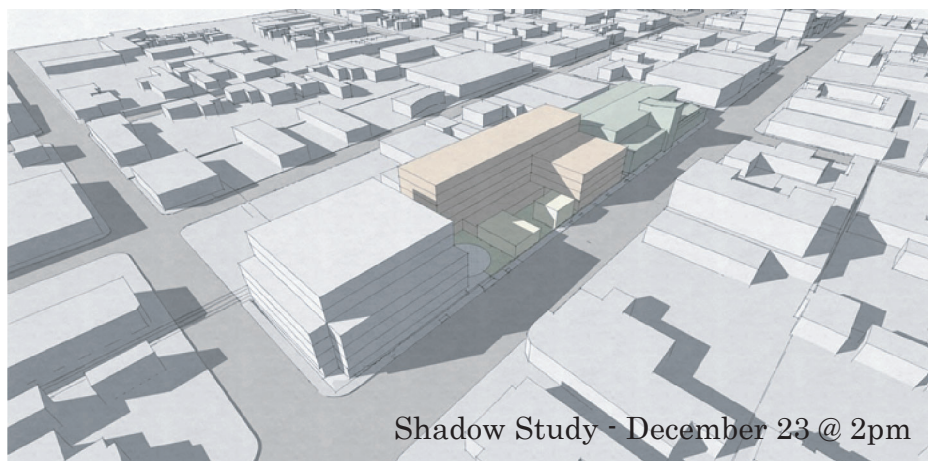


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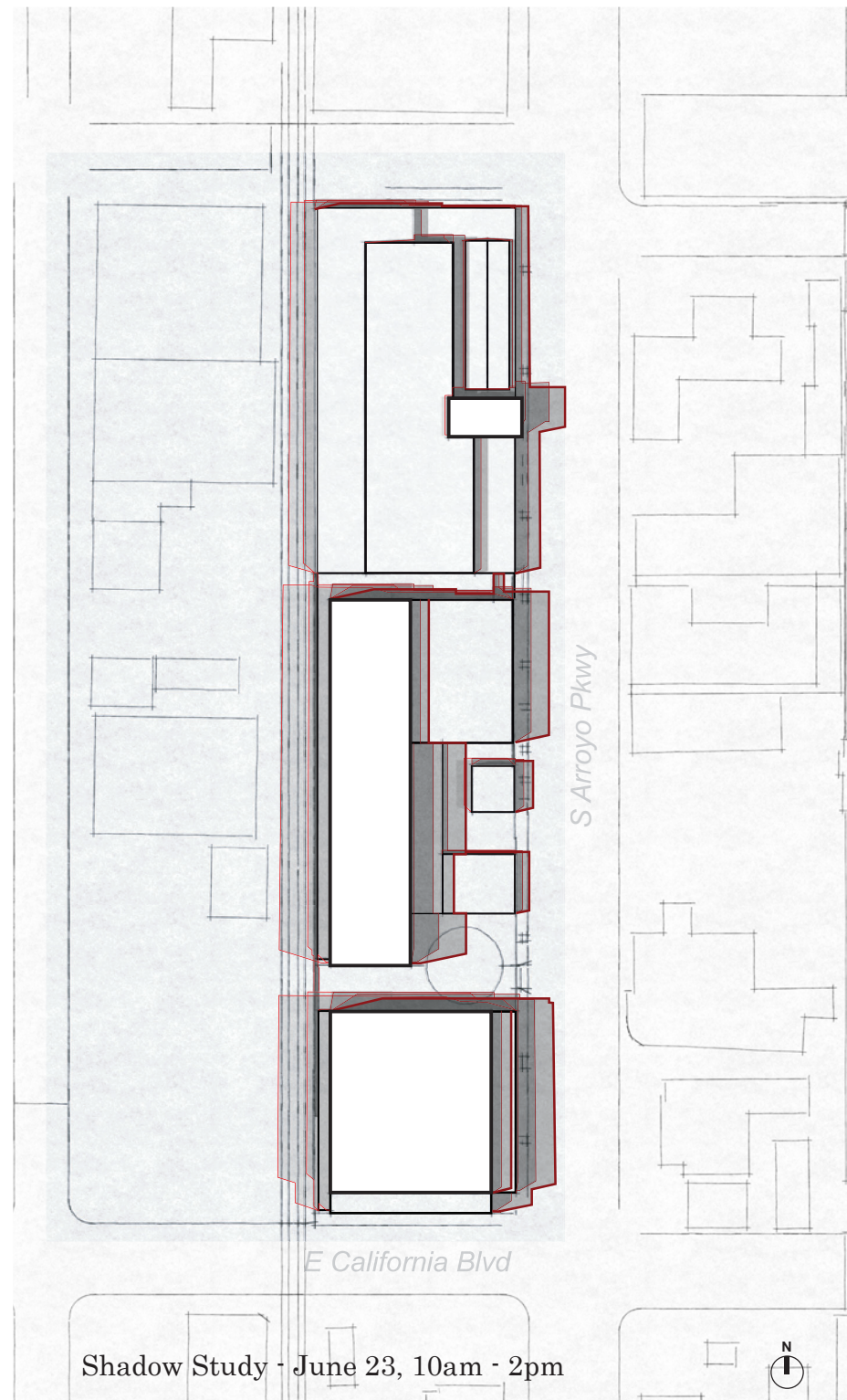
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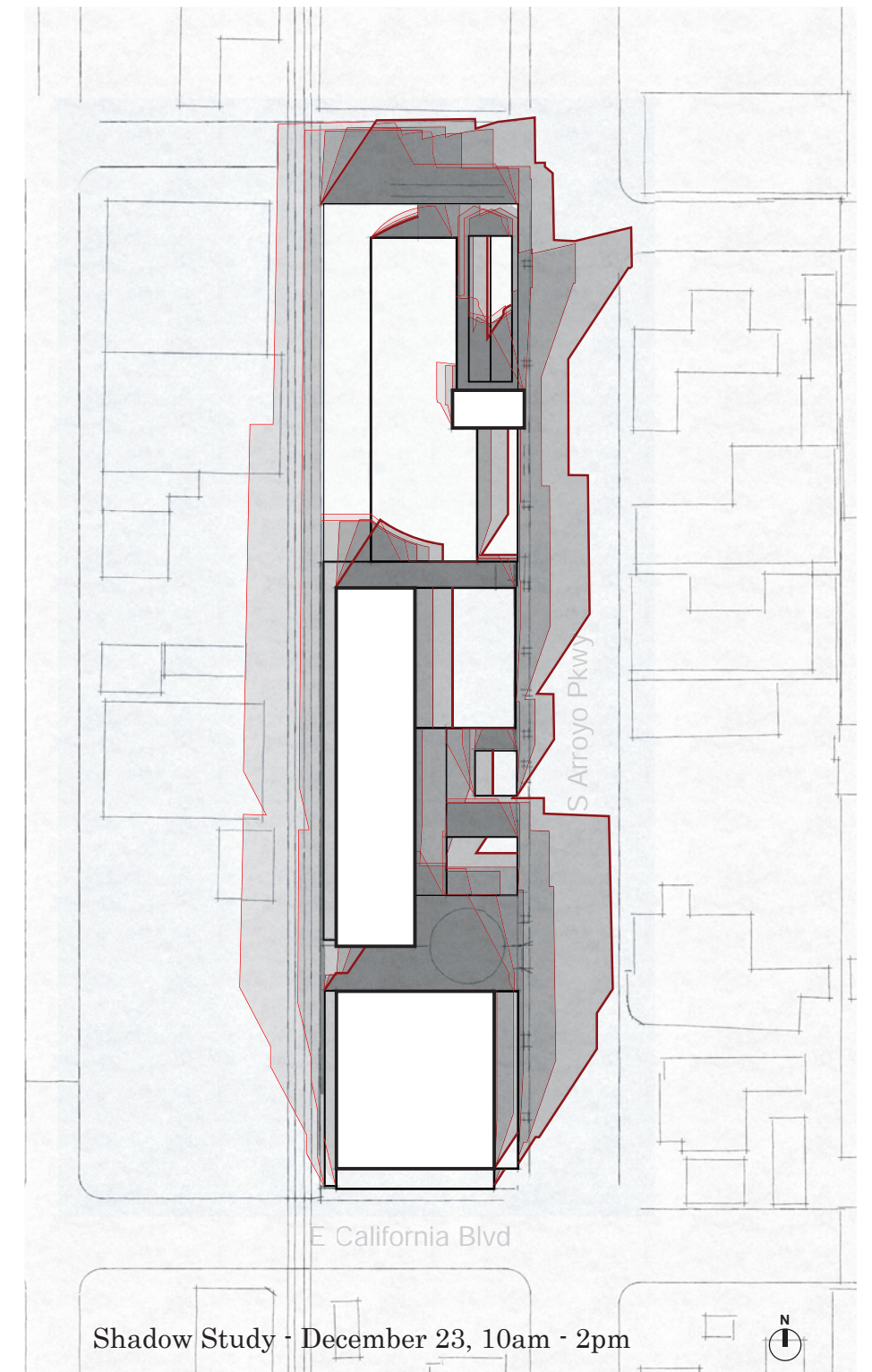
Shadow Study - June 23 @ 2pm



Shadow Study - December 23 @ 2pm



Shadow Study - June 23, 10am - 2pm



Shadow Study - December 23, 10am - 2pm

Affinity Project Shadow Study

Affinity Project

Source: Adept 2021

Exhibit 2-15



The proposed building facades incorporate numerous window openings to provide views and to avoid blank, massive-looking building faces. The facades would also be articulated with patios, window shades, and varying surface treatments to provide variation and break up the surface of the buildings. Portions of both the proposed buildings would be set back from the widest part of the building envelope and some portions of the buildings would extend only to Level 4 and Level 6. Additionally, the ground floor would be slightly taller than the remaining levels, at 15 feet high. This would act to differentiate the ground floor and, combined with some unique architectural features for this level, create a human-scale and pedestrian-friendly environment. The assisted living building would have a steel stud exterior wall clad with a combination of textured face brick and smooth plaster or precast concrete accents. Trellises and balcony railings would be painted steel with a cement fiber composite soffit and sealed concrete decking. Glazing would be factory finished aluminum or steel operable frames with bronze-, gray-, or green-tinted thermal glass and spandrel glass at floors and vision glass heads. Exterior decks would be a double slab construction with paver tiles. The medical office building would have a combination of aluminum frame glass curtain wall and steel stud exterior wall clad with a mixture of textured face brick and smooth plaster or glass fiber reinforced concrete precast accents on the lower floors of the building. Glazing would be a factory finished aluminum structural silicone glazing system with bronze-, gray-, or green-tinted thermal glass and spandrel glass at floors and vision glass heads. Exterior decks would be a double slab construction with paver tiles. The Project proposes to maintain visual continuity through the consistent application of high-quality building, landscape, and hardscape design and materials. Only non-reflective building materials would be used.

Under the Project with Building A Residential/Commercial, the setbacks, scale, massing, and other aspects of the architectural design would be the same as discussed for the Project with the medical office building.

The existing historic structures at 501 and 523 South Arroyo Parkway would be preserved in place. Specific future tenant improvement plans for these historical resources on the Project site are still in the conceptual phase as of the preparation of this Draft EIR. However, the plans do not anticipate demolishing, moving, or making major alterations to these structures. Proposed tenant improvements to the exterior of these two structures would be reviewed by an architectural historian meeting the Secretary of the Interior's Professional Qualifications Standards for architectural history or historic architecture. Specifically, these plans shall be reviewed by the qualified architectural historian for consistency with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

As noted in Section 2.5 further below, the Project, or Project with Building A Residential/Commercial, would be required to undergo the Design Review process. The Design Review considers factors such as compatibility with surroundings, massing, proportion, siting, void-to-void relationships, and compliance with applicable design guidelines.

Landscape, Hardscape, and Lighting

Approximately 31,605 sf of open space, including public and private (for solely resident and staff use space), would be provided across the site for both the Project and Project with Building A Residential/Commercial scenarios. As discussed previously, the Project would result in the removal of 23 non-protected non-native trees on the Project site and 2 protected, non-native street trees. As shown on Exhibit 2-16a, Conceptual Landscape Plan, the Project would include a total of 25 trees in above-grade planters within the site. The 15 remaining protected street trees would be protected in place during construction and remain after the Project is implemented. As discussed in Section 2.4, Biological Resources, of the Initial Study, the Urban Forestry section of the City's Public Works Department typically requires a fee, dependent on the size of the tree(s) being removed, to be remitted into the City's street tree fund. For the Project, a planned condition of approval calls for planting of one new street tree along both Arroyo Parkway and California

Boulevard. The Project would also include a total of 25 trees in above-grade planters within the site.

Exhibits 2-16b through 2-16e present the conceptual landscape plan for Levels 1 through 6. As shown, each level of the Project would include placement of drought-tolerant species of ornamental trees, shrubs, and groundcovers near outdoor seating areas and passages on the ground level and on above-ground building levels. Regarding the creation of a heat island and/or increase of the local heat index, the Project would result in at worst a neutral contribution to the heat index in the area. Heat islands are created by a combination of heat-absorbing surfaces (such as dark pavement and roofing), heat-generating activities (such as engines and generators), and the absence of vegetation (which provides evaporative cooling).

It is noted that of the 23 on-site trees to be removed, 19 are queen palms (*Syagrus romanzoffiana*), which provide little shade. They do provide some measure of evaporative cooling, which can help offset the heat index, but not at ground level. Additionally, the site currently contributes to the urban heat island effect by consisting almost entirely of asphalt or concrete surface and buildings. The hydrology study prepared for the Project (and provided as Appendix C of the Initial Study) assessed that the site is currently 97 percent impervious surface area. With implementation of the Project, the site would be 98 percent ground-level impervious surface area. However, with the Project there is a net increase in vegetation on the site compared to the existing condition, with landscaping at the ground level and on levels 2, 3, and 6. All vegetation, whether in ground or planters, provides evaporative cooling. Under the Project with Building A Residential/Commercial, the landscape (including tree removal and planting), hardscape, and lighting would be the same as that discussed for the Project.

Project Circulation, Access, and Parking

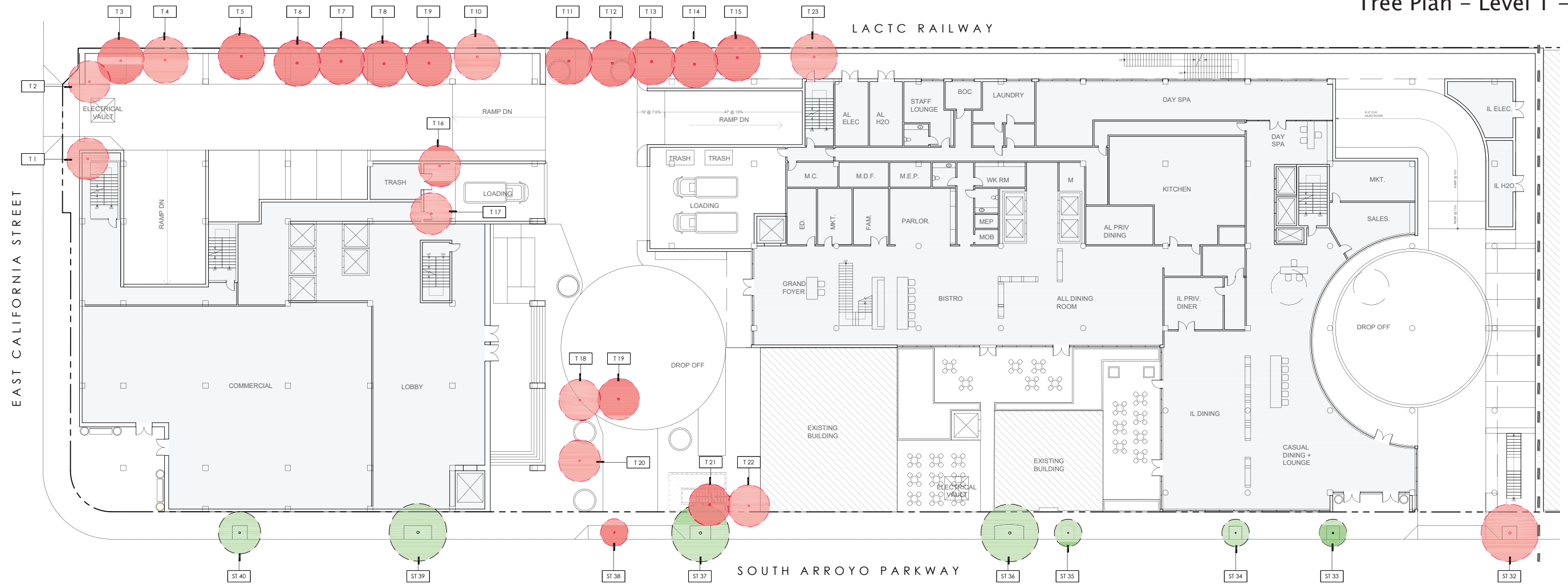
As shown on Exhibit 2-5, the Project uses south of Whole Foods Market would have three ingress/egress points, one on California Boulevard and two on South Arroyo Parkway. Two circular drop-off areas would be constructed, with one situated on the north side of each proposed building. Under the Project, a total of 5 levels of subterranean parking with up to 850 parking spaces would be constructed to serve the proposed land uses and the existing structures at 501 and 523 South Arroyo Parkway. The ingress/egress on East Bellevue Drive to the 275-space Whole Foods Market parking structure would remain and continue serving the grocery store; this parking structure would be entirely separated from the proposed parking structure.

Under the Project with Building A Residential/Commercial, the circulation and access would be the same as that discussed for the Project. As noted above, this scenario would provide 200 fewer parking spaces with one less level of subterranean parking when compared to the Project.

Utilities

Wet and dry utilities are currently provided to the Project site and surrounding area by various providers, as listed below. The agencies responsible for these services are in parentheses:

- Water facilities (Pasadena Water and Power [PWP]);
- Wastewater facilities (Los Angeles County Sanitation Districts and City of Pasadena Department of Public Works);
- Storm drain facilities (Los Angeles County Flood Control District and City of Pasadena Department of Public Works);
- Electricity (Southern California Edison); and
- Natural Gas (Southern California Gas Company).



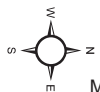
EXISTING SITE TREES						EXISTING SITE TREES CONTINUED					
TAG	BOTANICAL NAME	COMMON NAME	SIZE DBH *	DISPOSITION	REPLACEMENT RATIO	TAG	BOTANICAL NAME	COMMON NAME	SIZE DBH *	DISPOSITION	REPLACEMENT RATIO
T 1	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 20'	REMOVE	2 EA - 36" BOX	T 18	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 17'	REMOVE	1 EA - 36" BOX
T 2	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX	T 19	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 17'	REMOVE	1 EA - 36" BOX
T 3	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX	T 20	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 17'	REMOVE	1 EA - 36" BOX
T 4	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 20'	REMOVE	2 EA - 36" BOX	T 21	PINUS CANARIENSIS	CANARY ISLAND PINE	20.8	REMOVE	2 EA - 36" BOX
T 5	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX	T 22	PINUS CANARIENSIS	CANARY ISLAND PINE	17.4	REMOVE	0
T 6	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 20'	REMOVE	2 EA - 36" BOX	T 23	CARYA ILLINOINENSIS	PECAN	5.5	REMOVE	0
T 7	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX					TOTAL NUMBER OF REPLACEMENT TREES REQUIRED	26 EA - 36" BOX
T 8	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 9	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 10	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 11	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 12	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 20'	REMOVE	2 EA - 36" BOX						
T 13	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 14	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 15	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 15'	REMOVE	1 EA - 36" BOX						
T 16	SYAGRUS ROMANZOFFIANA	QUEEN PALM	BT 20'	REMOVE	2 EA - 36" BOX						
T 17	AFROCARPUS FALCATUS	AFRICAN FERN PINE	4.3, 7.3 & 7.4	REMOVE	0						

EXISTING STREET TREES					
TAG	BOTANICAL NAME	COMMON NAME	SIZE DBH *	DISPOSITION	REPLACEMENT RATIO
ST 24	CINNAMOMUM CAMPHORA	CAMPHOR TREE	4.6	PROTECT IN PLACE	-
ST 25	FICUS BENJAMINA	WEeping FIG	3, 3.5	PROTECT IN PLACE	-
ST 26	PHOENIX DACTYLIFERA	DATE PALM	BT 20'	PROTECT IN PLACE	-
ST 27	AFROCARPUS FALCATUS	AFRICAN FERN PINE	18.9	PROTECT IN PLACE	-
ST 28	AFROCARPUS FALCATUS	AFRICAN FERN PINE	1	PROTECT IN PLACE	-
ST 29	PHOENIX DACTYLIFERA	DATE PALM	BT 25'	PROTECT IN PLACE	-
ST 30	PHOENIX DACTYLIFERA	DATE PALM	BT 25'	PROTECT IN PLACE	-
ST 31	PHOENIX DACTYLIFERA	DATE PALM	BT 25'	PROTECT IN PLACE	-
ST 32	AFROCARPUS FALCATUS	AFRICAN FERN PINE	21.5	REMOVE	-
ST 33	PHOENIX DACTYLIFERA	DATE PALM	BT 25'	PROTECT IN PLACE	-
ST 34	AFROCARPUS FALCATUS	AFRICAN FERN PINE	3.7	PROTECT IN PLACE	-
ST 35	AFROCARPUS FALCATUS	AFRICAN FERN PINE	1	PROTECT IN PLACE	-
ST 36	AFROCARPUS FALCATUS	AFRICAN FERN PINE	20.2	PROTECT IN PLACE	-
ST 37	AFROCARPUS FALCATUS	AFRICAN FERN PINE	15.2	PROTECT IN PLACE	-
ST 38	PHOENIX DACTYLIFERA	DATE PALM	BT 20'	REMOVE	1 STREET TREE SPECIES PER CITY OF PASADENA
ST 39	AFROCARPUS FALCATUS	AFRICAN FERN PINE	20	PROTECT IN PLACE	-
ST 40	PHOENIX DACTYLIFERA	DATE PALM	BT 25'	PROTECT IN PLACE	-
TOTAL NUMBER OF REPLACEMENT STREET TREES REQUIRED					1 EA - 36" BOX

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Conceptual Landscape Plan

Affinity Project



Map not to scale

Source: Adept 2021

Exhibit 2-16a



LACTC RAILWAY

EAST CALIFORNIA STREET



SOUTH ARROYO PARKWAY

PLANT MATERIAL LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WUCOLS REG 4
	CERCIS OCCIDENTALIS	WESTERN REDBUD	36" BOX	4	LOW
	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL FRUITLESS OLIVE	60" BOX	1	LOW
	TIPUANA TIPU	TIPU TREE	36" BOX	6	MODERATE
	ANIGOZANTHOS 'ORANGE CROSS'	ORANGE KANGAROO PAW	1 GAL	-	LOW
	CUPRESSUS ARIZONICA 'GLAUCA'	ARIZONA BLUE CYPRESS	15 GAL	-	VERY LOW
	LANTANA MONTIVIDENSIS	TRAILING LANTANA	1 GAL	-	LOW
	LEUCADENDRON SAFARI 'GOLD STRIKE'	YELLOW CONEBUSH	5 GAL	-	LOW
	LOROPETALUM CHINENSE 'CHINA PINK'	CHINA PINK FRINGE FLOWER	5 GAL	-	MODERATE



CERCIS OCCIDENTALIS | WESTERN REDBUD



OLEA EUROPAEA 'SWAN HILL' | SWAN HILL FRUITLESS OLIVE



TIPUANA TIPU | TIPU TREE



ANIGOZANTHOS 'ORANGE CROSS' | ORANGE KANGAROO PAW



CUPRESSUS ARIZONICA 'GLAUCA' | BLUE ARIZONA CYPRESS



LANTANA MONTIVIDENSIS | TRAILING LANTANA



LEUCADENDRON SAFARI 'GOLD STRIKE' | YELLOW CONEBUSH

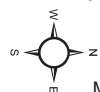


LOROPETALUM CHINENSE 'CHINA PINK' | CHINA PINK FRINGE FLOWER

Source: Adept 2021

Conceptual Landscape Plan

Affinity Project



Map not to scale

Exhibit 2-16b





PLANT MATERIAL LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WUCOLS REG 4
	CHILOPSIS LINEARIS 'BURGUNDY'	BURGUNDY DESERT WILLOW	36" BOX	3	LOW
	GINKGO BILOBA 'AUTUMN GOLD'	AUTUMN GOLD GINKGO TREE	36" BOX	3	MODERATE
	BULBINE FRUTESCENS 'HALLMARK'	ORANGE STALKED BULBINE	1 GAL	-	LOW
	CALLISTEMON 'LITTLE JOHN'	LITTLE JOHN BOTTLEBRUSH	5 GAL	-	LOW
	LEUCOPHYLLUM FRUTESCENS	TEXAS SAGE	5 GAL	-	LOW
	LEUCADENDRON 'SAFARI SUNSET'	SAFARI SUNSET CONEBUSH	15 GAL	-	MODERATE
	LIRIOPE 'PURPLE EXPLOSION'	PURPLE EXPLOSION LILYTURF	5 GAL	-	MODERATE
	NASSELLA TENUISSIMA	MEXICAN FEATHER GRASS	1 GAL	-	LOW



CHILOPSIS LINEARIS 'BURGUNDY' | BURGUNDY DESERT WILLOW



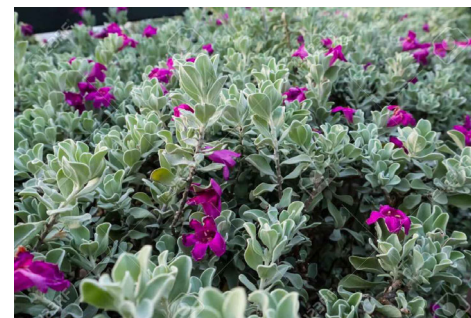
GINKGO BILOBA 'AUTUMN GOLD' | AUTUMN GOLD GINKGO



BULBINE FRUTESCENS 'HALLMARK' | ORANGE STALKED BULBINE



CALLISTEMON 'LITTLE JOHN' | LITTLE JOHN BOTTLEBRUSH



LEUCOPHYLLUM FRUTESCENS | TEXAS SAGE



LEUCADENDRON 'SAFARI SUNSET' | SAFARI CONEBUSH



LIRIOPE 'PURPLE EXPLOSION' | PURPLE EXPLOSION LILYTURF



NASSELLA TENUISSIMA | MEXICAN FEATHER GRASS

Source: Adept 2021

Conceptual Landscape Plan

Affinity Project

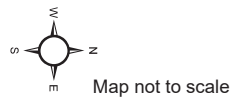


Exhibit 2-16c





PLANT MATERIAL LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WUCOLS REG 4
	BRAHEA ARMATA	BLUE HESPER PALM	36" BOX	5	LOW
	ALOE ARBORESCENS	TORCH ALOE	15 GAL	-	LOW
	EREMOPHILA GLABRA	BLUE HORIZON	1 GAL	-	LOW
	FURCRAEA FOETIDA 'MEDIOPICTA'	-	15 GAL	-	LOW
	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	-	LOW
	LEPTOSPERMUM SCOPARIUM	NEW ZEALAND TEA TREE	15 GAL	-	LOW
	SENECIO SERPENS	BLUE CHALK STICKS	1 GAL	-	LOW
	TRADESCANTIA PALLIDA	PURPLE HEART	1 GAL	-	LOW



BRAHEA ARMATA | BLUE HESPER PALM



ALOE ARBORESCENS | TORCH ALOE



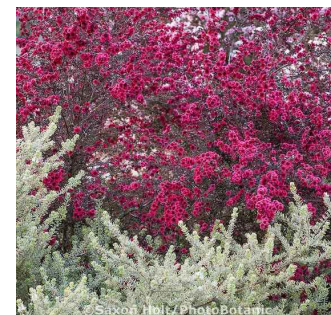
TIPUANA TIPU | TIPU TREE



FURCRAEA FOETIDA 'MEDIOPICTA'



HESPERALOE PARVIFLORA | RED YUCCA



LEPTOSPERMUM SCOPARIUM | NEW ZEALAND TEA TREE



SENECIO SERPENS | BLUE CHALK STICKS



TRADESCANTIA PALLIDA | PURPLE HEART

Source: Adept 2021

Conceptual Landscape Plan

Affinity Project

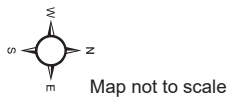
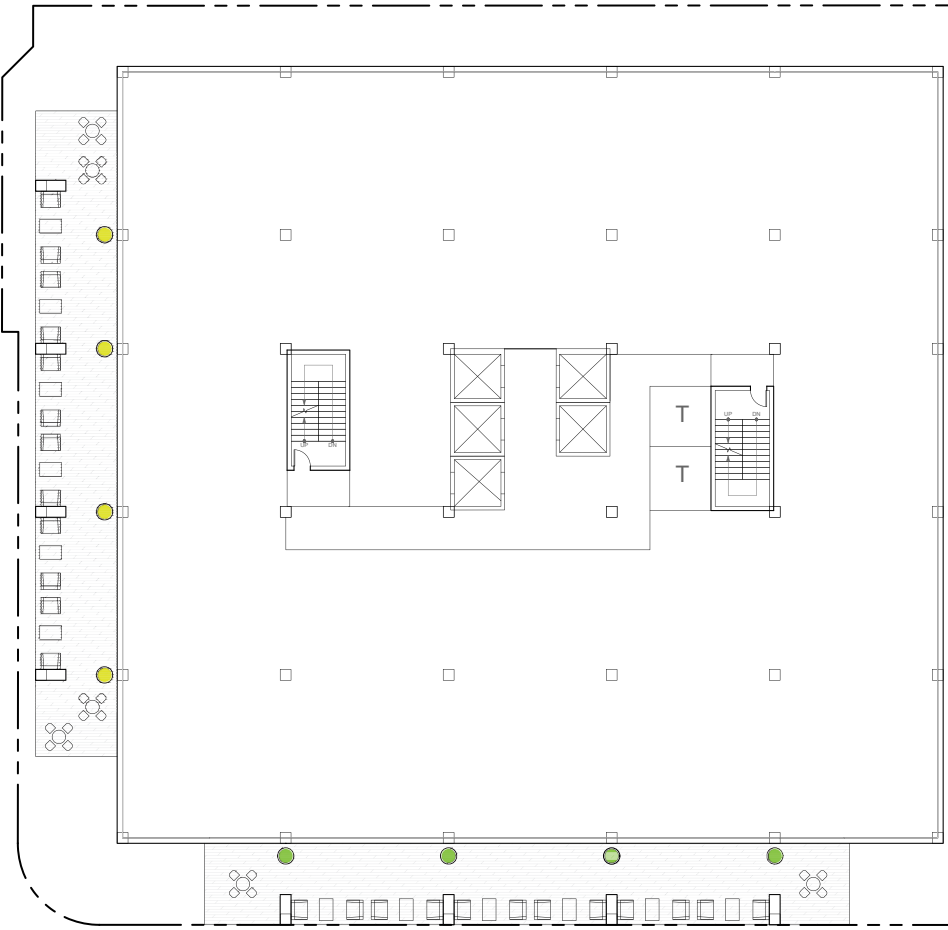


Exhibit 2-16d





PLANT MATERIAL LEGEND					
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	WUCOLS REG 4
	BAUHINIA VARIEGATA 'PUPUREA'	PURPLE ORCHID TREE	36" BOX	4	MODERATE
	CERCIDIUM X 'DESERT MUSEUM'	DESERT MUSEUM PALO VERDE	36" BOX	12	LOW
	ASPARAGUS DENSIFLORUS 'MEYERS'	MEYERS ASPARAGUS	5 GAL	-	MODERATE
	EUPHORBIA TURCALLI	STICKS ON FIRE	15 GAL	-	VERY LOW
	LEUCOSPERMUM 'SCARLET RIBBON'	NODDING PINCUSHION	5 GAL	-	LOW
	LEYMUS ARENARIUS 'BLUE DUNE'	BLUE DUNE LYME GRASS	1 GAL	-	LOW
	MUHLENBERGIA CAPILLARIS	PINK CLOUD MUHLY GRASS	1 GAL	-	MODERATE
	OLEA EUROPAEA 'LITTLE OLLIE'	DWARF OLIVE	15 GAL	-	LOW



BAUHINIA VARIEGATA 'PUPUREA' | PURPLE ORCHID TREE



CERCIDIUM X 'DESERT MUSEUM' | DESERT MUSEUM PALO VERDE



EUPHORBIA TURCALLI | STICKS ON FIRE



ASPARAGUS DENSIFLORUS 'MEYERS' | MEYERS ASPARAGUS



LEUCOSPERMUM 'SCARLET RIBBON' | NODDING PINCUSHION



LEYMUS ARENARIUS 'BLUE DUNE' | BLUE DUNE LYME GRASS



MUHLENBERGIA CAPILLARIS | PINK CLOUD MUHLY GRASS



OLEA EUROPAEA 'LITTLE OLLIE' | DWARF OLIVE

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Conceptual Landscape Plan

Affinity Project

Map not to scale

Source: Adept 2021

Exhibit 2-16e



Existing utility infrastructure is located on site and in the surrounding roadways. Exhibits 2-17a and 2-17b, Conceptual Utility Plans, show the locations of existing wet and dry utilities and the locations of proposed connections to utilities. As shown, all connections to water and sewer utilities and all dry utilities would occur on Arroyo Parkway.

There are 2 existing, PWP, 8-inch diameter domestic water lines in Arroyo Parkway; a 6-inch diameter domestic water line in Bellevue Drive; and a 12-inch diameter domestic water line in California Boulevard. There are two existing City of Pasadena 8-inch diameter sewer lines in Arroyo Parkway and one 8-inch diameter sewer line in California Boulevard. The northern sewer line in Arroyo Parkway turns west and connects to the line in California Boulevard; the southern line turns east.

As shown on Exhibit 2-17a, there is an existing City of Pasadena 10-foot diameter, reinforced concrete pipe (RCP) storm drain that parallels the site's eastern boundary in Arroyo Parkway. The 10-foot storm drain begins at an upstream network of storm drains beginning south of the I-210 and continues south to the City of South Pasadena. Here the pipe connects to a Los Angeles County Flood Control District (LACFCD) 10-foot diameter storm drain that outfalls into the Alhambra Wash Channel. There is an existing 45-inch diameter City-owned RCP storm drain in California Boulevard that connects to the 10-foot diameter storm drain in Arroyo Parkway. South of the 45-inch diameter storm drain is a 54-inch diameter LACFCD-owned RCP storm drain that also connects to the 10-foot diameter storm drain at Arroyo Parkway. With Project implementation, all on-site drainage would be collected in a proposed private storm drain system and treated before discharging to the soil below or Arroyo Parkway. Water quality treatment would be provided by either an infiltration system, a stormwater biofiltration system, or a combination of both. Storm water runoff would generally follow the same overall drainage pattern towards the south. Runoff would flow towards the proposed catch basins and trench drains throughout the outdoor areas. Storm water that falls onto building roofs would be collected with roof drains and routed either directly to the Project's subterranean levels for treatment or onto pavement surrounding the proposed uses.

Under the Project with Building A Residential/Commercial, the wet and dry utility infrastructure, including storm water management, would be the same as discussed for the Project.

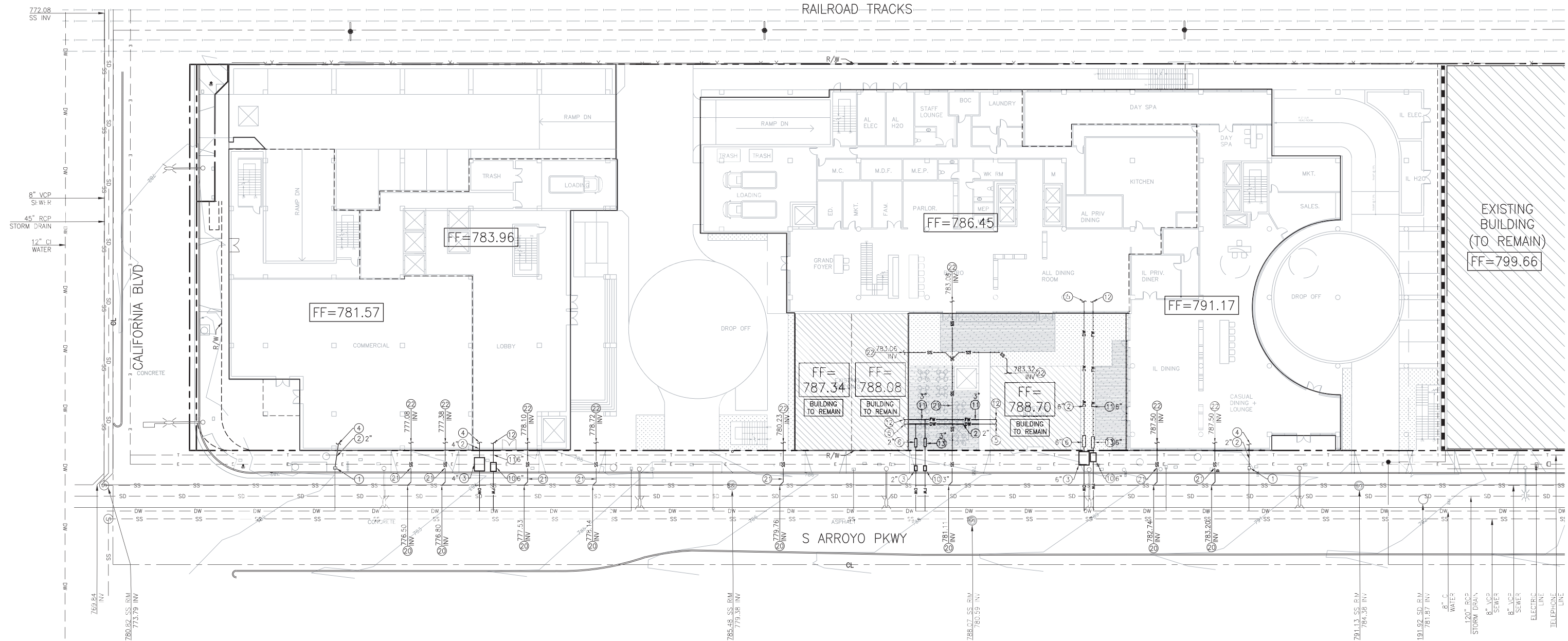
2.4.2 CONSTRUCTION SCENARIO

The Project, or Project with Building A Residential/Commercial, would be constructed beginning in 2023 over a period of approximately 34 months and would be completed in a single phase. Project construction would occur from Monday through Saturday, without activity on Sundays or holidays, between the hours defined in Section 9.36.070 (Construction Projects) of the PMC (7:00 AM to 7:00 PM Monday through Friday and 8:00 AM to 5:00 PM on Saturday).

Demolition of six of the existing buildings and other on-site improvements, such as paving, light fixtures, and signage, would generate an estimated 4,200 cubic yards (cy) of debris, generating an estimated 300 one-way haul truck trips, over the course of 2.5 months (68 workdays). This would result in an average of 4 and 5 one-way truck trips per workday. Site preparation would then generate an estimated 30 one-way truck trips over the course of 1 month (26 workdays). This would result in an average of just less than 1 truck trip per workday.

Implementation of the Project would involve the excavation and export of an estimated 184,013 cy of soil, generating an estimated 13,200 one-way truck trips, over the course of 4 months (103 workdays). The excavation is needed to accommodate the subterranean parking structure for the Project, which has maximum excavation depths between 54 and 58 feet below ground surface (bgs). This would equate to an average of 128 one-way trips per workday. These figures assume the use of 14-cy trucks.

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DOMESTIC WATER CONSTRUCTION NOTES

- ① CONTRACTOR TO COORDINATE WITH PWP TO REUSE EXISTING WATER 2" METER AND SERVICE.
- ② INSTALL DOMESTIC WATER PIPING AND FITTINGS, BEDDING PER CITY OF PASADENA STANDARD PLAN S-407 (SIZE PER PLAN).
- ③ CONTRACTOR TO COORDINATE WITH PWP TO INSTALL A DOMESTIC WATER SERVICE AND METER (SIZE PER PLAN).
- ④ CONNECT WATER LINE TO INTERNAL BASEMENT BACKFLOW DEVICE. SEE PLUMBING PLANS FOR CONTINUATION. REFER TO CITY OF PASADENA STANDARD PLAN G-1209.
- ⑤ REFER TO PLUMBING PLANS FOR CONTINUATION.
- ⑥ INSTALL BACKFLOW DEVICE PER CITY OF PASADENA STANDARD PLAN G-1209 (SIZE PER PLAN).

FIRE WATER CONSTRUCTION NOTES

- ⑩ CONTRACTOR TO COORDINATE WITH PWP TO INSTALL A FIRE WATER SERVICE AND METER (SIZE PER PLAN).
- ⑪ INSTALL FIRE WATER PIPING AND FITTINGS, BEDDING PER CITY OF PASADENA STANDARD PLAN S-407 (SIZE PER PLAN).
- ⑫ CONNECT FIRE WATER LINE TO FIRE SPRINKLER SYSTEM. REFER TO FIRE SPRINKLER PLANS AND PLUMBING PLANS.
- ⑬ CONNECT WATER LINE TO BACKFLOW DEVICE PER CITY OF PASADENA STANDARD PLAN G-1210 (SIZE PER PLAN).

SEWER CONSTRUCTION NOTES

- ⑳ CONTRACTOR TO COORDINATE WITH PWP TO INSTALL A 6" SEWER HOUSE CONNECTION WYE PER CITY OF PASADENA STANDARD PLAN S-301.
- ㉑ INSTALL 6" VCP SEWER HOUSE LATERAL. BEDDING PER CITY OF PASADENA STANDARD PLAN S-407.
- ㉒ REFER TO PLUMBING PLANS FOR CONTINUATION.

LEGEND

---	RIGHT-OF-WAY
---	CENTERLINE
---	EXISTING ELECTRICAL LINE
---	EXISTING DOMESTIC WATER LINE
---	EXISTING SEWER
---	EXISTING STORM DRAIN
---	EXISTING TELECOMMUNICATIONS LINE
CI	CAST IRON
CL	CENTERLINE
FF	FINISHED FLOOR
INV	INVERT
PWP	PASADENA WATER AND POWER
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
VCP	VITRIFIED CLAY PIPE

Conceptual Utility Plans

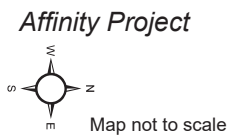


Exhibit 2-17a

Source: Adept 2021



AMP INTAKE		
MEDICAL OFFICE BUILDING	150,000 SF	6,000 AMPS
MOB COMMON AREA (INCLUSIVE OF ELEVATOR)	5,160 SF	1,000 AMPS
RETAIL/RESTAURANT	6737 SF	1,200 AMPS
ASSISTED LIVING BUILDING	180,000 SF	4,000 AMPS
AL COMMON AREA (INSIVE OF ELEVATORS)	5,000 SF	1,000 AMPS
SUBTERRANEAN PARKING	400,000 SF	2,000 AMP

ELECTRICAL KEY NOTES

- REFER TO ELECTRICAL PLANS FOR CONTINUATION.
- INSTALL ELECTRICAL EQUIPMENTS AND CONDUITS PER CITY OF PASADENA STANDARD PLAN REQUIREMENTS (SIZE PER PLAN).
- CONTRACTOR TO COORDINATE WITH PWP TO INSTALL ALL ELECTRICAL EQUIPMENT AND METERS (SIZE PER PLAN)

TELEPHONE KEY NOTES

- REFER TO THE TELEPHONE COMPANY PLANS FOR CONTINUATION.
- INSTALL CONDUITS AS PER THE TELEPHONE COMPANY REQUIREMENTS AND PASADENA STANDARD PLAN REQUIREMENTS (SIZE PER PLAN).
- CONTRACTOR TO COORDINATE WITH THE TELEPHONE COMPANY TO INSTALL ALL TELEPHONE CONDUITS AND EQUIPMENTS AS PER THEIR REQUIREMENT.

CABLE KEY NOTES

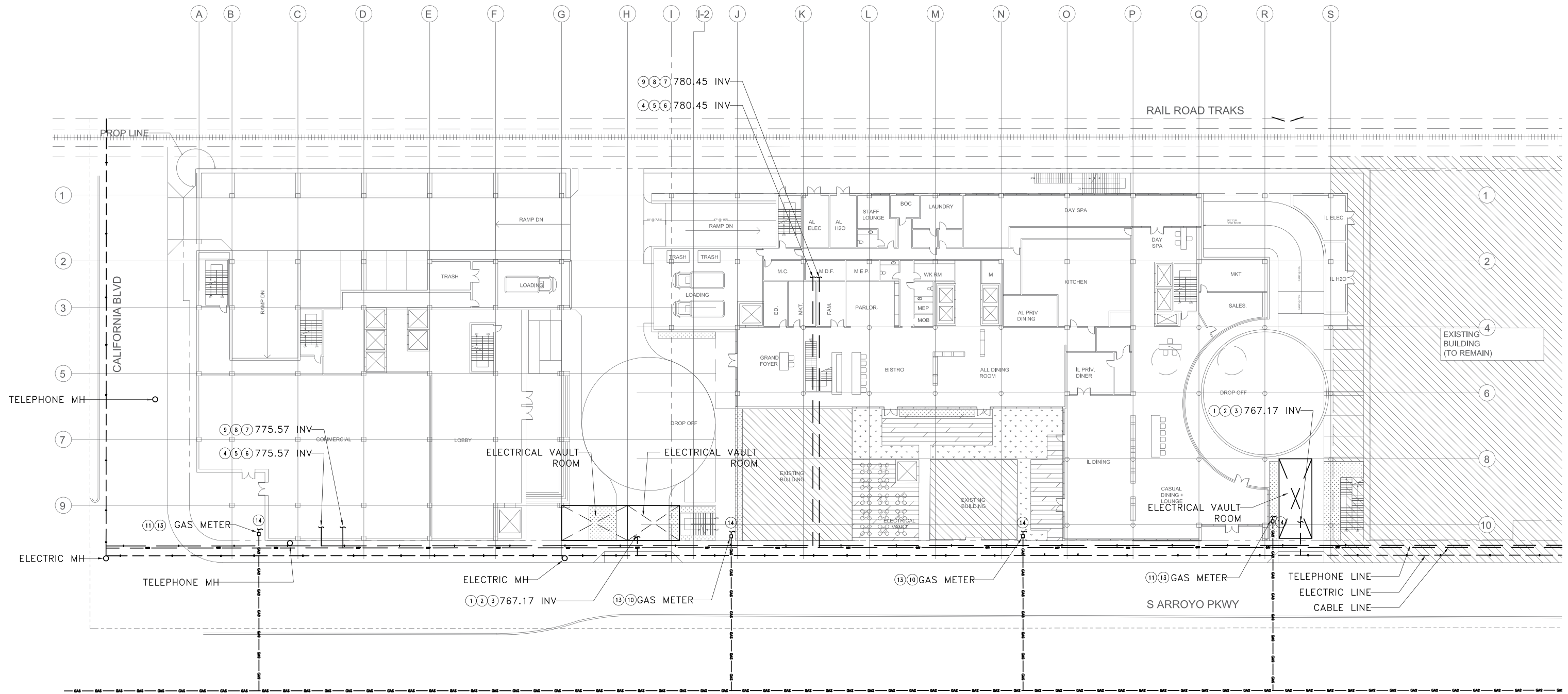
- REFER TO CABLE COMPANY PLANS FOR CONTINUATION.
- INSTALL EQUIPMENTS AND CONDUITS AS PER THE CABLE COMPANY REQUIREMENTS.
- CONTRACTOR TO COORDINATE WITH CABLE COMPANY PRIOR TO INSTALLING ANY EQUIPMENTS (SIZE PER PLAN).

GAS KEY NOTES

- CONTRACTOR TO COORDINATE WITH SOCALGAS COMPANY TO REUSE EXISTING GAS METER AND SERVICE TO EXISTING BUILDING.
- CONTRACTOR TO COORDINATE WITH SOCALGAS COMPANY TO INSTALL A MPG GAS SERVICE AND METER(SIZE PER PLAN) .
- CONTRACTOR TO COORDINATE WITH SOCALGAS COMPANY TO INSTALL A LOW PRESSURE GAS SERVICE AND METER(SIZE PER PLAN) .
- INSTALL GAS PIPING AND FITTING,BEDDING PER SOCALGAS COMPANY STANDARD PLAN.
- REFER TO PLUMBING GAS PLANS FOR CONTINUATION.

LEGENDS

- * MH - MAN HOLE
- * INV - INCHES VERTICAL
- E- - ELECTRICAL
- T- - TELEPHONE
- C- - CABLE
- G- - GAS



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Source: Adept 2021

Conceptual Utility Plans

Affinity Project



Map not to scale

Exhibit 2-17b

P S O M A S

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Excavation associated with the Project with Building A Residential/Commercial would generate 36,802 cy less soil than that required for the Project, commensurate with the 1 less subterranean level. Therefore, this scenario would involve the excavation and export of an estimated 147,211 cy of soil, generating an estimated 10,515 one-way truck trips, over the course of 4 months (103 workdays). This would equate to an average of 102 one-way trips per workday. All other aspects of construction would be essentially the same for both the Project and Project with Building A Residential/Commercial scenarios.

Building construction, including architectural coatings, would generate a waste stream requiring an estimated 795 one-way truck trips over the course of 26.5 months (691 workdays). This would result in an average of just over 1 truck trip per workday. Chapter 8.62 (Waste Management Plan for Certain Construction and Demolition Projects within the City of Pasadena) et. seq. of the PMC is the City's construction and demolition waste management ordinance (C&D ordinance), which requires at least 75 percent of the construction waste stream to be diverted from landfill disposal. Construction and demolition debris, after diversion, would be disposed at Scholl Canyon Landfill, located approximately 2.5 miles northwest of the site, at 3001 Scholl Canyon Road in Glendale. Construction and demolition debris being diverted from landfill disposal may be directed to many different facilities in the region that reuse or recycle this type of material.

2.4.3 PROJECT OPERATION

The Project is anticipated to be opened to the public in 2026. The medical office building would operate with hours typical of the land use—generally between 8:00 AM and 6:00 PM on weekdays and between 9:00 AM and 1:00 PM on Saturdays. However, operational hours of individual tenants of the medical office building would vary and may be longer or shorter than the typical hours. The non-commercial portion of the medical office building is expected to result in approximately 523 visitors per day and 646 employees. The commercial uses on the ground floor of the medical office building are expected to result in approximately 43 visitors per day and 9 employees. In total, Building A would generate an estimated 655 employees and 566 visitors per day. The assisted living building would also operate with hours typical of the land use. Assisted living facilities are generally operational 24 hours per day with visitation hours anticipated to be daily (Monday through Sunday) between 8:00 AM and 6:00 PM. The assisted living building is expected to result in approximately 20 to 45 visitors per day, approximately 66 employees, up to 113 assisted living residents being cared for, and up to 109 independent living residents (if the maximum of 95 independent living units are constructed). In total, Building B would generate an estimated 66 employees, 222 residents, and up to 45 visitors per day.

The two historic buildings to be retained, total 5,882 sf, are assumed to operate as fast-casual restaurants as part of the Project or Project with Building A Residential/Commercial for purposes of this Draft EIR. These two buildings are expected to result in approximately 16 employees and 83 visitors per day. Therefore, the Project as a whole would generate an estimated 222 residents, 737 employees, and up to 694 visitors per day. For purposes of this Draft EIR, all employees are assumed to be full-time as a conservative approach.

If the Project with Building A Residential/Commercial is constructed, Building A would generate approximately 493 residents associated with up to 197 units¹. Under this development scenario, Building A would include a leasing/sales management office that would employ a small number of individuals—assumed to be 4 persons for purposes of this Draft EIR—and potentially employ maintenance personnel as well. As with the Project, the commercial uses on the ground floor of Building A are expected to result in approximately 43 visitors per day and 9 employees. In total, Building A with Residential Commercial would generate an estimated 493 residential and 20

¹ Based on a rate of 2.5 persons per household derived from the Southern California Association of Governments (SCAG) 2019 Profile for the City of Pasadena (SCAG 2019).

employees. The number of visitors to residential uses is not estimated as it is for business uses (e.g., medical, office, assisted living). Therefore, the Project with Building A Residential/Commercial as a whole would generate an estimated 715 residents, 95 employees, and up to 128 visitors per day.

2.5 PLANNED DEVELOPMENT PLAN AND EXCHANGE PROGRAM

Implementation of the Project or Project with Building A Residential/Commercial could occur subsequent to the adoption of the PD zone and accompanying PD Plan. According to the City of Pasadena Zoning Code, the specific purposes of the PD zoning district are to:

- Establish a procedure for the development of large parcels of land in order to reduce or eliminate the rigidity, delays, and inequities that otherwise would result from application of land use regulations and administrative procedures designed primarily for small parcels;
- Ensure orderly and thorough planning and review procedures that will result in quality urban design.
- Encourage variety and avoid monotony in large developments by allowing greater freedom in selecting the means to provide access, light, open space, and amenity;
- Allow certain types of development consistent with the general plan that can be acceptable at a specific location only under standards significantly more restrictive than those of a base district in which the use is permitted;
- Provide a mechanism whereby the city may authorize desirable developments in conformity with the general plan without inviting speculative rezoning applications that if granted, often could deprive subsequent owners of development opportunities that do not necessarily result in construction of the proposed facilities;
- Encourage allocation and improvement of common open space in residential areas, and provide for maintenance of the open space at the expense of those who will directly benefit from it;
- Encourage the preservation of serviceable existing structures of historic value or artistic merit by providing the opportunity to use them imaginatively for purposes other than that for which they were originally intended; and
- Encourage the assembly of properties that might otherwise be developed in unrelated increments to the detriment of surrounding neighborhoods.

Adoption of a PD zoning district would reclassify the Project site from CD-6 to PD-39, while simultaneously establishing applicable land use regulations and development standards that are specific to the newly established zoning district. The regulations and standards that dictate allowed and conditionally allowed land uses and development would be prescribed in the accompanying PD Plan. This ensures the Project or Project with Building A Residential/Commercial is developed as intended. PD Plans are developed in consideration of existing zoning requirements that are applicable to a project site while also providing flexibility in site usage and building design.

The City's process allows a property owner to initiate an amendment to reclassify a property two acres or larger to a PD zoning district. A proposed PD zoning district and the allowed or conditionally allowed land uses are required to be consistent with the City's General Plan. However, development cannot exceed maximums for floor area ratio or density on the Land Use Diagram unless approved by the City Council (but only as high as 3.0 FAR and 87 du/acre).

The review process of a new PD Application requires input from the City's Design Commission, Planning Commission, and City Council. The review process for a proposed Planned Development is outlined in Sections 17.26.020(C)(3)(d) (Commission and Council Action), 17.61.030(l)(5)(b) (Design Conditions), and 17.74 (Amendments) of the PMC. The role of the Design Commission is limited to recommendations to the Planning Commission and City Council on aesthetic and urban design issues related to architecture, landscaping, site plan, and related aesthetic issues, as well as historic preservation. Additionally, comments on the aesthetic/cultural resources of a draft environmental study are appropriate. Therefore, review and advisement by the Design Commission regarding the proposed PD zone and PD Plan would occur first at a public meeting.

A subsequent review of a proposed PD zone and PD Plan would occur at a public hearing by the Planning Commission. The Planning Commission's role is to make a written recommendation to the City Council to approve, approve with modifications, or disapprove the proposed reclassification and PD Plan. The City Council's role is to hold a public hearing to consider the recommendation of the Planning Commission and to hear evidence regarding the proposal. Upon receipt of the Planning Commission's recommendation, the City Council would move to approve, approve in modified form, or disapprove the proposed PD zoning district and PD Plan. Prior to any approval, the City Council is required to certify the Final EIR. Planned Developments and the accompanying PD Plan are made a part of the Zoning Code when approved to ensure implementation occurs as approved.

The basic design of a project, including compatibility with surroundings, massing, proportion, siting, solid-to-void relationships, and compliance with applicable design guidelines is evaluated through the City's Design Review process and is a role for the City's Design Commission. This phase of review generally occurs after approval of the PD application, if received. An approved PD zoning district and accompanying PD Plan cannot be later revised without requiring a formal application from the applicant, noticed public hearings before the Planning Commission and City Council, and the appropriate environmental review pursuant to CEQA.

2.6 APPROACH TO CUMULATIVE IMPACT ANALYSIS

Discussions of the cumulative impacts of the Project is provided in Sections 3.1 through 3.11, relative to each CEQA topical issue evaluated herein. The following is an overview and introduction to the cumulative analysis per the State CEQA Guidelines. This avoids the undue repetition of CEQA requirements relative to cumulative analysis within individual sections.

Section 15355 of the State CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts". Section 15355 also specifies:

- a) The individual effects may be changes resulting from a single project or a number of separate projects.
- b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Pursuant to Section 15130(b) of the State CEQA Guidelines:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail

as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

Section 15130(b)(1) of the State CEQA Guidelines describes two allowable methods to determine the scope of projects considered in the cumulative impact analysis, as follows:

- (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.

The cumulative impact analysis contained in this EIR uses method B, the projections method. The buildout of the City's General Plan will be used as the basis of growth projections to assess cumulative impacts. The Land Use Element of the *City of Pasadena General Plan* designates the intensity of development and the mix of allowed uses within each specific plan area. Specifically, Policy 1.3 states: "Regulate building intensity and population density consistently with the designations established by the Land Use Diagram. Within these, cumulative new development within the specific plan areas shall not exceed the number of housing units and commercial square feet specified in the following table". The referenced table is presented in Table 2-4, City of Pasadena General Plan Development Caps, on the following page.

These development caps are applicable as of the date of adoption of the Land Use Element, which was August 18, 2015. The City's development caps do not apply to affordable housing units, except for the Fair Oaks/Orange Grove specific plan area. Also, a shift of development cap from one specific plan to a different specific plan area is not permitted. It is noted that affordable housing units are not counted towards residential caps in any Specific Plan, except for the Fair Oaks/Orange Grove Specific Plan; and parking structures and structures tied to educational institutions also do not count towards non-residential development capacity limits.

**TABLE 2-4
CITY OF PASADENA GENERAL PLAN DEVELOPMENT CAPS**

Specific Plan Area	Residential Units	Commercial Square Feet
Central District	4,272	2,112,000
South Fair Oaks	802	988,000
East Pasadena	750	1,095,000
Lamanda Park	100	630,000
East Colorado	300	300,000
North Lake	250	250,000
Fair Oaks / Orange Grove	325	300,000
Lincoln Avenue	180	300,000
Totals	6,979	5,975,000

Source: Pasadena, City of. 2015b (August 18, adopted). *Land Use Element of Pasadena General Plan*. Pasadena, City of. [Land-Use-Element-2016-01-25.pdf \(cityofpasadena.net\)](#).

Table 2-5 summarizes the remaining development capacity throughout the City as of December 6, 2021 (the most recent available data). The remaining development capacity summarized above reflects all projects, including those currently in progress without entitlements. It is expected that some proportion of these projects will not come to fruition. However, to provide a conservative analysis, they have been reflected in the projections for purposes of cumulative impact analysis in this EIR. The cumulative impact analysis assumes buildout of all remaining development capacity in the City.

**TABLE 2-5
CITY OF PASADENA REMAINING DEVELOPMENT CAPACITY**

Specific Plan Area	Residential Units	Commercial Square Feet
Central District	1,018	778,357 ^a
South Fair Oaks	785	621,193
East Pasadena	57	1,284,029
Lamanda Park	101	562,867
East Colorado	199	6,534
North Lake	250	250,245
Fair Oaks / Orange Grove	(43)	253,721
Lincoln Avenue	116	363,422
Totals	2,483	3,342,011

^a Not including 105,020 net square feet of commercial land use associated with the Project in Building A (as proposed) (i.e., 154,000 sf – 48,980 sf).

Sources:
Pasadena, City of. 2021a (December 6, last updated). *Development Cap Tracking Worksheet-Summary*. Pasadena, City of. [GP DEV CAP WORKSHEET Nov2021.xlsx \(cityofpasadena.net\)](#).
Pasadena, City of. 2021b (November 30, last updated). *Development Cap Tracking Worksheet-Details*. Pasadena, City of. [GP DEV CAP WORKSHEET Nov2021.xlsx \(cityofpasadena.net\)](#).

2.7 **INTENDED USES OF THE EIR**

2.7.1 **CITY OF PASADENA**

The City of Pasadena is expected to use the information contained in the EIR for consideration of approvals related to and involved in Project implementation. Actions to be considered by the City, after implementation of the CEQA process, include, but not be limited to:

- Approval of the Planned Development (PD) Zoning District and PD Plan (this includes approval of the Affinity Project, zoning map amendment to rezone the property from CD-6 to PD-39, and variance for historic resources for building height);
- Certification of the Affinity Project Environmental Impact Report;
- Public Street Tree Removal Approval;
- Design Review;
- Vesting Tentative Tract Map or Tentative Tract Map Approval (only if residential units for sale); and
- Other discretionary and ministerial permits and approvals that may be deemed necessary, including but not limited to: master sign plan, temporary street closure permits, encroachment permits, grading permits, excavation permits, foundation permits, and building permits (including lot tie agreement).

2.7.2 **RESPONSIBLE AND TRUSTEE AGENCIES**

State law requires that all EIRs be reviewed by trustee and responsible agencies. A “Trustee Agency” is defined in Section 15386 of the State CEQA Guidelines as “a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California”. Per Section 15381 of the State CEQA Guidelines, “the term ‘Responsible Agency’ includes all public agencies other than the Lead Agency which have discretionary approval power over the project”.

The EIR also provides environmental information to responsible agencies, trustee agencies, and other public agencies that may be required to grant approvals and permits or coordinate with the City as part of Project implementation. These agencies include, but are not limited to, those listed in Table 2-6, Other Agency Approvals and Requirements.

**TABLE 2-6
OTHER AGENCY APPROVALS AND REQUIREMENTS**

Agency	Approval Required
Los Angeles County Metropolitan Transportation Authority (Metro)	Construction within 100 feet of Metro light rail
Los Angeles Regional Water Quality Control Board	Construction General Permit
South Coast Air Quality Management District	Permit for Operation of Diesel Backup Generator

2.8 REFERENCES

Pasadena, City of. 2021a (December 6, last updated). *Development Cap Tracking Worksheet-Summary*. Pasadena, City of. GP DEV CAP WORKSHEET Nov2021.xlsx (cityofpasadena.net).<https://www.cityofpasadena.net/wp-content/uploads/sites/30/Land-Use-Element-2016-01-25.pdf?v=1626398951978>

Pasadena, City of. 2021b (November 30, last updated). *Development Cap Tracking Worksheet-Details*. Pasadena, City of. GP DEV CAP WORKSHEET Nov2021.xlsx (cityofpasadena.net).

———. 2015 (August). *Pasadena General Plan*. Pasadena, CA: the City. General Plan - Planning & Community Development Department (cityofpasadena.net).

———. 2004 (November 8, adopted). *Central District Specific Plan*. Pasadena, CA: the City. Central District - Planning & Community Development Department (cityofpasadena.net).

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SECTION 3.0 ENVIRONMENTAL ANALYSIS

In accordance with Sections 15125 and 15126(a) to (c) of the California Environmental Quality Act (CEQA) Guidelines, this section of the Draft EIR analyzes those environmental topics where the Project could result in “potentially significant impacts”, as identified in the IS/NOP included in Appendix A-1 and based on comments received during the scoping period. The City identified the following topics as requiring detailed EIR analysis:

- Air Quality (Section 3.1),
- Cultural and Paleontological Resources (Section 3.2),
- Energy (Section 3.3),
- Greenhouse Gas Emissions (Section 3.4),
- Hazards and Hazardous Materials (Section 3.5),
- Land Use and Planning (Section 3.6),
- Noise (Section 3.7),
- Public Services and Recreation (Section 3.8),
- Transportation (Section 3.9),
- Tribal Cultural Resources (Section 3.10), and
- Utilities and Service Systems (Section 3.11).

Each topical section includes the information presented in the format described below.

As discussed in Section 1.0, Introduction, the City determined there would be no impacts or less than significant impacts to the following environmental topics:

- | | |
|--|--------------------------------|
| • Aesthetics, | • Hydrology and Water Quality, |
| • Agricultural and Forestry Resources, | • Mineral Resources, |
| • Biological Resources, | • Population and Housing, and |
| • Geology and Soils, | • Wildfire. |

Therefore, these topics do not require, and this Draft EIR will not set forth, any further analysis of these topics.

Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant, including after incorporation of applicable regulations that are necessary independent of the CEQA process, Project-specific mitigation measures have been identified, consistent with Section 15126.4 of the State CEQA Guidelines. Any mitigation measure, and timing thereof, is subject to the approval of the City. Section 15126.4(a) of the State CEQA Guidelines requires lead agencies to consider feasible mitigation measures to avoid or substantially reduce a project’s significant environmental impacts. If determined necessary in the future, the City may substitute, at its discretion, any mitigation measure (and timing thereof) that has (1) the same or superior result as the original mitigation measure and (2) the same or superior effect on the environment (Section 21080(f) of CEQA).

Environmental Analysis Format

To facilitate the analysis of each topic presented in Section 3.0, a standard format was developed. This format is presented below, with a brief discussion of the information included within each heading.

Existing Conditions

This section describes the existing environmental conditions related to each topic analyzed. In accordance with Section 15125 of the State CEQA Guidelines, the existing local and regional setting is discussed as they existed when the IS/NOP was circulated from August 5, 2021, through September 3, 2021, unless otherwise noted. This section provides the baseline conditions with which environmental changes associated with the Project and Project with Building A Residential/Commercial would be compared and analyzed.

Relevant Programs and Regulations

This section includes a summary of the existing federal, State, regional, County, and/or local laws, regulations, and ordinances that directly relate to the environmental topic being analyzed. These are summarized to provide background information and to establish the regulatory setting under which the construction and operation of the Project or Project with Building A Residential/Commercial would occur.

Thresholds of Significance

Section 15126.2 of the State CEQA Guidelines requires an EIR to “identify and focus on the significant environmental effects of the proposed project”. “Effects” and “impacts” mean the same under CEQA and are used interchangeably in this EIR. A “significant effect” or “significant impact” on the environment is “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project” (Section 15382 of the State CEQA Guidelines).

In determining whether an impact is “significant”, Section 15064.7 of the State CEQA Guidelines encourages each public agency to develop and publish thresholds of significance to use in determining the significance of an environmental impact. These thresholds may consist of identifiable quantitative, qualitative, or performance-level criteria used to determine non-compliance or compliance. Non-compliance means the effect would be significant, and compliance with the thresholds means the effect normally would be less than significant.

Like most municipalities, the City of Pasadena has not adopted thresholds of significance for every resource area but has adopted local thresholds for areas such as traffic. Nonetheless, a majority of the significance criteria used in the analysis in Section 3.0 of this EIR are derived from Appendix G of the State CEQA Guidelines. In addition, City policies and standards (such as the City’s noise ordinance), as well as thresholds adopted by other public agencies with jurisdiction over select issues, are used as thresholds of significance, where applicable. For example, the South Coast Air Quality Management District publishes numerical thresholds for criteria pollutant emissions. Also, accepted technical and scientific data are used in some instances to determine if an impact would be considered significant. These thresholds are identified under each environmental topic and have been used in analyzing the potential impacts of the Project and Project with Building A Residential/Commercial.

Methodology

This section describes the methods that were used in the process of analyzing impacts related to the implementation of the Project and Project with Building A Residential/Commercial in relation to the thresholds of significance for that environmental topic.

Environmental Impacts

The analysis of environmental impacts presented in this Draft EIR identifies direct and indirect, as well as short-term and long-term, environmental impacts of the Project and the comparative impacts of the Project with Building A Residential/Commercial. The thresholds of significance (discussed above) provide the basis for distinguishing between impacts that are determined to be significant (i.e., impact exceeds the threshold of significance) and those that are considered less than significant. The analysis is structured to address each threshold, while considering any residual impact after compliance with any applicable regulations pertinent to that topic. If there would be a significant environmental impact after regulatory compliance, feasible mitigation measure(s) are developed to reduce or avoid the identified impact.

Where the impact analysis demonstrates that a potential environmental effect is too speculative or subjective for evaluation, or that the effect is beneficial, that conclusion is noted. Where the impact analysis demonstrates that a potential environmental effect could have a substantial or potentially substantial and adverse impact on existing physical conditions within the City, that conclusion is noted and followed by a discussion of how the proposed mitigation would address the potential impact.

Cumulative Impacts

While the extent of environmental changes that would occur with individual projects that are proposed, planned, or under construction in the City or region may not be significant, the sum of the impacts of these cumulative projects and the Project or Project with Building A Residential/Commercial may be cumulatively considerable, as defined in Section 15065(c) of the State CEQA Guidelines. Section 2.6, Approach to Cumulative Impact Analysis, of this EIR contains a discussion of the overall methodology to determine the scope of projects and/or regional growth considered in the cumulative impact analysis. A discussion of the anticipated environmental changes resulting from the cumulative projects and the proposed development on a cumulative level, are addressed in each topical analysis presented in Section 3.0 of this Draft EIR, which contains a more detailed discussion of the cumulative impact analysis methodology for each environmental topic.

Mitigation Measures

The mitigation measures (MMs) for each topic have been developed, when necessary, to reduce or avoid significant adverse environmental impacts after incorporation of relevant regulations.

Level of Significance After Mitigation

This section identifies the level of significance of the identified impacts after implementation of the required mitigation measures, where applicable. Significant and unavoidable impacts are those adverse effects that either cannot be mitigated or that remain significant even after mitigation.

References

Documents and other sources that have been used in the preparation of each topical analysis are identified in this section.

Summary of Analysis

This section presents an overview of the topical analysis for the Project and Project with Building A Residential/Commercial, including identification of any MMs and level of significance after mitigation.

3.1 AIR QUALITY

3.1.1 EXISTING CONDITIONS

Climate and Meteorology

The Project site is located in the Los Angeles County portion of the South Coast Air Basin (SoCAB). The SoCAB is a 6,600-square-mile area bound by the Pacific Ocean to the west, the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and the San Diego County line to the south. The SoCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area of Riverside County.

The SoCAB's terrain and geographical location (i.e., a coastal plain with connecting broad valleys and low hills) determine its distinctive semi-arid climate, which is characterized by moderate temperatures, oceanic influences, and precipitation during winter (November through April).

According to the 2016 South Coast Air Quality Management District's (SCAQMD's) Air Quality Management Plan (AQMP), the SoCAB's air pollution problems are a consequence of the combination of emissions from the nation's second largest urban area, meteorological conditions adverse to the dispersion of those emissions, and mountainous terrain surrounding the Basin that traps pollutants as they are pushed inland with the sea breeze. The average wind speed for Los Angeles is the lowest of the nation's 10 largest urban areas. In addition, the summertime daily maximum mixing heights¹ in Southern California are the lowest, on average, due to strong temperature inversions in the lower atmosphere that effectively trap pollutants near the surface. Southern California also has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone (O₃) and a significant portion of fine particulate mass, equal to or smaller than 2.5 microns in size (PM_{2.5}).

With very light average wind speeds, the basin atmosphere has a limited capability to disperse air contaminants horizontally. The dominant daily wind pattern is a daytime sea breeze (onshore breeze) and a nighttime land breeze (offshore breeze), broken only occasionally by winter storms and infrequent strong Santa Ana winds from the Great Basin, Mojave, and deserts to the north.

The vertical dispersion of air pollutants in the SoCAB is hampered by the presence of a temperature inversion in the layers of the atmosphere near the surface of the Earth. In a normal situation, as temperatures decrease with altitude, air continues to rise as it remains warmer than the surrounding air. With an inversion layer, air cannot continue to expand upwards, as it is trapped by the warmer air above.

Criteria Air Pollutants

Air quality is defined by ambient air concentrations of seven criteria air pollutants, which are a group of common air pollutants identified by the U.S. Environmental Protection Agency (USEPA) to be of concern with respect to the health and welfare of the general public. Federal and State governments regulate criteria pollutants by using ambient standards based on criteria regarding the health and/or environmental effects of each pollutant. These pollutants include nitrogen dioxide (NO₂); ozone (O₃); particulate matter, including both particles equal to or smaller than 10 microns in size (PM₁₀) and particles equal to or smaller than 2.5 microns in size (PM_{2.5}); carbon monoxide (CO); sulfur dioxide (SO₂); and lead. Particulate matter size refers to the aerodynamic

¹ The maximum mixing height is an index of how well pollutants can be dispersed vertically in the atmosphere.

diameter of the particle. A description of each criteria pollutant, including source types and health effects, is provided below.

Nitrogen Dioxide

Nitrogen gas, normally relatively inert (i.e., nonreactive), comprises about 80 percent of the air. At high temperatures (e.g., in combustion processes) and under certain other conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitrogen oxides (NO_x). Nitric oxide (NO), NO₂, and nitrous oxide (N₂O) are important constituents of NO_x. NO is converted to NO₂ in the atmosphere. Motor vehicle emissions are the main source of NO_x in urban areas.

NO₂ is a red-brown pungent gas and is toxic to various animals and to humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membranes, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations of NO₂ can suffer lung irritation and, potentially, lung damage. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes, and with hospital admissions for respiratory conditions.

While the National Ambient Air Quality Standards (NAAQS) only address NO₂, NO and NO₂ are both precursors in the formation of O₃ and PM_{2.5}, as discussed below. Because of this and the fact that NO emissions largely convert to NO₂, NO_x emissions are typically examined when assessing potential air quality impacts.

Ozone

Ozone is a secondary pollutant, meaning that it is not directly emitted. It is a gas that is formed when volatile organic compounds (VOCs) (also referred to as reactive organic gases) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of VOC emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x also form as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O₃ to form; as a result, ozone is known as a summertime air pollutant. Ground-level O₃ is not to be confused with atmospheric O₃ or the “ozone layer”, which occurs very high in the atmosphere and shields the planet from some ultraviolet rays. Ground-level O₃ is the primary constituent of smog. Because O₃ formation occurs over extended periods of time, both O₃ and its precursors are transported by wind, and high O₃ concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when ozone levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level ozone exposure to a variety of problems, including the following:

- lung irritation that can cause inflammation much like a sunburn;
- wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- permanent lung damage to those with repeated exposure to ozone pollution; and
- aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis.

Particulate Matter

Particulate matter includes both aerosols and solid particles of a wide range of size and composition. Of particular concern are PM₁₀ and PM_{2.5}. Particulate matter tends to occur primarily in the form of fugitive dust. This dust appears to be generated by both local sources and by region-wide dust during moderate to high wind episodes. These regional episodes tend to be multi-district and sometimes interstate in scope. The principal sources of dust in urban areas are from grading, construction, disturbed areas of soil, and dust entrained by vehicles on roadways.

PM₁₀ is generally emitted directly as a result of mechanical processes that crush or grind larger particles or from the re-suspension of dusts, most typically through construction activities and vehicular travels. PM₁₀ generally settles out of the atmosphere rapidly and is not readily transported over large distances.

PM_{2.5} is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants including NO_x, sulfur oxides (SO_x), and VOCs. PM_{2.5} can remain suspended in the atmosphere for days and/or weeks and can be transported long distances, as many as several hundred miles.

The principal health effects of airborne particulate matter are on the respiratory system. Short-term exposure, lasting several days or weeks, to high PM_{2.5} and PM₁₀ levels is associated with premature mortality and increased hospital admissions and emergency room visits; increased respiratory symptoms are also associated with short-term exposure to high PM₁₀ levels. Long-term exposure, lasting years to decades, to high PM_{2.5} levels is associated with premature mortality and development of chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

Carbon Monoxide

Carbon monoxide is a colorless and odorless gas which, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches; aggravate cardiovascular disease; and impair central nervous system functions.

CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations are typically found near crowded intersections; along heavily used roadways carrying slow-moving traffic; and at or near ground level. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (i.e., up to 600 feet or 185 meters) of heavily traveled roadways.

Sulfur Dioxide

Sulfur oxides (SO_x) constitute a class of compounds of which SO₂ and sulfur trioxide (SO₃) are of greatest importance. Ninety-five percent of pollution-related SO_x emissions are in the form of SO₂. SO_x emissions are typically examined when assessing potential air quality impacts of SO₂. The primary contributor of SO_x emissions is fossil fuel combustion for generating electric power. Industrial processes, such as nonferrous metal smelting, also contribute to SO_x emissions. SO_x

is also formed during combustion of motor fuels; however, most of the sulfur has been removed from fuels, greatly reducing SO_x emissions from vehicles.

SO₂ combines easily with water vapor, forming aerosols of sulfurous acid (H₂SO₃), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H₂SO₄). Peak levels of SO₂ in the air can cause temporary breathing difficulty for people with asthma who are active outdoors. Longer-term exposures, lasting years to decades, to high levels of SO₂ gas and particles cause respiratory illness and aggravate existing heart disease. SO₂ reacts with other chemicals in the air to form tiny sulfate particles which are measured as PM_{2.5}.

Lead

Lead is a stable compound, which persists and accumulates both in the environment and in animals. In humans, it affects the body's blood-forming (or hematopoietic), nervous, and renal systems. In addition, lead has been shown to affect the normal functions of the reproductive, endocrine, hepatic, cardiovascular, immunological and gastrointestinal systems, although there is significant individual variability in response to lead exposure. In general, an analysis of lead is limited to projects that emit significant quantities of the pollutant (i.e., lead smelters) and are not applied to residential projects.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs may be emitted from a variety of common sources, including motor vehicles, gasoline stations, dry cleaners, industrial operations, painting operations, and research and teaching facilities. The USEPA uses the term "hazardous air pollutants" for TACs.

TACs are different than the criteria pollutants previously discussed in that ambient air quality standards have not been established for them. TACs occurring at extremely low concentrations may still cause health effects, and it is typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic (*i.e.*, cancer) risk, chronic (*i.e.*, of long duration) and acute (*i.e.*, severe but of short duration) adverse effects on human health. Diesel particulate matter (DPM) is a TAC and is responsible for the majority of California's known cancer risk from outdoor air pollutants.

Existing Regional Air Quality

The nearest air quality monitoring to the Project site is the Pasadena-South Wilson Avenue monitoring station located approximately 1.2 miles southeast of the Project site. Pollutants measured at this monitoring station include O₃, PM_{2.5}, and NO₂. Monitoring data from the years 2017-2019 are shown in Table 3.1-1, Air Quality Monitoring Data from the Pasadena-South Wilson Avenue Monitoring Station. Federal and State air quality standards are presented with the number of times those each of those standards were exceeded.

**TABLE 3.1-1
AIR QUALITY MONITORING DATA FROM
THE PASADENA-SOUTH WILSON AVENUE MONITORING STATION**

Pollutant	California Standard	National Standard	Year	Max. Level ^a	State Standard Days Exceeded ^b	National Standard Days Exceeded ^{b, c}
O ₃ (1 hour)	0.09 ppm	None	2018	0.112	8	NA
			2019	0.120	11	NA
			2020	0.163	41	NA
O ₃ (8 hour)	0.070 ppm	0.070 ppm	2018	0.091	20	19
			2019	0.098	29	24
			2020	0.116	61	60
NO ₂ (1 Hour)	0.18 ppm	0.100 ppm	2018	0.068	0	0
			2019	0.059	0	0
			2020	0.061	0	0
NO ₂ (AAM)	0.030 ppb	0.053 ppb	2018	0.014	No	No
			2019	0.013	No	No
			2020	0.013	No	No
PM _{2.5} (24 Hour)	None	35 µg/m ³	2018	32.5	N/A	0/0
			2019	41.8	N/A	1/3.1
			2020	67.7	N/A	2/6.1
PM _{2.5} (AAM)	12 µg/m ³	15 µg/m ³	2018	10.3	No	No
			2019	8.7	No	No
			2020	11.9	No	No

O₃: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; AAM: annual arithmetic mean; NO₂: nitrogen dioxide.
 “-” indicates that the data are not reported or there is insufficient data available to determine the value. N/A indicates that there is no applicable standard.
 State and national data may differ because of differing methods for selecting hours for averaging.

^a California maximum levels were used.
^b For annual averaging times, a “Yes” or “No” response is given if the annual average concentration exceeded the applicable standard.
^c PM is measured once every 6 days. Where 2 values are shown for PM_{2.5}, the first is for the measured value, and the second is the estimated number of days.

Source: CARB 2021

When a region has air quality that fails to meet the standards, the USEPA and the California Air Resources Board (CARB) designate the region as “nonattainment” and the regional air quality agency must develop plans to attain the standards. These attainment designations are shown in Table 3.1-2, Attainment Status of Criteria Pollutants in the South Coast Air Basin. As identified in Table 3.1-2, all of Los Angeles County is designated as a nonattainment area for O₃, PM₁₀, and PM_{2.5}; portions of Los Angeles County, not including the Project site are designated nonattainment for NO₂ and lead.

**TABLE 3.1-2
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN**

Pollutant	State	Federal
O ₃ (1 hour)	Nonattainment	No standards
O ₃ (8 hour)	Nonattainment	Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO ₂	Attainment/Nonattainment ^b	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Nonattainment/Attainment ^a
All others	Attainment/Unclassified ^c	No standards

O₃: ozone; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; SoCAB: South Coast Air Basin.

^a Los Angeles County is classified nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards.

^b The near-road portion of CA-60 in San Bernardino, Riverside, and Los Angeles Counties is classified as nonattainment for NO₂; the remainder of the SoCAB is in attainment of State standards.

^c "Unclassified" designation indicates that the air quality data for the area are incomplete and do not support a designation of attainment or nonattainment.

Source: CARB 2021b, USEPA 2021a

Existing Project Site Emissions

Pollutants are emitted from current operations at the Project site. Existing emissions were calculated for the businesses that would be removed from the site (i.e., 491/495, 499/503, 541, and 577 South Arroyo Parkway) and replaced by new uses associated with the Project or Project with Building A Residential/Commercial. In other words, the existing emissions in Table 3.1-3 do not include emissions from the buildings to be retained with implementation of the Project (i.e., 465, 501, and 523 South Arroyo Parkway). Existing vehicle trip data, an estimated 2,454 daily trips, are derived from the Transportation Impact Analysis – Outside of CEQA Analysis prepared for the Project (Pasadena DOT 2021a). The results of the analysis are shown in Table 3.1-3, Peak Daily Existing Emissions, on the following page.

Sensitive Air Quality Receptors

Sensitive receptors include, but are not limited to children, the elderly, persons with preexisting respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Therefore, sensitive receptors land uses include, but are not limited to schools, parks, hospitals, residences, and convalescent homes. The nearest sensitive air quality receptors to the Project site are residences in a mixed-use, multi-story building at 482 South Arroyo Parkway, on the opposite side of the street approximately 100 feet from the Project site.

**TABLE 3.1-3
PEAK DAILY EXISTING EMISSIONS**

Source	Emissions (lbs/day)*					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area sources	1	<1	<1	<1	<1	<1
Energy sources	<1	1	1	<1	<1	<1
Mobile sources	5	2	33	<1	6	2
Total Existing Operational Emissions**	6	3	34	<1	6	2

lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM₁₀: respirable particulate matter 10 microns or less in diameter; PM_{2.5}: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Totals may not add due to rounding.

* Existing emissions were quantified for uses to be demolished, and not for uses to be retained with implementation of the Project or Project with Building A Residential/Commercial. This provides a more conservative analysis of air quality and greenhouse gas emissions, as less emissions would be deducted from the proposed Project's emissions, as shown further below in Table 3.1-8, Net Operational Emissions for the Project and Table 3.1-12, Net Operational Emissions for the Project with Building A Residential/Commercial.

** Values are the higher of summer or winter.

See Appendix B, *Air Quality and Greenhouse Gas Emissions Modeling Data*, for CalEEMod model outputs.

3.1.2 RELEVANT PROGRAMS AND REGULATIONS

Federal

The USEPA defines seven "criteria" air pollutants, as described below. These pollutants are called criteria pollutants because the USEPA has established National Ambient Air Quality Standards (NAAQS) for the concentrations of these pollutants (USEPA 2021b). The CARB has also established standards for the criteria pollutants, known as California Ambient Air Quality Standards (CAAQS), and the State standards are generally more restrictive than the NAAQS. The NAAQS and CAAQS are shown in Table 3.1-4, California and Federal Ambient Air Quality Standards, on the following page.

**TABLE 3.1-4
CALIFORNIA AND FEDERAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ^a	Secondary ^b
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
	1 Hour	0.18 ppm (339 µg/m ³)	0.100 ppm (188 µg/m ³)	–
SO ₂	24 Hour	0.04 ppm (105 µg/m ³)	–	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)	–
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		
<p>O₃: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; PM₁₀: respirable particulate matter 10 microns or less in diameter; AAM: Annual Arithmetic Mean; –: No Standard; PM_{2.5}: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; km: kilometer.</p> <p>^a <i>National Primary Standards</i>: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.</p> <p>^b <i>National Secondary Standards</i>: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.</p> <p>Note: More detailed information in the data presented in this table can be found at the CARB website (www.arb.ca.gov).</p> <p>Source: USEPA 2021b, CARB 2016</p>				

State

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for coordinating and administering both the federal and State air pollution control programs in California. In this capacity, CARB conducts research, sets the CAAQS (as shown above in Table 3.1-4), compiles emission inventories, develops suggested control measures, oversees local programs, and prepares the State Implementation Plan (SIP) for California. For regions that

do not attain the CAAQS, CARB requires the air districts to prepare plans for attaining the standards. These plans are then integrated into the SIP. CARB establishes emissions standards for (1) motor vehicles sold in California, (2) consumer products (e.g., hair spray, aerosol paints, barbecue lighter fluid), and (3) various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Advanced Clean Cars

In January 2012, CARB approved the Advanced Clean Cars program, an emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, 2025 model year automobiles will emit 75 percent fewer smog-forming emissions and 34 percent fewer global warming gases than the average 2012 model year automobile.

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations*) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The current applicable standards are the 2019 Standards, effective January 1, 2020. The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Since using natural gas produces criteria pollutant emissions, a reduction in natural gas consumption results in a related reduction in air quality emissions.² Additional discussion of the Title 24 energy efficiency standards is included in Section 3.4, Greenhouse Gas Emissions. The 2019 standards require that there is sufficient onsite electricity generation to meet the annual electricity usage for low rise residential buildings. The 2022 Energy Efficiency Standards are being developed and would improve upon the 2019 Energy Code for new construction of, and additions and alterations to, residential and nonresidential buildings. Proposed standards would have an effective date of January 1, 2023. The California Energy Commission (CEC) updates the standards every three years.

Title 24 Green Building Standards

The 2019 California Green Building Standards Code (Title 24, Part 6 of the *California Code of Regulations*), also known as the "CALGreen Code," contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail uses, office uses, public schools, and hospitals) throughout California. Development of the CALGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the CALGreen Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy-efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles which, in turn, reduces pollutant emissions.

² Because electricity is not generated on site, the emissions associated with electricity generation are not included in the emissions calculations.

Regional

South Coast Air Quality Management District and Southern California Association of Governments

In the SoCAB, the South Coast Air Quality Management District (SCAQMD) is the agency responsible for protecting public health and welfare through the administration of federal and State air quality laws, regulations, and policies. Included in the SCAQMD's tasks are the monitoring of air pollution; the preparation of the Air Quality Management Plan (AQMP) for the SoCAB; and the promulgation of rules and regulations.

In the Project area, SCAG is the federally designated Metropolitan Planning Organization and the State-designated transportation planning agency for six counties: Riverside, San Bernardino, Los Angeles, Ventura, Imperial, and Orange.

The SCAQMD and SCAG are jointly responsible for formulating and implementing the AQMP for the SoCAB. SCAG's Regional Mobility Plan and Growth Management Plan form the basis for the land use and transportation control portion of the AQMP.

Air Quality Management Plans

The SCAQMD's current air quality planning document is the *2016 Air Quality Management Plan* (2016 AQMP). The SCAQMD adopted the 2016 AQMP on March 3, 2017 (SCAQMD 2021). The 2016 AQMP is a regional and multi-agency effort among the SCAQMD, CARB, SCAG, and USEPA. The SCAQMD is responsible for ensuring that the SoCAB meets the NAAQS and CAAQS by reducing emissions from stationary (area and point), mobile, and indirect sources. To accomplish this goal, the SCAQMD prepares AQMPs in conjunction with the SCAG, County transportation commissions, and local governments; develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary.

The 2016 AQMP evaluates integrated strategies and measures to meet the following NAAQS (SCAQMD 2021):

- 8-hour O₃ (75 parts per billion [ppb]) by 2032³
- Annual PM_{2.5} (12 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) from 2021 to 2025
- 8-hour O₃ (80 ppb) by 2024
- 1-hour O₃ (120 ppb) by 2023
- 24-hour PM_{2.5} (35 $\mu\text{g}/\text{m}^3$) by 2019

South Coast Air Quality Management District Rules

The proposed Project would be required to comply with existing SCAQMD rules for the reduction of fugitive dust and criteria pollutant emissions. The following rules are most relevant to the proposed Project:

SCAQMD Rule 201 requires a "Permit to Construct" prior to the installation of any equipment "the use of which may cause the issuance of air contaminants . . ." and Regulation II provides the

³ On October 1, 2015, the USEPA lowered the 8-hour O₃ standard to 0.070 ppm (70 ppb). The SIP (or AQMP) for the 70 ppb standard will be due 4 years after the attainment/nonattainment designations are issued by the USEPA, which is expected in 2017. Thus, meeting the 70 ppb standard will be addressed in a 2021 AQMP.

requirements for the application for a Permit to Construct. Rule 203 similarly requires a Permit to Operate. Rule 219, Equipment not Requiring a Written Permit Pursuant to Regulation II, identifies “equipment, processes, or operations that emit small amounts of contaminants that shall not require written permits . . .” This would apply to the diesel backup generators that are proposed for each new building.

SCAQMD Rule 402, Nuisance, states that a project 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.”

SCAQMD Rule 403, Fugitive Dust, requires actions to prevent, reduce, or mitigate fugitive particulate matter emissions. These actions include applying water or chemical stabilizers to disturbed soils; managing haul road dust by applying water; covering all haul vehicles before transporting materials; restricting vehicle speeds on unpaved roads to 15 miles per hour (mph); and sweeping loose dirt from paved site access roadways used by construction vehicles. In addition, Rule 403 requires that vegetative ground cover be established on disturbance areas that are inactive within 30 days after active operations have ceased. Alternatively, an application of dust suppressants can be applied in sufficient quantity and frequency to maintain a stable surface. Rule 403 also requires grading and excavation activities to cease when winds exceed 25 mph.

SCAQMD Rule 445 has been adopted to reduce the emissions of particulate matter from wood-burning devices and prohibits the installation of such devices in any new development.

SCAQMD Rule 1113 governs the sale of architectural coatings and limits the VOC content in paints and paint solvents. Although this rule does not directly apply to the Project, it does dictate the VOC content of paints available for use during building construction.

SCAQMD Rule 1403, Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACMs). All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings. Handling of ACMs is discussed in the Initial Study and Section 3.5, Hazards and Hazardous Materials, of this Draft EIR.

City

The Open Space and Conservation Element of the City of Pasadena’s General Plan states, “. . . while air quality is not a state-mandated element, air quality is included in the Open Space and Conservation Element to address reducing pollutant levels through stationary source, mobile source, transportation and land use control, and energy conservation measures” (Pasadena 2012). There are no policies in the Open Space and Conservation Element that are directly applicable to the Project air quality emissions or issues. The goals and policies, where referenced to air quality, are directed towards reduction of greenhouse gas (GHG) emissions and the sequestration of CO₂. GHG emissions are discussed in Section 3.4, Greenhouse Gas Emissions, of this Draft EIR.

3.1.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse air quality impact if it would:

Threshold 3.1a: Conflict with or obstruct implementation of the applicable air quality plan;

Threshold 3.1b: Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard; and/or

Threshold 3.1c: Expose sensitive receptors to substantial pollutant concentrations.

Appendix G of the State CEQA Guidelines also states that the significance criteria established by the applicable air quality management district may be relied upon to make significance determinations. The SCAQMD has established significance thresholds to assess the regional and localized impacts of Project-related air pollutant emissions. Table 3.1-5, SCAQMD Air Quality Significance Thresholds, on the following page presents the significance thresholds applied to the Project.

The Initial Study (provided in Appendix A-1) concluded the following threshold related to air quality was determined to result in less than significant impacts and was not carried forward into the Draft EIR for further analysis:

- Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

3.1.4 METHODOLOGY

In June 2021, the SCAQMD in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™), version 2020.4.0 (CAPCOA 2021). The purpose of this model is to calculate construction-source and operational-source pollutants (NO_x, VOC, PM₁₀, PM_{2.5}, SO_x, and CO) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures. CalEEMod version 2020.4.0 was used to estimate the criteria air pollutant emissions associated with the existing land uses to be removed and the proposed land uses for the Project and Project with Building A Residential/Commercial. The inputs and data for the modeling are described above for existing uses; below for proposed uses; and in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data.

**TABLE 3.1-5
SCAQMD AIR QUALITY SIGNIFICANCE THRESHOLDS**

Mass Daily Thresholds^a		
Pollutant	Construction	Operation
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
TACs, Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk \geq 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas \geq 1 in 1 million) Chronic & Acute Hazard Index \geq 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO ₂ e for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants^{b, c}		
NO ₂ 1-hour average annual arithmetic mean	The SCAQMD is in attainment; the Project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (State) 0.03 ppm (State) and 0.0534 ppm (federal)	
PM10 24-hour average annual average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^c & 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$	
PM2.5 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^c & 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
SO ₂ 1-hour average 24-hour average	0.25 ppm (State) & 0.075 ppm (federal – 99 th percentile) 0.04 ppm (State)	
Sulfate 24-hour average	25 $\mu\text{g}/\text{m}^3$ (State)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20.0 ppm (State) and 35 ppm (federal) 9.0 ppm (State/federal)	
Lead 30-day average Rolling 3-month average	1.5 $\mu\text{g}/\text{m}^3$ (State) 0.15 $\mu\text{g}/\text{m}^3$ (federal)	
<p>NO_x: nitrogen oxides, lbs/day: pounds per day, VOC: volatile organic compound, PM10: respirable particulate matter with a diameter of 10 microns or less, PM2.5: fine particulate matter with a diameter of 2.5 microns or less, SO_x: sulfur oxides, CO: carbon monoxide, TACs: toxic air contaminants, GHG: greenhouse gases, MT/yr CO₂e: metric tons per year of carbon dioxide equivalents, NO₂: nitrogen dioxide, ppm: parts per million, $\mu\text{g}/\text{m}^3$: micrograms per cubic meter; SCAQMD: South Coast Air Quality Management District</p> <p>^a Source: SCAQMD CEQA Handbook (SCAQMD 1993)</p> <p>^b Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated</p> <p>^c Ambient air quality threshold is based on SCAQMD Rule 403</p> <p>Source: SCAQMD 2019</p>		

3.1.5 ENVIRONMENTAL IMPACTS

Threshold 3.1a: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

CEQA requires a discussion of any inconsistencies between a project and applicable General Plans (GPs) and regional plans (Section 15125 of the State CEQA Guidelines). The regional plan that applies to the Project and Project with Building A Residential/Commercial is the SCAQMD's AQMP, discussed above in Section 3.1.2.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated below for the Project and Project with Building A Residential/Commercial.

Project

First Criterion of AQMP Consistency

With respect to the first criterion, based on the air quality modeling conducted for the Project (see the discussion provided below under Thresholds 3.1b and 3.1c), construction and operation of the Project would not exceed the SCAQMD's CEQA thresholds of significance and consequently would not result in an increase in the frequency or severity of existing air quality violations nor cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP. This is demonstrated in Tables 3.1-6 and 3.1-7, below. Therefore, the Project is consistent with the first criterion.

Second Criterion of AQMP Consistency

With respect to the second criterion, the Project was assessed as to whether it would exceed the assumptions in the AQMP. The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including SCAG's 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methods for various source categories; and SCAG's latest growth forecasts.⁴ The 2016 AQMP includes strategies and measures necessary to meet the NAAQS. The AQMP is based on projections of energy usage and vehicle trips from land uses within the SoCAB.

⁴ It is noted that SCAG adopted the 2020-2045 RTP/SCS in September 2020 and that SCAQMD is in the process of developing a 2022 AQMP.

The Project site is within the CD-6 (Central District Specific Plan, Arroyo Corridor/Fair Oaks subdistrict) zoning district. This is discussed further in Section 2.0, Environmental Setting and Project Description, of this Draft EIR. As discussed in Section 2.0, High-Quality Transit Areas (HQTAs) are areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. Transit Priority Areas (TPAs) are areas within one-half mile of a major transit stop that is existing or planned (SCAG 2020). The Project site is within both a HQTA and TPA. Metro's Gold Line runs adjacent to the western site boundary. The nearest light rail platforms are Del Mar Station located approximately ¼-mile due north and Fillmore Station located approximately ¼-mile due south. Additional public transit service present near the site includes the California Boulevard/Arroyo Parkway Metro bus stop located in the ROW on the southern site boundary, and the Bellevue Drive/Arroyo Parkway Metro bus stop located in the ROW at the northeast corner of the site. The proximity of the Project site to the station would encourage the use of mass transit which is consistent with the AQMP's goal of using non-single occupancy vehicles. The Project would be a mixed-use development, providing a mix of medical, commercial, restaurant, and residential uses. The Project site is suitably located to encourage the use of public transit and active transportation modes for the residences, employees, and visitors to the Project site.

As discussed in Section 3.6, Land Use and Planning, of this Draft EIR, the Applicant seeks approval to rezone the site as a Planned Development (PD) district and approval of a PD Plan. The City's PD zone is a special purpose zoning district defined pursuant to Section 17.26.020(C) of the Pasadena Municipal Code. However, the Project uses would not exceed the development cap of 87 dwelling units per acre and 3.0 floor area ratio (FAR), and as such, would be consistent with the existing High Mixed-Use General Plan land use designation of the Project site. Because the General Plans of cities within the SoCAB are used to determine the regional emissions of the Basin, emissions related to the development of the Project site are therefore consistent with the growth expectations for the region. As such, the Project would not exceed the anticipated growth accounted for within the Land Use Element of the General Plan which helped formed the basis of the AQMP. In addition, the emissions generated by the Project are below the SCAQMD's significance thresholds, as demonstrated below. As such, no conflict with the 2016 AQMP would occur with the Project. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

First Criterion of AQMP Consistency

The impact findings for the Project with Building A Residential/Commercial would not differ from the impact findings for the Project, regarding conflict with or obstruction of the applicable air quality management plan. As demonstrated for the Project, the Project with Building A Residential/Commercial would be consistent with the first criterion for consistency with the 2016 AQMP. The Project would also not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP. This is demonstrated in Tables 3.1-10 and 3.1-12 presented further below in response to Threshold 3.1b, which show that the Project with Building A Residential/Commercial would result in criteria pollutant emissions that are less than the SCAQMD's thresholds.

Second Criterion of AQMP Consistency

For the second criterion, the Project with Building A Residential/Commercial would also be located within a HQTA and TPA, and as such, encourages the use of mass transit, which is consistent with the AQMP's goal of using non-single occupancy vehicles. In fact, the Project with Building A Residential/Commercial would locate more residential uses proximate to uses that would

encourage the use of mass transit which is consistent with the AQMP's goal of using non-single occupancy vehicles. Additionally, the Project with Building A Residential/Commercial would not exceed the development cap of 87 dwelling units per acre or 3.0 FAR, and as such, would be also consistent with the High Mixed-Use General Plan land use designation of the Project. Consequently, the Project with Building A Residential/Commercial would be consistent with the second criterion for consistent with an applicable AQMP. There would be a less than significant impact and no mitigation is required.

Threshold 3.1b: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or state ambient air quality standard?

As shown above in Table 3.1-2, the Project site is in a nonattainment area for O₃, PM₁₀, and PM_{2.5}. The Project and Project with Building A Residential/Commercial would generate PM₁₀, PM_{2.5}, and O₃ precursors (NO_x and VOC) during short-term construction and long-term operations, as discussed below.

Project

Construction Impacts

Construction-Related Regional Emissions

A project may have a significant impact where project-related emissions would exceed federal, State, or regional standards or thresholds, or where project-related emissions would substantially contribute to an existing or projected air quality violation. Conversely, a project with daily emission rates below the SCAQMD's established air quality significance thresholds (shown in Table 3.1-5) would have a less than significant effect on regional air quality. Project emissions were estimated using CalEEMod version 2020.4.0 program, as described above.

Project construction is planned to occur from March 2023 to January 2026 with a six-day work week. The CalEEMod input for construction emissions was based on the Project's construction assumptions and default assumptions derived from CalEEMod. Demolition would include an estimated 45,912 square feet (sf) of buildings and the export of approximately 300 14-cubic yard (cy) truckloads of debris. Grading for the subterranean garage and other areas for improvement would require the export of an estimated 184,013 cy of soil, requiring approximately 13,200 truckloads for export.

Table 3.1-6, Estimated Maximum Daily Construction Emissions, presents the estimated maximum daily emissions occurring both onsite and offsite during construction of the Project and compares the estimated emissions with the SCAQMD's daily regional emission thresholds. As shown in Table 3.1-6, all pollutant emissions would be below the SCAQMD's respective thresholds.

**TABLE 3.1-6
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
FOR THE PROJECT**

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
2023	6	42	57	<1	4	2
2024	5	39	57	<1	3	2
2025	52	37	56	<1	3	2
2026	52	5	8	<1	1	<1
Maximum Emissions	52	42	57	<1	4	2
SCAQMD Thresholds (Table 3.1-5)	75	100	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No

lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Values are higher of summer or winter.

Source: SCAQMD 2019 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

Construction-Related Localized Emissions

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of NO₂, CO, PM10, and PM2.5 are examined based on SCAQMD's localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO₂ and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions screening thresholds in the lookup tables are based on the SCAQMD's Air Quality Significance Thresholds and CARB's 1-hour NO₂ AAQS (SCAQMD 2008). The nearest off-site receptors that could be exposed for 1 hour to NO₂ and CO during construction would be the commercial uses west of the site beyond the light rail tracks, approximately 40 feet from the Project's western boundary. The nearest *sensitive* air quality receptors that could be exposed to PM10 and PM2.5 for 24 hours are residences in a multi-story building at 482 South Arroyo Parkway, approximately 100 feet from the Project site.

The screening thresholds are for receptors within 25 meters (82 feet) of the Project site to account for non-sensitive receptors located closer than the nearest sensitive receptor. The screening thresholds for receptors farther away would be higher and the Project emissions would be a smaller fraction of the screening thresholds. Table 3.1-7, Localized Construction Emissions for the Project, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LST screening thresholds. It is noted that this LST analysis is conservative because the nearest sensitive receptor for PM10 and PM2.5 is approximately 30 meters (100 feet) away.

The Project's maximum daily on-site emissions would occur during the building construction phase in 2023. As shown in Table 3.1-7, Localized Construction Emissions for the Project, the local emissions from the Project would be below the LST screening thresholds. There would be a less than significant impact, and no mitigation is required.

**TABLE 3.1-7
LOCALIZED CONSTRUCTION EMISSIONS FOR THE PROJECT**

Emissions and Thresholds	Emissions (lbs/day)			
	NO _x	CO	PM10	PM2.5
Project maximum daily on-site emissions	41	52	2	2
SCAQMD LST Screening Threshold^a	69	535	4	3
Exceed threshold?	No	No	No	No
lbs/day: pounds per day; NO _x : nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; LST: localized significance threshold. ^a Data is for SCAQMD Source Receptor Area 8, West San Gabriel Valley. Source: SCAQMD 2009 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.				

Cumulative Construction Emissions

Construction activities associated with the Project would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Tables 3.1-6 and 3.1-7, respectively. Short-term cumulative impacts related to air quality could occur if construction of the Project and other projects in the surrounding area were to occur simultaneously. In particular, with respect to local impacts, the consideration of cumulative construction particulate matter (i.e., PM10 and PM2.5) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of: (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants), and (2) the SCAQMD's required dust-control measures, which further limit particulate dispersion from the Project site. As of the preparation of this Draft EIR, there are no known nearby projects that would be concurrently under construction.

SCAQMD's policy with respect to cumulative impacts associated with the above-referenced pollutants and their precursors is that impacts that would be directly less than significant on a project level would also be cumulatively less than significant (SCAQMD 2003a). Because the Project's construction emissions are below the SCAQMD's regional and local significance thresholds, local construction emissions would not be cumulatively considerable. There would be a less than significant impact, and no mitigation is required.

Operational Impacts

The following section provides an analysis of potential long-term air quality impacts to regional air quality with the long-term operation of the Project. The potential operations-related air emissions have been assessed for both regional and local criteria pollutant emissions and cumulative impacts.

Operations-Related Regional Emissions

Operational emissions are comprised of area, energy, mobile, and stationary source emissions. The principal source of all long-term criteria pollutant emissions would be vehicle trips. Area source emissions are based on CalEEMod assumptions for the specific land uses and size. Energy emissions are based on the Applicant's estimate of natural gas use. Mobile source emissions are based on the estimated Project-related trip generation forecast of 6,366 daily trips, as provided in the Project TIA (Pasadena DOT 2021a) and the vehicle miles traveled (VMT) assumptions for the Project's trips (Pasadena DOT 2020). The emissions analyses for the Project also includes the anticipated electrical demand, natural gas demand, and mobile trips for the two historic buildings to be retained, which are assumed to operate as restaurants for the purposes of this Draft EIR. The peak daily Project long-term gross and net operational emissions are

summarized below in Table 3.1-8, Net Operational Emissions for the Project. The net operational emissions account for the emissions from the land uses to be demolished and/or replaced with the proposed Project uses on the site plus the land uses to be retained. As shown, all criteria pollutant emissions would be less than the SCAQMD mass regional daily emissions thresholds. It should be noted that operational emissions, without reductions from existing uses, would also be less than the SCAQMD mass regional daily emissions thresholds. There would be a less than significant operational regional impact, and no mitigation is required.

**TABLE 3.1-8
NET OPERATIONAL EMISSIONS FOR THE PROJECT**

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
Area sources	8	<1	15	<1	<1	<1
Energy sources	<1	1	1	<1	<1	<1
Mobile sources	12	6	88	<1	18	5
Stationary – Generators	1	2	2	<1	<1	<1
Total Gross Operational Emissions*	21	10	106	<1	18	5
Less Existing Emissions (Table 3.1-3)	6	3	34	<1	6	2
Net Operational Emissions	15	6	71	<1	12	3
SCAQMD Significance Thresholds (Table 3.1-5)	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Some totals do not add due to rounding. Highest of Winter or Summer model runs shown.

Source: SCAQMD 2019 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

Operations-Related Localized Emissions

Project-related air emissions from on-site sources such as emergency generators, vehicle usage (cars and trucks), landscaping equipment, and on-site usage of natural gas appliances may have the potential to generate emissions that exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB.

The local air quality emissions from on-site operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the LST Methodology, as discussed further above. Table 3.1-9, Localized Operational Emissions for the Project, shows the on-site operational emissions from area sources, energy usage, vehicles operating on-site, and the calculated emissions screening thresholds.

**TABLE 3.1-9
LOCALIZED OPERATIONAL EMISSIONS FOR THE PROJECT**

On-Site Emission Source	Pollutant Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	0.2	15.0	0.1	0.1
Energy Sources	1.5	1.0	0.1	0.1
Mobile Sources ^a	0.2	2.2	0.4	0.1
Stationary Sources	2.0	1.8	0.1	0.1
Project's Total Maximum Daily On-Site Emissions	3.8	20.0	0.7	0.4
SCAQMD LST Screening Threshold^b	98.0	812.0	2.0	1.0
Exceeds Threshold?	No	No	No	No

lbs/day: pounds per day; NO_x: nitrogen oxides; CO: carbon monoxide; PM₁₀: respirable particulate matter 10 microns or less in diameter; PM_{2.5}: fine particulate matter 2.5 microns or less in diameter; LST: localized significance threshold.

^a On-site vehicle emissions based on 2.5% of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project site.

^b Data is for SCAQMD Source Receptor Area 8, West San Gabriel Valley, with a source receptor distance of 25-meters, 2 acres.

Source: SCAQMD 2009 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

As shown in Table 3.1-9, operation of the Project would not exceed the local NO_x, CO, PM₁₀, or PM_{2.5} LST screening thresholds. Operation of the Project would have a less than significant local operational impact to sensitive receptors, and no mitigation is required.

Cumulative Operational Emissions

As shown in Tables 3.1-8 and 3.1-9 above, operational regional emissions of VOC, NO_x, PM₁₀, and PM_{2.5} would be below the SCAQMD CEQA significance thresholds. Consistent with the approach described above (under the header "Cumulative Construction Impacts"), because the Project's operational emissions are less than the respective SCAQMD daily operational thresholds, the Project's operations phase activities would not contribute to a cumulatively considerable net increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

Construction Impacts

Construction-Related Regional Emissions

The Project with Building A Residential/Commercial construction is also planned to occur from March 2023 to January 2026 with a six-day work week. All Project with Building A Residential/Commercial construction assumptions would be consistent with those of the Project, except that grading for the subterranean garage and other areas for improvement would require 36,802 cy less of soil export than the Project (for a total of 147,211 cy of soil export) and 2,685 less truckloads than the Project (for a total of 10,515 truckloads for export). Table 3.1-10, Estimated Maximum Daily Construction Emissions for the Project with Building A Residential/Commercial, presents the estimated maximum daily emissions occurring both onsite and offsite during construction of the Project with Building A Residential/Commercial compared to the SCAQMD's daily regional emission thresholds. As shown in Table 3.1-10, all pollutant emissions would be below the SCAQMD's respective thresholds, consistent with the Project. The

emissions for the Project with Building A Residential/Commercial are comparable to those of the Project (refer to Table 3.1-6).

**TABLE 3.1-10
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS FOR THE
PROJECT WITH BUILDING A RESIDENTIAL/COMMERCIAL**

Year	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
2023	6	42	58	<1	4	2
2024	5	39	57	<1	3	2
2025	48	37	57	<1	3	2
2026	48	5	8	<1	1	<1
Maximum Emissions	48	42	58	<1	4	2
SCAQMD Thresholds (Table 3.1-5)	75	100	550	150	150	55
Exceeds SCAQMD Thresholds?	No	No	No	No	No	No

lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Values are higher of summer or winter.

Source: SCAQMD 2019 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod model outputs.

Construction-Related Localized Emissions

Localized emissions for the Project with Building A Residential/Commercial were calculated to assess local air quality based on its construction assumptions. These were the same as the localized emissions for the Project. Consistent with the Project, the nearest off-site receptors that could be exposed for 1 hour to NO₂ and CO during construction would be the commercial uses west of the site, approximately 40 feet from the Project's western boundary. The nearest sensitive air quality receptors that could be exposed to PM10 and PM2.5 for 24 hours are residences in a multi-story building at 482 South Arroyo Parkway, approximately 100 feet from the Project site.

The emissions screening thresholds are for receptors within 25 meters (82 feet) of the Project site to account for non-sensitive receptors located closer than the nearest sensitive receptor. The screening thresholds for receptors farther away would be higher and the Project emissions would be a smaller fraction of the thresholds. Table 3.1-11, Localized Significance Threshold Construction Emissions for the Project with Building A Residential/Commercial, shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LST screening thresholds. As with the Project, the LST analysis is conservative because the nearest sensitive receptor for PM10 and PM2.5 is approximately 30 meters (100 feet) away. The Project with Building A Residential/Commercial's maximum daily on-site emissions would also occur during the building construction phase in 2023, as for the Project. As shown in Table 3.1-11, the local emissions from the Project with Building A Residential/Commercial would be below the screening thresholds, and no significant impacts would result. No mitigation is required. The magnitude of emissions for the Project with Building A Residential/Commercial are comparable to the Project.

**TABLE 3.1-11
LOCALIZED CONSTRUCTION EMISSIONS FOR THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Emissions and Thresholds	Emissions (lbs/day)			
	NO _x	CO	PM10	PM2.5
Project maximum daily on-site emissions	41	52	2	2
SCAQMD LST Screening Threshold^a	69	535	4	3
Exceed threshold?	No	No	No	No

lbs/day: pounds per day; NO_x: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; LST: localized significance threshold.

^a Data is for SCAQMD Source Receptor Area 8, West San Gabriel Valley.

Source: SCAQMD 2009 (thresholds); see Appendix B, *Air Quality and Greenhouse Gas Emissions Modeling Data*, for CalEEMod outputs.

Cumulative Construction Emissions

Construction activities associated with the Project with Building A Residential/Commercial would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Tables 3.1-10 and 3.1-11, respectively. Consistent with the Project analysis above, because the construction emissions estimated for the Project with Building A Residential/Commercial are below the SCAQMD's regional and local significance thresholds, construction emissions would not be cumulatively considerable. There would be a less than significant impact, and no mitigation is required.

Operational Impacts

Operations-Related Regional Impacts

Implementation of the Project with Building A Residential/Commercial would result in increased residential dwelling units and no medical office building uses. As such, the emissions are quantified in Tables 3.1-12, Net Operational Emissions for the Project with Building A Residential/Commercial, and 3.1-13, Localized Operational Emissions for the Project with Building A Residential/Commercial, to provide a comparison.

Operational emissions are comprised of area, energy, mobile, and stationary source emissions, consistent with the Project. The principal source of all long-term criteria pollutant emissions would be vehicle trips, consistent with the Project. However, as there would be less trips with the Project with Building A Residential/Commercial, there would be lower mobile emissions. Area source emissions are based on CalEEMod assumptions for the specific land uses and size. Energy emissions are based on the Applicant's estimate of natural gas use. Mobile source emissions are based on the estimated Project with Building A Residential/Commercial-related trip generation forecast of 2,494 daily trips (with transit reductions), as provided in the TIA prepared for the Project with Building A Residential/Commercial uses (Pasadena DOT 2021b), and the vehicle miles traveled (VMT) assumptions for the Project with Building A Residential/Commercial's trips (Pasadena DOT 2021c). It should be noted that the emissions analyses also include the anticipated electrical demand, natural gas demand, and mobile trips for the conversion of the two historic buildings to commercial uses. The peak daily long-term gross and net operational emissions are summarized below in Table 3.1-12. The net operational emissions account for the emissions from the land uses to be removed from the Project site. The operational emissions are comparable to those of the Project. The net operational emissions would be less than the SCAQMD mass regional daily emissions thresholds. It should be noted that the total gross

operational emissions, without reductions from existing uses, would also be less than the SCAQMD mass regional daily emissions thresholds. There would be a less than significant impact, and no mitigation is required.

**TABLE 3.1-12
NET OPERATIONAL EMISSIONS FOR THE PROJECT
WITH BUILDING A RESIDENTIAL/COMMERCIAL**

Source	Emissions (lbs/day)*					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
Area sources	9	<1	31	<1	<1	<1
Energy sources	<1	1	1	<1	<1	<1
Mobile sources	5	2	34	<1	6	2
Stationary – Generators	1	2	2	<1	<1	<1
Total Gross Operational Emissions*	15	6	67	<1	7	2
Less Existing Emissions (<i>Table 3.1-3</i>)	6	3	34	<1	6	2
Net Operational Emissions*	9	2	33	<1	<1	<1
SCAQMD Significance Thresholds (<i>Table 3.1-5</i>)	55	55	550	150	150	55
Significant Impact?	No	No	No	No	No	No

lbs/day: pounds per day; VOC: volatile organic compound; NO_x: nitrogen oxides; CO: carbon monoxide; SO_x: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Some totals do not add due to rounding.

Source: SCAQMD 2019 (thresholds); see Appendix B, *Air Quality and Greenhouse Gas Emissions Modeling Data*, for CalEEMod model outputs.

Operations-Related Localized Emissions

Same as the Project, Project with Building A Residential/Commercial-related air emissions from on-site sources such as emergency generators, vehicle usage (cars and trucks), landscaping equipment, and on-site usage of natural gas appliances may have the potential to generate emissions that exceed the State and federal air quality standards in the vicinity of the Project even though these pollutant emissions may not be significant enough to create a regional impact to the SoCAB.

The local air quality emissions from on-site operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the LST Methodology. Table 3.1-13 shows the on-site operational emissions from area sources, energy usage, vehicles operating on-site, and the calculated emissions screening thresholds.

**TABLE 3.1-13
LOCALIZED OPERATIONAL EMISSIONS FOR THE PROJECT
WITH BUILDING A RESIDENTIAL/COMMERCIAL**

On-Site Emission Source*	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.4	31.0	0.2	0.2
Energy Sources	1.1	0.5	0.1	0.1
Mobile Sources ^a	0.1	0.8	0.2	0.04
Stationary Sources	2.0	1.8	0.1	0.1
Project's Total Maximum Daily On-Site Emissions	3.5	34.2	0.5	0.4
SCAQMD LST Screening Threshold^b	98.0	812.0	2.0	1.0
Exceeds Threshold?	No	No	No	No

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; LST: localized significance threshold.

^a On-site vehicle emissions based on 2.5% of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the Project site.

^b Data is for SCAQMD Source Receptor Area 8, West San Gabriel Valley, with a source receptor distance of 25-meters, 2 acres.

Source: SCAQMD 2009 (thresholds); see Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, for CalEEMod outputs.

The data provided in Table 3.1-13 shows that the operations of the Project with Building A Residential/Commercial would not exceed the local NOx, CO, PM10, or PM2.5 screening thresholds, consistent with the Project. The operational emissions are comparable to those of the Project. The emissions would be less than the SCAQMD LST screening thresholds. There would be a less than significant impact, and no mitigation is required.

Cumulative Operational Impacts

Same as the Project, as shown in Tables 3.1-12 and 3.1-13, operational emissions of VOC, NOx, PM10, and PM2.5 would be below the SCAQMD CEQA significance thresholds for the Project with Building A Residential/Commercial. Therefore, because the Project with Building A Residential/Commercial's operational emissions are less than the respective SCAQMD daily operational thresholds, the Project with Building A Residential/Commercial's operational activities would not contribute to a cumulatively considerable net increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable. There would be a less than significant impact, and no mitigation is required. This is comparable to the findings for the Project.

Threshold 3.1c: Would the Project expose sensitive receptors to substantial pollutant concentrations?

A significant impact may occur when a project would generate pollutant concentrations to a degree that would significantly affect sensitive receptors, which include populations that are more susceptible to the effects of air pollution than the population at large. Exposure of sensitive receptors is addressed for emissions from construction and operation of the Project. To address construction activities, the analysis below includes the following issues: localized air quality impacts from construction; and toxic air contaminants (TACs), specifically diesel particulate matter (DPM) from on-site construction. To address operational emissions, the analysis evaluates potential exposure to sensitive receptors, the analysis below discusses local air quality impacts from on-site operations, and CO hotspots. Operational, long-term TACs may be generated by

some industrial land uses; commercial land uses (e.g., gas stations and dry cleaners); and diesel vehicles at bus stations or warehouses. The proposed residential and commercial uses do not generate substantial quantities of TACs and are therefore not addressed in this analysis.

Project

Construction

Localized Impacts from Construction

Localized impacts from construction were analyzed above in response to Threshold 3.1b; specifically, Table 3.1-7 and associated analysis. Emissions were found to be less than the applicable SCAQMD LST screening thresholds; therefore, there would be a less than significant impact related to localized impacts from construction of the Project, and no mitigation is required.

Toxic Air Contaminant Emissions from On-Site Construction

Construction activities would result in short-term, project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation; paving; building construction; and other miscellaneous activities. CARB identified DPM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments—which determine the exposure of sensitive receptors to TAC emissions—should be based on a 40-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period of approximately 34 months would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation is required.

Operational

Localized Criteria Pollutants from On-site Operations

Localized impacts from construction were analyzed in response to Threshold 3.1b; specifically, Table 3.1-9 and associated analysis. Emissions were found to be less than the applicable SCAQMD LST screening thresholds. Therefore, there would be a less than significant impact related to localized impacts from operation of the Project, and no mitigation is required.

Carbon Monoxide Hotspot

In an urban setting, vehicle exhaust is the primary source of CO. Consequently, the highest CO concentrations generally are found close to congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as the distance from the emissions source (e.g., congested intersection) increases. Localized areas where ambient concentrations exceed federal and/or State standards for CO are termed CO “hotspots”. According to the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol), projects may worsen air quality if they worsen

traffic flow, defined for signalized intersections as increasing average delay at intersections operating at Level of Service (LOS) E or F or causing an intersection that would operate at LOS D or better without the Project, to operate at LOS E or F with the Project (UCD ITS 1997). If impacts are less than significant close to congested intersections, impacts also would be less than significant at more distant sensitive-receptor and other locations. The Project's Transportation Impact Analysis – Outside of CEQA Analysis identified one signalized intersection, Arroyo Parkway at California Boulevard, that would operate at LOS E in the AM and PM peak hours with increased delay under Existing Plus Project conditions when compared to existing conditions (Pasadena DOT 2021a).

The 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (SCAQMD 2003b) evaluated numerous intersections for the potential to result in CO hotspots and found that the 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. Based on data in the Project's Transportation Impact Analysis – Outside of CEQA Analysis, average daily traffic at the Arroyo Parkway/California Street intersection under Existing Plus Project conditions is conservatively estimated at 48,000 vehicles based on PM peak hour traffic volumes being approximately 10 percent of average daily trips. The 48,000 daily trips at this intersection is substantially less than the 400,000 vehicles per day needed to exceed the CO standards. Therefore, CO concentrations at the intersection would be substantially less than the CO ambient air quality standards. Moreover, vehicle emission standards have become increasingly more stringent since 1992 and background CO concentrations are less than in 1992. As such, the small contribution of Project-related traffic would not result in CO concentrations that would exceed either the State or federal ambient air quality standards. The Project would result in less than significant impacts related to CO hotspots, and no mitigation is required.

Project with Building A Residential/Commercial

Construction

Localized Impacts from Construction

Localized impacts from construction were analyzed in response to Threshold 3.1b; specifically, Table 3.1-11 and associated analysis. Emissions were found to be less than the applicable SCAQMD LST screening thresholds. Therefore, there would be a less than significant impact related to localized impacts from construction of the Project with Building A Residential/Commercial, and no mitigation is required. This is comparable to the findings of the Project.

Toxic Air Contaminant Emissions from On-Site Construction

As with the Project, for the Project with Building A Residential/Commercial there would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period of approximately 34 months would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation is required. This is comparable to the findings of the Project.

Operational

Localized Criteria Pollutants from On-site Operations

Localized impacts from construction were analyzed in response to Threshold 3.1b; specifically, Table 3.1-9 and associated analysis. Emissions were found to be less than the applicable SCAQMD LST screening thresholds. Therefore, there would be a less than significant impact related to localized impacts from operation of the Project with Building A Residential/Commercial, and no mitigation would be required. This is comparable to the finding for the Project.

Carbon Monoxide Hotspot

Consistent with the Project, the Project with Building A Residential/Commercial's Transportation Impact Analysis – Outside of CEQA Analysis identified one signalized intersection, Arroyo Parkway at California Boulevard, that would operate at LOS E in the AM and PM peak hours with increased delay under Existing Plus Project conditions when compared to existing conditions for the PM peak hour, and slightly reduced delay for the AM peak hour (Pasadena DOT 2021b). Based on data in the Project with Building A Residential/Commercial TIA (Pasadena DOT 2021c), average daily traffic at the Arroyo Parkway/California Street intersection under Existing Plus Project conditions is conservatively estimated at 45,000 vehicles. Therefore, CO concentrations at the intersection would be substantially less than the CO ambient air quality standards. Moreover, vehicle emission standards have become increasingly more stringent since 1992 and background CO concentrations are less than in 1992. As such, the small contribution of Project-related traffic would not result in CO concentrations that would exceed either the State or federal ambient air quality standards. The Project with Building A Residential/Commercial would result in less than significant impacts related to CO hotspots, and no mitigation is required. This is comparable to the findings for the Project.

3.1.6 CUMULATIVE IMPACTS

Project

Consistency with the AQMP, as analyzed in Threshold 3.1a, is not subject to cumulative impact analysis. Threshold 3.1b analyzed cumulative construction and operational impacts and found both to be less than significant. SCAQMD's policy with respect to cumulative impacts—impacts that would be directly less than significant on a project level would also be cumulatively less than significant—is applicable to the TAC analysis analyzed in response to Threshold 3.1c. Direct TAC impacts would be less than significant; therefore, cumulative TAC impacts would be less than significant for the Project. With respect to CO hotspot impacts, although cumulative traffic is not addressed in the TIA, the Existing Plus Project traffic volume at the Arroyo Parkway/California Street intersection is substantially below the level of concern such that cumulative traffic could not approach the level of significance. There would be no cumulatively considerable impacts with Project implementation, and no mitigation is required.

Project with Building A Residential/Commercial

The cumulative impact findings for the Project, as stated above, would be applicable to the Project with Building A Residential/Commercial. Therefore, there would be no cumulatively considerable impact for the Project with Building A Residential/Commercial, and no mitigation is required.

3.1.7 MITIGATION MEASURES

No significant impacts related to air quality would occur, and no mitigation is required.

3.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.1.9 SUMMARY OF ANALYSIS

Project

The Project would not result in a conflict with or obstruct implementation of the applicable air quality plan (the SCAQMD's 2016 AQMP); therefore, there would be less than significant impacts. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or State AAQS, and impacts would be less than significant. The Project would not expose sensitive receptors to substantial pollutant concentrations, and as such, this impact would be less than significant.

Project with Building A Residential/Commercial

The summary of findings for the Project with Building A Residential/Commercial would be comparable to the findings for the Project. Specifically, the Project with Building A Residential/Commercial would not result in a conflict with or obstruct implementation of the applicable air quality plan (the SCAQMD's 2016 AQMP); therefore, there would be less than significant impacts. The Project with Building A Residential/Commercial would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or State AAQS, and impacts would be less than significant. The Project with Building A Residential/Commercial would not expose sensitive receptors to substantial pollutant concentrations, and as such, this impact would be less than significant.

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3.2 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section addresses potential impacts to cultural and paleontological resources that could result from the implementation of the Project or Project with Building A Residential/Commercial. Information in this section is derived from a *Historical Resource Assessment Report* (Historical Resource Assessment) prepared for the Project site by PaleoWest, LLC and dated January 14, 2022 (PaleoWest 2022, Appendix C-1); an archaeological records search conducted by the South Central Coastal Information Center (SCCIC) on July 24, 2020 (Appendix C-2); the Sacred Lands File search conducted by the Native American Heritage Commission (NAHC) received on July 15, 2020 and the Native American consultation initiated by the City on May 28, 2020 (Appendix C-2); and a paleontological resource record search conducted by the Natural History Museum of Los Angeles County (NHM) received on December 25, 2020 (Appendix C-3). Section 3.10, Tribal Cultural Resources, provides further information regarding the Native American consultation conducted pursuant to Assembly Bill (AB) 52.

3.2.1 EXISTING CONDITIONS

Archaeological and Historical Resources

Historical Resource Assessment Report

A pedestrian survey of the Project site was conducted as part of the Historical Resource Assessment by PaleoWest on May 4, 2020. During the field survey, the exteriors of the buildings within the Project site were analyzed, photographed, and recorded. Any building or structure determined to have been built prior to 1975 or to be potentially eligible for the CRHR were formally evaluated on Department of Parks and Recreation (DPR) 523 series forms. The Historical Resource Assessment from PaleoWest is presented in Appendix C-1.

In addition to the Project site, the general conditions and character of the surrounding area were observed during the field survey on May 4, 2020. Attention to building types, uses, spatial organization, periods of construction, architectural styles, and other characteristics were noted at this time. A subsequent desktop analysis of the previously documented historical resources identified within the Project vicinity was also conducted. This entailed using readily available digital tools, such as street views from February 2021, to confirm current conditions of these resources and to cross-reference this with existing documentation related to the historic status of each resource, including California Historical Resources Inventory Database (CHRID) entries, DPR 523 forms, and National Register of Historic Preservation (NRHP) nominations.

South Central Coastal Information Center Record Search

A literature review and records search were conducted by Psomas at the SCCIC at California State University, Fullerton on July 30, 2020. The SCCIC records were used by Psomas and provided to PaleoWest. This inventory effort included the Project site and a 0.5-mile radius around the Project site, collectively termed the "Project study area." The objective of this records search was to identify prehistoric or historical cultural resources that have been recorded within the broader context surrounding the Project site during prior cultural resource investigations.

The SCCIC search included a review of all recorded sites and cultural resources reports on file for the Project study area. The results from the information center indicated that 17 cultural resources investigations were previously conducted within the 0.5-mile radius. However, of the 17 previous investigations, the SCCIC indicated that none of the studies overlapped with the current Project site.

While no previous investigations included any portion of the Project site, there are individual resources documented outside the preparation of a cultural resources investigation that are present on site. The SCCIC search identified 63 historic built environment resources previously identified within the 0.5-mile radius. A copy of the records search results is included in Appendix C-2.

Project Site

The SCCIC search did not identify any archaeological sites within the Project site but did identify three historic built environmental resources in the Project site, as shown in Table 3.2-1, below.

**TABLE 3.2-1
PREVIOUSLY RECORDED HISTORICAL RESOURCES ON THE PROJECT SITE**

Primary No	Resource Name/Address	Resource Type	Year Built	Year Recorded	Historic Status (NRHP, CRHR, Local)
P-19-183400	Pacific Electric Railroad Garage/465 S. Arroyo Parkway	Building	1923, 2007	1986	Potentially Local eligible
P-19-183401	Market Basket Warehouse/ 501-503 S. Arroyo Parkway	Building	1940	1989	Local eligible
P-19-183402	Lewis Iron Building/ 523 S. Arroyo Parkway	Building	1922	1989	Local eligible

Source: SCCIC 2020 and PaleoWest 2022.

Preliminary desktop review of the resources identified within the Project site confirmed that both 501 South Arroyo Parkway and 523 South Arroyo Parkway appear to be extant (e.g., remain present on the site). These properties were previously recommended as eligible for the local register and are, therefore, considered historical resources for the purposes of CEQA. The former Pacific Electric Railroad Garage, which was also previously recommended eligible for the Local Register, appears to be partially extant. The building was integrated into the existing commercial building occupied by Whole Foods Market. Currently, the east and north facades of this building remain, while the remainder of the building was removed and replaced with new construction in 2007.

Project Vicinity

In addition to the resources located within the Project site, multiple historical resources were identified in the records in the surrounding vicinity. For the purposes of the Historical Resources Assessment, and the potential analysis of the Project and its indirect impact to the setting and adjacent and nearby historical resources, a separate overlay was outlined to identify those resources that have the potential to be impacted. Referred to herein as the "Project vicinity," this area was delineated to account for potential indirect impacts, such as visual or atmospheric alterations, resulting from the Project.

The Project vicinity is centered around the Project site, which corresponds with the entire subject block fronting South Arroyo Parkway to the east and is bounded by East Bellevue Drive to the north, East California Boulevard to the south, and the Los Angeles Metropolitan Transportation Authority (Metro) light rail alignment to the rear (i.e., west). The boundaries of the Project vicinity extend approximately one city block in each direction to align with East Del Mar Boulevard to the north, Edmondson Alley to the west, Pico Street to the south, and South Marengo Avenue to the east. Within the Project vicinity, nine historic resources were identified, including seven buildings and two historic districts; one historic district is fully within the Project vicinity whereas the other is only partially within the delineated area.

Table 3.2-2 below outlines those previously recorded historical resources located within the Project vicinity.

**TABLE 3.2-2
PREVIOUSLY RECORDED HISTORICAL RESOURCES
IN THE PROJECT VICINITY**

Primary Number	Resource Name/Address	Resource Type	Year Built	Year Recorded	Historic Status (NRHP, CRHR, Local)
P-19-180051	The Home Laundry	Building	1922	1987	NRHP-listed, CRHR-listed, Local-listed
P-19-180068	S. Marengo Historic District	Historic District	1901-1916	1981	NRHP-listed, CRHR-listed, Local-listed
P-19-180069	Don Carlos Court/ 374-386 S. Marengo Ave	Building	1927	1983	NRHP-listed, CRHR-listed, Local-listed
P-19-180070	Evanston Inn/ 385-395 S. Marengo Ave	Building	1897	1981	NRHP-listed, CRHR-listed, Local-listed
P-19-180680	Bryan Court, Adams Court/ 427 S. Marengo	Historic District	1916	1981	NRHP-listed, CRHR-listed, Local-listed
P-19-183343	George S. Hunt Studio & Shop Building/ 161 E. California Blvd.	Building	1927	1991, 2000	Local eligible
P-19-183344	Wallace Neff Office/ 180 E. California Blvd.	Building	1927	1991, 2011	NRHP eligible, Local-listed
P-19-183346	Raymond Flowers/ 62 E. California Blvd.	Building	1933	1991, 2004	NRHP eligible, Local eligible
P-19-183399	Cornet Building/ 411 S. Arroyo Parkway	Building	1945	1989, 2012	Potentially eligible for NRHP, CRHR, Local (needs re-evaluation)
P-19-183403	Bryan's Cleaners/ 544 S. Arroyo Parkway	Building	1938	1986	Local eligible
P-19-183407	Pasadena Humane Society/ 361 S. Raymond Ave	Building	1929	1989	NRHP-listed, CRHR-listed, Local-listed
P-19-183408	Royal Laundry, Milus Textile Service/ 443 S. Raymond Ave	Building	1927	1991, 2000, 2007	NRHP-listed, CRHR-listed, Local-listed
LD17 (City #)	Marengo-Pico Landmark District	Historic District	1912-1927	2008, 2011	Local-listed
Source: SCCIC 2020 and PaleoWest 2022					

Additional Sources

In addition to the records search, general contextual and site-specific research was conducted for the Project site and the surrounding area. Additional sources consulted include the NRHP, the Office of Historic Preservation Directory of Properties in the Historic Property Data File, Los Angeles County Assessor files, historical newspapers databases, historic Sanborn Fire Insurance Maps, Los Angeles Public Library databases, newspaper.com, ancestry.com, Pasadena city directories, and the City's CHRID system.

Historical maps consulted include the Los Angeles (USGS 1894, 1900), Altadena (USGS 1928), and Pasadena (USGS 1953, 1966, 1972, 1988, 1955) 7.5-minute USGS quadrangles. The 1894 and 1900 maps depicted the Project site as thoroughly built out, but no extant buildings within the Project site were depicted. The 1928 map showed two buildings within the Project site that roughly correspond with 495 South Arroyo Parkway and 501 South Arroyo Parkway. A review of available Sanborn Fire Insurance Maps from 1931 through 1951 was also conducted.

Native American Heritage Commission

Psomas submitted a request to the Native American Heritage Commission (NAHC) for a Sacred Lands File search on July 10, 2020. Results were received on July 15, 2020. The result of the Sacred Lands File (SLF) check conducted by the NAHC was positive for sacred places or objects with cultural value to a California Native American tribe. The NAHC recommended contacting the Gabrieleno Band of Mission Indians – Kizh Nation for more information. The Sacred Lands File results summary from the NAHC is presented in Appendix C-2. The results of Native American consultation pursuant to Assembly Bill 52 is presented in Section 3.10, Tribal Cultural Resources.

Paleontological Resources

Natural History Museum Los Angeles County

Psomas submitted a request to the NHM for a paleontological resource record search on December 16, 2020. Results were received on December 25, 2020. The results of the paleontological resources record search were negative for fossil localities within the Project site; however, the museum did identify several localities nearby from the same sedimentary deposits that occur in the Project site, either at the surface or at depth. These include mastodon (*Mammut*), Horse (*Equus*), Birds (*Aves*) from the Pleistocene Epoch, and several unidentifiable invertebrate specimens from the Pliocene Epoch. The records search results summary from the NHM is presented in Appendix C-3.

3.2.2 RELEVANT CULTURAL RESOURCE REGULATIONS

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended, promotes the preservation, enhancement, and productive use of historic resources. The NHPA established the Advisory Council on Historic Preservation (ACHP) and provided procedures for the ACHP and federal agencies in promoting historic preservation. Properties of traditional religious and cultural importance to Native Americans are protected under Section 101(d)(6)(A) of the NHPA.

Section 106 of the NHPA requires that federal actions and the use of federal funds take into account their potential effects on historic properties or those listed in or eligible for listing in the National Register of Historic Places (NRHP, National Register). Under Section 106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce the impacts to an acceptable level.

National Register of Historic Places

Authorized by the NHPA, the U.S. Department of the Interior National Park Service's NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. The NRHP is the official list of the nation's historic places worthy of preservation. Listing on the National Register places no

obligations on private property owners. It places no restrictions on the use, treatment, transfer, or disposition of private property. Listing on the NRHP does, however, incentivize preservation. Property owners can become eligible to receive federal preservation grants and federal tax credits; they may utilize alternative methods of preservation in compliance with building code provisions. For a resource to qualify for listing on the NRHP, the quality of significance in American history, architecture, archaeology, engineering, and culture must be present in districts, sites, buildings, structures, and objects that possess integrity and:

- A. are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. are associated with the lives of persons significant in our past; or
- C. embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. have yielded or may be likely to yield information important in prehistory or history.

Integrity

To be eligible for listing in the NRHP, a property must retain sufficient integrity to convey its significance. The NRHP publication *How to Apply the National Register Criteria for Evaluation* (National Register Bulletin 15) establishes how to evaluate the integrity of a property: "Integrity is the ability of a property to convey its significance". The evaluation of integrity must be grounded in an understanding of a property's physical features and how they relate to the concept of integrity. Determining which of these aspects are most important to a property requires knowing why, where, and when a property is significant. To retain historic integrity, a property must possess several, and usually most, aspects of integrity:

1. **Location** is the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** is the physical environment of a historic property and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features can be either natural or man-made, including vegetation, paths, fences, and relationships between other features or open space.
4. **Materials** are the physical elements that were combined or deposited during a particular period or time and in a particular pattern or configuration to form a historic property.
5. **Workmanship** is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory and can be applied to the property as a whole or to individual components.
6. **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, when taken together, convey the property's historic character.

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7. **Association** is the direct link between the important historic event or person and a historic property.

Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation

The *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, and Reconstructing Historic Buildings* or the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (Weeks and Grimmer 1995) (both referred to as the SOI Standards were codified in 1995 (36 *Code of Federal Regulations* [CFR] Part 68) to establish professional standards that apply to all proposed development grant-in-aid projects assisted through the National Historic Preservation Fund and to serve as general guidance for work on any other historic building. The SOI Standards apply to historic properties of all periods, styles, types, materials, and sizes. The ten Standards for Rehabilitation are:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

State

California Environmental Quality Act

The Project is subject to compliance with CEQA, as amended. Specifically, under Public Resources Code Section 201084.1, a “project that may cause a substantial adverse change in the significance of an historical resources is a project that may have a significant effect on the environment.” The first step in the CEQA compliance process in terms of historical resources is to identify any that may be impacted by the project.

“Historical resource” is a term with a defined statutory meaning (Public Resources Code Section 21084.1). The determination of significant impacts on historical and archaeological resources is described in Sections 15064.5(a) and 15064.5(b) of the State CEQA Guidelines. Section 15064.5(a) states that historical resources include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the [CRHR] (Public Resources Code Section 5024.1).
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the [CRHR] (Public Resources Code Section 5024.1).
4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the Public Resources Code), or identified in a historical resources survey (meeting the criteria in Section 5024.1[g] of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Section 5020.1(j) or 5024.1.

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance based on established criteria. CEQA states that if a project will have a significant impact on important cultural resources, deemed “historically significant,” then project alternatives and mitigation measures must be considered.

California Register of Historical Resources

The CRHR established a list of properties that are to be protected from substantial adverse change (Public Resources Code Section 5024.1). A historical resource may be listed in the CRHR if it exhibits significance under one or more of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.

2. It is associated with the lives of persons important in California's past.
3. It 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 value.
4. It has yielded or is likely to yield information important in prehistory or history.

In addition to exhibiting significance under one or more of the above criteria, a resource must also retain sufficient historical integrity to convey its significance. Historical integrity is the physical aspects of a resource related to its historic character. Integrity is evaluated through seven aspects: location, design, setting, materials, workmanship, feeling, and association.

The CRHR includes properties that are listed or have been formally determined to be eligible for listing in the NRHP, State Historical Landmarks, and eligible Points of Historical Interest. Other resources require nomination for inclusion in the CRHR. These may include:

- resources contributing to the significance of a local historic district,
- individual historical resources,
- historical resources identified in historic resource surveys conducted in accordance with State Historic Preservation Office procedures,
- historic resources or districts designated under a local ordinance consistent with Commission procedures, and
- local landmarks or historic properties designated under local ordinance.

California Historical Building Code

The California State Historical Building Code (CHBC) (*California Code of Regulations*, Title 24, Part 8) is intended to save California's architectural heritage by recognizing the unique construction issues inherent in maintaining and adaptively reusing historic buildings. The CHBC's standards and regulations facilitate the rehabilitation or change of occupancy so as to preserve their original or restored elements and features; to encourage energy conservation and a cost-effective approach to preservation; and to provide for reasonable safety from fire, seismic forces, or other hazards for occupants and users of such buildings, structures, and properties and to provide reasonable availability and usability by the physically disabled. The 2019 triennial edition of the CHBC, effective January 1, 2020, is the currently adopted code. The City has adopted the CHBC by reference (Section 14.04.010 of the Pasadena Municipal Code [PMC]) and amended in Section 14.04.258 by adding the following: "4. The use of wood on the exterior side of exterior walls shall be prohibited in the Extreme, high and moderate fire hazard severity zones as identified by the Pasadena Fire Department".

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

Sections 7050.5, 7051, and 7054 of the *California Health and Safety Code* collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the *California Public Resources Code* [PRC]). These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the *California Health and Safety Code* specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are

found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code (Section 5097.98)

Section 5097.98 of the PRC states that, if remains are determined by the Coroner to be of Native American origin, the Coroner must notify the NAHC within 24 hours. When the NAHC receives this notification from a County Coroner, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land or his or her authorized representative, inspect the site of the remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. This regulation also requires that, upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations and all reasonable options regarding their preferences for treatment. This section of the PRC has been incorporated into Section 15064.5(e) of the State CEQA Guidelines.

City

Mills Act

The Mills Act (Sections 50280 et. seq. of the California Government Code) grants participating local agencies (cities and counties) the authority to contract with the owners of qualified historical properties, pursuant to the CHBC (discussed above), who actively participate in the rehabilitation, restoration, and/or maintenance their historic property while receiving property tax relief. While State law enacted the Mills Act, the program is administered by local governments, which establish their own criteria and determine how many contracts to allow in their jurisdiction.

The City of Pasadena adopted the “Historic Property Contract Program” to establish the procedures and guidelines to receive financial incentives for designating, rehabilitating, or protecting historic buildings.

City of Pasadena Historic Preservation Ordinance

The City of Pasadena has established an historic preservation program to promote “the identification, evaluation, rehabilitation, adaptive use, and restoration of historic structures.” The criteria for the designation of historic monuments, landmarks, historic signs, landmark trees, or landmark districts are applied “according to applicable National Register of Historic Places Bulletins for evaluating historic properties”. These criteria are excerpted, below, from Section 17.62.040 of the PMC.

Historic Monuments

A historic monument shall include all historic resources previously designated as historic treasures before adoption of [Zoning Code Chapter 17.62] in 2002, historic resources that are listed in the National Register at the State-wide or federal level of significance (including National Historic Landmarks) and any historic resource that is significant at a regional, State, or federal

level, and is an exemplary representation of a particular type of historic resource and meets one or more of the following criteria:

- a) It is associated with events that have made a significant contribution to the broad patterns of the history of the region, State, or nation.
- b) It is associated with the lives of persons who are significant in the history of the region, State, or nation.
- c) It is exceptional in the embodiment of the distinctive characteristics of a historic resource property type, period, architectural style, or method of construction, or that is an exceptional representation of the work of an architect, designer, engineer, or builder whose work is significant to the region, State, or nation, or that possesses high artistic values that are of regional, State-wide, or national significance.
- d) It has yielded, or may be likely to yield, information important in prehistory or history of the region, State, or nation.

A historic monument designation may include significant public or semi-public interior spaces and features.

Landmarks

A landmark shall include all properties previously designated a landmark before adoption of [Zoning code Chapter 17.62] in 2002 and any historic resource that is of a local level of significance and meets one or more of the criteria listed below.

A landmark may be the best representation in the City of a type of historic resource or it may be one of several historic resources in the City that have common architectural attributes that represent a particular type of historic resource. A landmark shall meet one or more of the following criteria:

- a) It is associated with events that have made a significant contribution to the broad patterns of the history of the City.
- b) It is associated with the lives of persons who are significant in the history of the City.
- c) It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the City or possesses artistic values of significance to the City.
- d) It has yielded, or may be likely to yield, information important locally in prehistory or history.

Historic Signs

A historic sign shall include all signs in the sign inventory as of the date of adoption of the Zoning Code and any sign subsequently designated historically significant by the Historic Preservation Commission that possesses high artistic values. A historic sign shall meet one or more of the following criteria:

- a) The sign is exemplary of technology, craftsmanship or design of the period when it was constructed, uses historic sign materials and means of illumination, and is not significantly altered from its historic period. Historic sign materials shall include metal or wood facings, or paint directly on the façade of a building. Historic means of illumination shall include incandescent light fixtures or neon tubing on the exterior of the sign. If the sign has been altered, it must be restorable to its historic function and appearance.

- b) The sign is integrated with the architecture of the building.
- c) A sign not meeting criteria a or b above may be considered for inclusion in the inventory if it demonstrates extraordinary aesthetic quality, creativity, or innovation.

All other regulations relating to signs shall comply with Chapter 17.48 (Signs).

Landmark Trees

A tree shall qualify to be of historic or cultural significance and of importance to the community if it meets any one of the following criteria:

1. It is one of the largest or oldest trees of the species located in the City;
2. It has historical significance due to an association with a historic event, person, site, street, or structure; or
3. It is a defining landmark or significant outstanding feature of a neighborhood.

Landmark Districts

A landmark district shall include all landmark districts previously designated before adoption of this Chapter and any grouping of contiguous properties that also meet the following criteria:

- a) Within its boundaries, a minimum of 60 percent of the properties qualify as contributing; and
- b) The grouping represents a significant and distinguishable entity of Citywide importance and one or more of a defined historic, cultural, development and/or architectural context(s) (e.g., 1991 Citywide historic context, as amended, historic context prepared in an intensive level survey or historic context prepared specifically for the nominated landmark district).

When considering applications to designate a landmark district, the Historic Preservation Commission shall use the National Register of Historic Places Bulletin #21: "Defining Boundaries for National Register Properties."

3.2.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse cultural and paleontological resources impact if it would:

- Threshold 3.2a:** Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Threshold 3.2b:** Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Threshold 3.2c:** Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

The Initial Study (provided in Appendix A-1) concluded the following threshold related to cultural resources was determined to result in less than significant impacts and was not carried forward into the Draft EIR for further analysis:

- Would the project result disturb any human remains, including those interred outside of formal cemeteries?

3.2.4 METHODOLOGY

An Historical Resource Assessment for the Project site was prepared by PaleoWest and dated January 14, 2022 (Appendix C-1). As discussed previously, Psomas conducted an archaeological records search on July 24, 2020 at the SCCIC at California State University, Fullerton; submitted a request to the NAHC for a Sacred Lands File search on July 10, 2020, the results were received on July 15, 2020 (Appendix C-2); submitted a request to the NHM for a paleontological resource record search on December 16, 2020, the results were received on December 25, 2020 (Appendix C-3); and initiated Native American consultation consistent with AB 52 on May 28, 2020. The records search results were reviewed by a Registered Professional Archaeologist and combined with the findings of the Historical Resource Assessment, considered in the analysis of potential impacts to historic, archaeological, and paleontological resources.

3.2.5 ENVIRONMENTAL IMPACTS

Threshold 3.2a: Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Project

The buildings at 491, 495, 499, 503, and 541 South Arroyo Parkway were evaluated for historical significance by applying the criteria of the CRHR and the Local Register using data gathered during the pedestrian survey and information acquired through historical research. PaleoWest recommends that the buildings at 491, 495, 499, 503, and 541 South Arroyo Parkway are not eligible for inclusion in the CRHR or the Local Register. PaleoWest concurs with the previous recommendation that the buildings at 501 and 523 South Arroyo Parkway are eligible for the Local Register and observed no changes that would compromise that assessment. Further, PaleoWest recommends that the buildings at 501 and 523 South Arroyo Parkway are locally eligible for the CRHR under Criterion C. Therefore, both buildings at 501 South Arroyo Parkway and 523 South Arroyo Parkway are historical resources for the purposes of CEQA (PaleoWest 2022, Appendix C-1).

Collectively, the buildings located at 491, 495, 499, 501, 503, 523, and 541 South Arroyo Parkway (referred to herein as the South Arroyo Parkway Industrial District) were evaluated to determine if they represent a potential historic district due to the timing of their construction and original development of industrial uses along a railroad and near downtown Pasadena. PaleoWest's analysis of the South Arroyo Parkway Industrial District included determining if it is locally eligible for the CRHR under Criterion A and as a City Landmark District. The analysis found that the district does not retain sufficient integrity to convey its historical significance. The buildings have been modified over time to accommodate their current use as commercial buildings. These modifications have led to a loss of historic material and have fundamentally changed the use and design of the buildings. Buildings that were constructed during the period of significance of the potential district, have been substantially altered over time, fragmenting the association of the extant buildings with their interrelated historical use, and compromising the integrity of setting, feeling, and association. Therefore, the South Arroyo Parkway Industrial District is not a historical resource for the purposes of CEQA (PaleoWest 2022, Appendix C-1).

As determined in the Historic Resources Assessment, the Project site contains two historic resources: the buildings at 501 and 523 South Arroyo Parkway. Based on available plans, the Project would not involve the physical destruction of the buildings at 501 and 523 South Arroyo Parkway, nor would it result in any significant internal or external physical modifications that would compromise the historic integrity of the buildings. The Project would change the setting, but those changes would not physically alter the buildings and are not substantial enough to compromise the overall historic integrity or obstruct the view of the buildings from the public right-of-way. The surrounding area has been modified over time by new construction and modifications to existing buildings, including the construction of multi-story buildings, which has resulted in the disruption of the historical setting. Therefore, the Project would not result in a substantive adverse change to the historic integrity of the buildings at 501 and 523 South Arroyo Parkway.

While the current Project description would not result in a substantive adverse change to the historic integrity of the buildings at 501 and 523 South Arroyo Parkway, the potential for future internal and external modifications to them does exist in the form of tenant improvements. However, the City's existing design review process, established in Zoning Code Section 17.61.030, requires a finding of consistency with the SOI's Standards to approve any proposed exterior changes to historical buildings within the Central District. Therefore, mitigation measure (MM) CUL-1 requires that the Project Applicant engage with a licensed architect and/or engineer that meets the SOI's Professional Qualifications Standards to develop a series of protection interventions and protocols that would preserve the two historical resources on the Project site – 501 and 523 South Arroyo Parkway – during construction activities. These protocols shall take into consideration the protection of and security of both resources, particularly the preservation of the character-defining features through the installation of physical protective barriers around each resource and the creation of site protocols that will eliminate the potential for physical damage resulting from impacts associated with construction and transport of equipment.

The potential for vibration to cause damage to the buildings at 501 and 523 South Arroyo Parkway is addressed in Section 3.7, Noise, of this Draft EIR. The most damaging sources of vibrations include blasting and pile driving. The Project's construction would not include blasting or pile driving; therefore, vibrations from these particularly damaging activities would not impact the buildings at 501 and 523 South Arroyo Parkway. However, there is potential for some construction equipment that would be used on the site to cause cosmetic damage to these buildings because of vibration. Implementation of MM NOI-1, which outlines setbacks for operation of vibration-causing construction equipment, would reduce the potential for cosmetic damage to these two buildings to a less than significant level.

Implementation of MM CUL-1 would ensure that potential tenant improvements associated with this Project do not result in a significant impact on the identified historical buildings. The Project is not expected to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Project with Building A Residential/Commercial

The analysis of historical resources for the Project with Building A Residential/Commercial would be the same as that of the Project, as both buildings at 501 South Arroyo Parkway and 523 South Arroyo Parkway are planned to be preserved and integrated into the site development in the same way as the Project. Therefore, the Project with Building A Residential/Commercial would not involve the physical destruction of 501 South Arroyo Parkway and 523 South Arroyo Parkway, nor would it result any significant physical modifications that would comprise the historic integrity of the buildings. Through implementation of MM CUL-1, tenant improvements to 501 and 523 South Arroyo Parkway would result in less than significant impacts to a documented historical resource. As with the Project, the Project with Building A Residential/Commercial would not compromise the overall historic integrity of, nor obstruct the public view of, the historic buildings.

As discussed for the Project, the potential for vibration to cause damage to the buildings at 501 and 523 South Arroyo Parkway is addressed in Section 3.7, Noise, of this Draft EIR. Implementation of MM NOI-1, which outlines setbacks for operation of vibration-causing construction equipment, would reduce the potential for cosmetic damage to these two buildings to a less than significant level. Therefore, with implementation of MMs CUL-1 and NOI-1, the Project with Building A Residential/Commercial is not expected to cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Threshold 3.2b: Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Project

There are no known archaeological resources within the Project site; additionally, no known archaeological resources are within ½-mile of the Project site (Appendix C-2). However, the Project site is located within a region of California that has evidence for human occupation dating back several thousand years as noted by the positive SLF results for sacred sites located near the Project site. Thus, archaeological resources have the potential to be present in native sediments beneath the Project site. Therefore, the potential to encounter previously unidentified archaeological resources is a potentially significant impact. This impact would be reduced to a less than significant level with implementation of MM CUL-2, which requires attendance by a qualified archaeologist at the pre-grade conference and identifies actions to take in the event that cultural resources (i.e., prehistoric sites, historic sites, and/or isolated artifacts) are discovered.

Project with Building A Residential/Commercial

The Project with Building A Residential/Commercial would have one less level of subterranean parking spanning both proposed buildings. However, the possibility of unknown, intact archaeological resources being present in native sediments beneath the Project site remains the same as the Project. Therefore, with implementation of MM CUL-2, there would be a less than significant impact related to encountering unknown archaeological resources.

Threshold 3.2c: Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Project

No unique geologic features are known to exist, and no fossils have been documented on the Project site. The City's General Plan EIR states that "Although Quaternary Old Alluvial Deposits [such as those beneath the site] in general have the potential to yield fossils, the paleontological sensitivity in these areas of the City is considered low due to its proximity to the mountains to the north. Since the older Quaternary alluvial sediments are close to the sediment source, the uppermost layers of these deposits are likely too coarse-grained to preserve fossils. However, abundant fossils occur in the Topanga Formation. The Topanga Formation is in the southwesternmost portions of the City and near the South Fair Oaks specific plan area. Grading and excavations deeper than six feet into the Topanga Formation have the potential to impact significant fossils" (Pasadena 2015). Accordingly, the City requires monitoring for projects that could excavate within the Topanga Formation; however, the Project would not involve excavation in the Topanga Formation. There would be less than significant impacts related to paleontological resources, and no mitigation is required.

Project with Building A Residential/Commercial

The Project with Building A Residential/Commercial would have one less level of subterranean parking spanning both proposed buildings. As discussed for the Project, the Project with Building A Residential/Commercial would not involve excavation in the Topanga Formation, which has potential to yield significant paleontological resources. There would be a less than significant impacts related to encountering unknown archaeological resources, and no mitigation is required.

3.2.6 CUMULATIVE IMPACTS

Project

Although cultural resources are site-specific regarding any given resource (e.g., resources of important cultural value to Native Americans and the history of California), impacts may be considered cumulative simply because they relate to the loss of cultural resources in general over time throughout the region. Historic structures that may be altered or demolished in and near the City could affect the cultural significance of an individual site or the structure, as well as incrementally diminish the City's historical context. As noted above, the buildings at 501 and 523 South Arroyo Parkway are eligible for the Local Register and eligible for the CRHR under Criterion C; however, the Project is not expected to cause a substantial adverse change in the significance of either resource as defined in Section 15064.5 with implementation of MM CUL-1. Compliance with CEQA and the City's Historic Preservation Ordinance would prevent significant adverse impacts on historical resources in the City and avoid a cumulative contribution to the loss of historical resources during development throughout the City pursuant to the General Plan. Implementation of MM NOI-1, which outlines setbacks for operation of vibration-causing construction equipment, would reduce the potential for cosmetic damage to these two buildings to a less than significant level. Therefore, the Project would not result in a cumulatively considerable impact to historical resources.

Regarding archaeological resources, there are no known resources listed or determined eligible for listing on the Project site. Implementation of MM CUL-2, consistent with the City's General Plan, would reduce potential impacts to archaeological resources to a less than significant level. The City requires implementation of this mitigation where there is potential to encounter unknown cultural resources, as appropriate, thereby avoiding a cumulative contribution to the loss of archaeological resources during development throughout the City pursuant to the General Plan. The Project site is not located in the portions of the City considered to be paleontologically sensitive. Therefore, the Project would not result in a cumulatively considerable impact to archaeological and paleontological resources.

Project with Building A Residential/Commercial

The cumulative analysis of the Project with Building A Residential/Commercial would be the same as that of the Project. The Project with Building A Residential/Commercial is not expected to cause a substantial adverse change in the significance of either resource as defined in Section 15064.5 with implementation of MM CUL-1. Compliance with CEQA and the City's Historic Preservation Ordinance would prevent significant adverse impacts on historical resources in the City and avoid a cumulative contribution to the loss of historical resources during development throughout the City pursuant to the General Plan EIR. Implementation of MM NOI-1, which outlines setbacks for operation of vibration-causing construction equipment, would reduce the potential for cosmetic damage to the two buildings to a less than significant level. Therefore, the Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to historical resources.

The more limited excavation associated with one less level of subterranean parking would not reduce the possibility of unknown, intact archaeological resources being present in native sediments beneath the site. The City requires implementation of this mitigation (herein MM CUL-2) where there is potential to encounter unknown cultural resources, as appropriate, thereby avoiding a cumulative contribution to the loss of archaeological resources during development throughout the City pursuant to the General Plan. The site is not located in the portions of the City considered to be paleontologically sensitive. Therefore, the Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to archaeological and paleontological resources.

3.2.7 MITIGATION MEASURES

MM CUL-1 To the satisfaction of the City, the Project Applicant shall engage with a licensed architect and/or engineer that meets the Secretary of the Interior's Professional Qualifications Standards for historic architect to develop a series of protection interventions and protocols that will preserve the two historical resources on the Project site – 501 and 523 South Arroyo Parkway – during all construction activities in, on, and near these two buildings. These measures shall take into consideration the protection of and security of both resources, particularly the preservation of the character-defining features through the installation of physical protective barriers around each resource and the creation of site protocols that will eliminate the potential for physical damage resulting from impacts with construction and transport equipment.

To ensure the protection of these resources and their character-defining features, all protective barriers (which shall be installed prior to the initiation of any construction activity) and protocols shall be compliant with the *Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (Weeks and Grimmer 1995) (Standards) and be subject to review and approval by the City planning staff.

Site protocols for protecting the historical resources shall outline issues related to site access and navigation by contractors and construction personnel to reduce the potential for any inadvertent accidents between equipment and the two on-site historical resources. Additionally, a series of emergency measures shall be developed that outlined specific step-by-step processes in the event that an accident involves one of the historical resources. This will likely include the following:

- 1) Stop-work protocols after an accident involving a historical resource occurs,
- 2) Notification procedures and identification key contacts,
- 3) Identification of qualified historic preservation professionals to investigate the historical resources following the determination that the area is safe,
- 4) Thorough conditions assessment of the resource by the qualified consultant to ascertain the level and extent of the damage, and
- 5) Preparation of a historical resource treatment plan to stabilize the historical resource and address the damage, which will be submitted to City staff for review and approval prior to completing the work and resumption of construction activities.

Additionally, protocols shall include regular on-site monitoring during construction activities by historic preservation consultant, either a SOI Qualified historic architect or architectural historian. The historic preservation consultant shall document the existing conditions of each resource prior to the initiation of any construction activity and prior to installation of the protective barriers and implementation of the protection protocols. This documentation phase will include high resolution digital photographs of each facade, as well as details of character-defining features for each resource. During construction, the historic preservation consultant shall prepare field report memoranda to the City confirming that the Standards compliant protection barriers are installed in accordance with the Standards, and that agreed upon protocols are being followed throughout the course of the Project. These memoranda will be submitted to City staff for their records and review. A final report outlining the conditions of the historical resources prior, during, and following the Project's construction shall be issued to the City for approval following construction activities and prior to the issuance of a Certificate of Occupancy.

MM CUL-2 If cultural resources are discovered during construction of land development projects in Pasadena that may be eligible for listing in the California Register for Historic Resources, all ground disturbing activities in the immediate vicinity of the find shall be halted until the find is evaluated by a Registered Professional Archaeologist. If testing determines that significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; and provide a comprehensive final report including site record to the City and the South-Central Coastal Information Center at California State University Fullerton. No further grading shall occur in the area of the discovery until Planning Department approves the report.

3.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The mitigation measures identified above would reduce potential impacts associated with historic and archaeological resources to a less than significant level. There would be less than significant impacts related to paleontological resources, and no mitigation is required. Therefore, no significant and unavoidable impacts relating to cultural resources have been identified.

3.2.9 SUMMARY OF ANALYSIS

Project

Based on the Historical Resource Assessment prepared for the Project site, the buildings at 501 and 523 South Arroyo Parkway are historical resources for the purposes of CEQA (PaleoWest 2022, Appendix C-1). While the Project's tenant improvements do not anticipate demolishing, moving, or making major alterations to these historic resources, these plans remain conceptual and have not yet been finalized. Therefore, there may be a potential for impact and MM CUL-1 would be required to ensure that any alterations to these two structures meet the SOI's Standards. The potential for vibration to cause damage to the buildings at 501 and 523 South Arroyo Parkway is addressed in Section 3.7, Noise, of this Draft EIR. Implementation of MM NOI-1, which outlines setbacks for operation of vibration-causing construction equipment, would reduce the potential for cosmetic damage to these two buildings to a less than significant level. With implementation of MMs CUL-1 and NOI-1, there would be a less than significant impact to historical resources.

There are no known archaeological or paleontological resources on the Project site. However, based on the results on the cultural resources records searches conducted for the Project site

and vicinity (Appendices C-2), unknown archaeological resources have potential to be present in native sediments beneath the Project site. Therefore, MM CUL-2, which is consistent with the City's General Plan EIR, would be required. With implementation of MM CUL-2, the Project would result in less than significant impacts related to archaeological resources. The Project site is not located in the portions of the City considered to be paleontologically sensitive. Therefore, there would be less than significant impacts related to paleontological resources, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of cultural resources for the Project with Building A Residential/Commercial would be the same as that of the Project regarding the documented historic resources (501 and 523 South Arroyo Parkway). The more limited excavation associated with one less level of subterranean parking would not reduce the possibility of unknown, intact archaeological resources being present in native sediments beneath the site. With implementation of MMs CUL-1, CUL-2, and NOI-1, the Project with Building A Residential/Commercial would result in less than significant impacts related to historic and archaeological resources. The site is not located in the portions of the City considered to be paleontologically sensitive. Therefore, there would be less than significant impacts related to paleontological resources, and no mitigation is required.

3.2.10 REFERENCES

- PaleoWest, LLC. (PaleoWest). 2022 (January 14). *Historical Resource Assessment Report of the Affinity Project, Pasadena, Los Angeles County, California*. San Diego, CA: PaleoWest. Appendix C-1.
- Pasadena, City of. 2015 (January). *Pasadena General Plan Draft Environmental Impact Report Volume I*. Pasadena, CA: the City. General-Plan_Draft-EIR_2015-01.pdf (cityofpasadena.net).
- Weeks (K.D.) and Grimmer (A.E.). 2017. *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings*. Washington, D.C.: Weeks and Grimmer. The Secretary of the Interior's Standards for the Treatment of Historic Properties With Guidelines For Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings (nps.gov).

3.3 ENERGY

3.3.1 EXISTING CONDITIONS

The Project site consists of five parcels developed with a total of nine commercial buildings with seven businesses with an existing building area of 125,465 square feet (sf). These existing uses consume electricity as well as natural gas for space heating and cooking needs. Depending on when these buildings were built or renovated, they would have complied with the energy efficiency standards that were adopted at that time.

3.3.2 RELEVANT PROGRAMS AND REGULATIONS

Federal

The Office of Energy Efficiency and Renewable Energy's (EERE) mission is to accelerate the research, development, demonstration, and deployment of technologies and solutions to equitably transition America to net-zero greenhouse gas emissions economy-wide by no later than 2050, and ensure the clean energy economy benefits all Americans, creating good paying jobs for the American people—especially workers and communities impacted by the energy transition and those historically underserved by the energy system and overburdened by pollution (EERE 2021).

EERE's work will involves the four principles:

- Building the clean energy economy in a way that benefits all Americans. We must address environmental injustices that disproportionately affect communities of color, low-income communities, and indigenous communities.
- Fostering a diverse science, technology, engineering, and math (STEM) workforce. We need to increase awareness of clean energy job opportunities at minority-serving institutions and ensure that organizations receiving EERE funding are thinking through diversity and equity in their own work.
- Developing more robust workforce training opportunities to build a pipeline for permanent, good-paying jobs for the clean energy workforce.
- Working closely and learning from state and local governments.

State

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations* [CCR]) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The currently applicable standards are the 2019 Standards, effective January 1, 2020. The 2019 standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources (California Energy Commission [CEC] 2021). The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas and electricity use produce GHG emissions. The goal of the standards is to reduce energy use in new homes by more than 50 percent. The 2019 standards require that there is sufficient on-site electricity generation to meet the annual electricity usage for low rise residential buildings. A 30 percent

reduction in energy uses is anticipated for nonresidential uses. The requirement for low-rise residential buildings to develop onsite electricity generation is consistent with the goal to develop renewable sources of energy.

The CEC adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) “Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy” and (2) “Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its greenhouse gas emissions to 1990 levels by 2020”. Additionally, it has been California policy that all new residential buildings will be zero net energy (ZNE) by 2020 and new commercial buildings will be ZNE by 2030, as described in the 2008 California Public Utilities Commission (CPUC) long-term energy efficiency strategic plan. In 2013, the CEC, in coordination with the CPUC, commenced a process to update the Title 24 energy efficiency standards and, the 2016 Title 24 Energy Efficiency Standards establish building design and construction requirements that move closer to achieving California’s ZNE goals. The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas use and electricity generation result in GHG emissions.

California Green Building Standards Code

The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California). The development of the CALGreen Code is intended to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the following construction practices: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental quality. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

Senate Bills 1078, 107, and SBX1-2 (Renewable Portfolio Standards)

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and again in 2011 under SBX1-2, California’s Renewable Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. Initially, the RPS provisions applied to investor-owned utilities, community choice aggregators, and electric service providers. SBX1-2 added, for the first time, publicly owned utilities to the entities subject to RPS.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 requires renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers and 100 percent of electricity procured to serve state agencies by December 31, 2045. This policy requires the transition to zero-carbon electric systems that do not cause contributions to increase of GHG emissions elsewhere in the western electricity grid (CEC 2021b). SB 100 also creates new standards for the RPS goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030.

City Green Building Ordinance

The City green building ordinance is Municipal Code Sections 14.04.500 through 14.04-511 (as amended). The ordinance incorporates the 2019 CALGreen and 2019 Building and Energy

Efficiency Standards. Under the ordinance, nonresidential development that is over 25,000 square feet would be subject to the mandatory Tier 1 CALGreen standards, and nonresidential development over 50,000 square feet would be subject to the mandatory Tier 2 CALGreen standards (Section 14.04.504).

City of Pasadena Green City Action Plan

The City of Pasadena developed and adopted the Green City Action Plan on September 18, 2006 (Pasadena 2006). The plan, which contains various actions and goals applicable on a local level, was prepared to create a more sustainable City capable of meeting growing demand and reducing impacts to natural resources. There are seven focus areas within the plan: (1) Energy, (2) Waste Reduction, (3) Urban Design, (4) Urban Nature, (5) Transportation, (6) Environmental Health, and (7) Water. Each of these focus areas contains actions and goals.

A partial list of these actions and goals related to energy that are applicable to the Project and Project with Building A Residential/Commercial is shown below:

- **Action 2:** Reduce the city's peak electric load by 10 percent within seven years through energy efficiency, shifting the timing of energy demands and conservation measures.
- **Action 8:** Advance higher density, mixed use, walkable, bikeable, and disabled accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.
- **Action 13:** Expand affordable public transportation coverage to within ½ kilometer of all city residents in ten years.
- **Action 15:** Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by 10 percent in seven years.

3.3.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse energy impact if it would:

Threshold 3.3a: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; and/or

Threshold 3.3b: Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

3.3.4 METHODOLOGY

Energy consumption was calculated for the construction and operations phases of the Project and the Project with Building A Residential/Commercial. Fuel consumption from construction worker, vendor, and delivery/haul trucks as well as operations phase vehicle trips were calculated using the trip rates and distances provided in the CalEEMod construction output files, as provided in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data, of this Draft EIR. Operations phase trip generation and trip lengths were provided within the City's traffic analysis, provided in Appendix G-1, Transportation Impact Analysis/CEQA Evaluation for Project, and Appendix G-2, Transportation Impact Analysis/CEQA Evaluation for Project with Building A Residential/Commercial. Total vehicle miles traveled (VMT) were then calculated for each type of construction and operations-related trips and divided by the corresponding miles per gallon factor using CARB's Emissions FACTor (EMFAC) 2017 model. EMFAC provides the total annual VMT

and fuel consumed for each vehicle type. Utility-related energy consumption was estimated and provided by the Applicant. The inputs and data for the modeling are provided in Appendix D, Energy Modeling Data.

3.3.5 ENVIRONMENTAL IMPACTS

Threshold 3.3a: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project

Construction

Construction of the Project would require the use of construction equipment for grading and building activities; all off-road construction equipment is assumed to use diesel fuel. Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. During construction, transportation energy would be used for the transport and use of construction equipment, from delivery vehicles and haul trucks, and from construction employee vehicles that would use gasoline and/or diesel fuel. The use of these energy resources fluctuates according to the phase of construction and would be temporary. Table 3.3-1, Construction-Related Energy Use for the Project, quantifies anticipated energy use during construction activities of the Project. The use of these energy resources fluctuates according to the phase of construction and would be temporary.

**TABLE 3.3-1
CONSTRUCTION-RELATED ENERGY USE FOR THE PROJECT**

Source	Gasoline Fuel (gallons)	Diesel Fuel (gallons)
Off-road Construction Equipment	59,671	71,430
Worker commute	57,735	274
Vendors	1,253	21
On-road haul	22	18,937
Total	118,682	90,662
Source: Energy data can be found in Appendix D, Energy Modeling Data.		

Construction energy use could be considered wasteful, inefficient, or unnecessary if construction equipment is not well-maintained such that its energy efficiency is substantially lower than newer equipment; if equipment idles even when not in use; if construction trips utilize longer routes than necessary; or if excess electricity and water¹ are used during construction activities. Pursuant to the Title 13, Section 2485 of *California Code of Regulations*, all diesel-fueled commercial motor vehicles must not idle for more than five consecutive minutes at any location. Mandatory compliance would reduce fuel use by construction vehicles. Fuel energy consumed during construction would also be temporary in nature, and there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the region or State. Short-term energy usage for construction of the Project would result in long-term energy savings from newly constructed buildings that are compliant with the current Title 24 CALGreen code. As such, energy use associated with construction of the Project would not result in significant impacts related to

¹ Indirect energy use for the extraction, treatment, and conveyance of water.

wasteful, inefficient, or unnecessary consumption of energy resources. There would be a less than significant impact, and no mitigation is required.

Operation

The Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 Energy Efficiency Standards and CALGreen). Development of the Project is required to comply with the latest building energy efficiency standards adopted by the State and the City at the time of Project implementation. Mobile source energy consumption is based on estimated Project-related trip generation forecast of 6,366 daily trips, as provided in the Project Transportation Impact Analysis – Outside of CEQA Analysis (Pasadena DOT 2021a) and the VMT assumptions for the Project's trips (Pasadena DOT 2020; Appendix G-1). The energy use for the Project also includes the anticipated electrical demand, natural gas demand, and mobile trips for the conversion of the two historic buildings to commercial uses, which are assumed to be restaurant for the purposes of this Draft EIR. The estimated energy consumption attributable to the Project as calculated by CalEEMod is shown in Table 3.3-2, Energy Use During Operation of the Project, below.

**TABLE 3.3-2
ENERGY USE DURING OPERATION OF THE PROJECT**

Land Use	Gasoline (gallons/yr)	Diesel (gallons/yr)	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Project Land Uses	211,629	4,226	5,543,466	5,678,570
kBTU: kilo-British thermal units; kWh: kilowatt hour; yr: year Source: Energy data can be found in Appendix D, Energy Modeling Data.				

Adherence to the 2019 Building Energy Efficiency Standards would result in a reduction of energy use as compared to previous energy standards (CEC 2021). The reduction in energy use intensity typically consisted of upgrades to higher efficiency equipment and improved building automation, lighting controls, and sequences of operations. The CEC states that the 2019 energy efficiency standards are projected to result in a 30 percent improvement in energy efficiency over the 2016 standards for nonresidential buildings. Therefore, the new buildings would be more energy efficient than existing buildings that are proposed to be demolished and buildings proximate to the Project site and would be among the most energy-efficient buildings in the City.

Transportation energy use would be associated with daily trips associated with the proposed project. The Project site is within both a High-Quality Transit Area (HQTA) and Transit Priority Area (TPA). HQTAs are areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. TPAs are areas within one-half mile of a major transit stop that is existing or planned. Project employees, visitors and residents of the Project site would be able to use these energy-efficient mass transit options. In addition, consistent with Title 24 requirements, the Project would be required to develop electric vehicle charging infrastructure (6 percent of nonresidential parking spaces) as well as storage and parking for bicycles (5 percent of vehicle parking spaces). This would encourage and support the use of transportation that does not rely on gasoline and diesel fuels.

Because the Project would involve the most energy-efficient buildings required under the 2019 Title 24 Energy Efficiency Standards and would promote energy efficient transportation options by developing within a HQTA and TPA and promoting alternative-fueled vehicles, the Project

would not result in the inefficient, wasteful, or unnecessary consumption of energy. There would be a less than significant impact, no mitigation is required.

Project with Building A Residential/Commercial

Construction

The analysis of construction energy use and efficiency for the Project with Building A Residential/Commercial would be essentially the same as the Project. All construction assumptions for the Project with Building A Residential/Commercial would be consistent with the Project, except that grading for the subterranean garage and other areas for improvement would require 36,802 cy less soil export than the Project (for a total of 147,211 cy of soil export) and 2,685 less truckloads than the Project (for a total of 10,515 truckloads for export). Table 3.3-3, Construction-Related Energy Use for the Project with Building A Residential/Commercial, provides the anticipated energy use during construction activities.

**TABLE 3.3-3
CONSTRUCTION-RELATED ENERGY USE FOR THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Source	Gasoline Fuel (gallons)	Diesel Fuel (gallons)
Off-road Construction Equipment	59,671	71,430
Worker commute	57,016	271
Vendors	1,253	21
On-road haul	17	14,969
Totals	117,958	86,691
Source: Energy data can be found in Appendix D, Energy Modeling Data.		

The Project with Building A Residential/Commercial is anticipated to result in slightly less energy demand during construction than the Project. As with the Project, fuel energy consumed during construction for the Project with Building A Residential/Commercial would also be temporary in nature, and there are no unusual Project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the region or State. Short-term energy usage for construction of the Project with Building A Residential/Commercial would result in long-term energy savings from newly constructed buildings that are compliant with the current Title 24 California Building Code. As such, energy use associated with construction of the Project with Building A Residential/Commercial would not result in significant impacts related wasteful, inefficient, or unnecessary consumption of energy resources. There would be a less than significant impact, and no mitigation is required.

Operations

The Project with Building A Residential/Commercial would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The development of the Project with Building A Residential/Commercial is required to comply with the latest building energy efficiency standards adopted by the State and the City at the time of Project implementation. Mobile source energy demand is based on estimated Project with Building A Residential/Commercial-related trip generation forecast of 2,494 daily trips, as contained in the Transportation Impact Analysis – Outside of CEQA Analysis prepared for the Project with Building A Residential/Commercial (Pasadena DOT 2021b) and incorporates the vehicle VMT

assumptions for the Project with Building A Residential/Commercial's trips (Pasadena DOT 2021c). It should be noted that the energy use also includes the anticipated electrical demand, natural gas demand, and mobile trips for the conversion of the two historic buildings to commercial uses, as with the Project. The estimated energy consumption attributable to the Project with Building A Residential/Commercial as calculated by CalEEMod and provided by the Applicant is shown in Table 3.3-4, Energy Use During Operation of the Project with Building A Residential/Commercial, below.

**TABLE 3.3-4
ENERGY USE DURING OPERATION OF THE PROJECT WITH BUILDING
A RESIDENTIAL/COMMERCIAL**

Land Use	Gasoline (gallons/yr)	Diesel (gallons/yr)	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Project with Building A Residential/Commercial Land Uses	77,747	1,606	4,497,483	5,517,728
kBTU: kilo-British thermal units; kWh: kilowatt hour; yr: year				
Sources: Energy data can be found in Appendix D, Energy Modeling Data.				

The Project with Building A Residential/Commercial would also be required to adhere to the 2019 Building Energy Efficiency Standards which result in an improvement in energy efficiency. Therefore, the new buildings would be more energy efficient than existing proposed to be demolished as well as buildings proximate to the Project Site and would be among the most energy efficient buildings in the City.

The Project with Building A Residential/Commercial would also be located within both a HQTAs and TPA. Employees, visitors, and residents of the Project with Building A Residential/Commercial site would be able to use these energy efficient mass transit options. In addition, the Project would be required to develop electric vehicle charging infrastructure (6 percent of nonresidential parking spaces) as well as storage and parking for bicycles (5 percent of vehicle parking spaces). This would encourage and support the use of transportation that does not rely on gasoline and diesel fuels.

Because the Project with Building A Residential/Commercial would involve the most energy efficient buildings required under the 2019 Title 24 Energy Efficiency Standards and would promote energy efficient transportation options by developing within a HQTAs and TPA as well as promote alternative fueled vehicles, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. There would be a less than significant impact, and no mitigation is required.

Threshold 3.3b: Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Project

As discussed above, strategies and measures have been implemented at the State level with the California's Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings and the CALGreen Code. The Project would be more energy-efficient than the existing buildings in the vicinity of the site, including the buildings to be demolished. The CALGreen Code requires the development of electric vehicle charging infrastructure to promote and support alternatively fueled vehicles and bicycling. The Project would also be consistent with the City's Green City Action Plan, by increasing energy efficiency for buildings, developing higher density, mixed-use, walkable, bikeable, and disabled-accessible neighborhoods which coordinate land use and

transportation. As such, the Project would not conflict with or obstruct the State or the City's goals for energy efficiency and energy efficiency. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of conflict of the Project with Building A Residential/Commercial with plans for renewable energy and energy efficiency would be the same as that of the Project. The Project with Building A Residential/Commercial would result in a lower VMT than the Project; however, both scenarios would be consistent with applicable energy-related plans and regulations. The proposed buildings would be more energy-efficient than the existing buildings in the vicinity of the site and the buildings to be demolished on site. The Project with Building A Residential/Commercial would provide electric vehicle charging infrastructure and provide bicycle parking on-site for its residents, visitors, and employees. The Project with Building A Residential/Commercial would be consistent with the City's Green City Action Plan by increasing energy efficiency for buildings, developing higher density, mixed-use, walkable, bikeable, and disabled-accessible neighborhoods which coordinate land use and transportation. As such, the Project with Building A Residential/Commercial would not conflict with or obstruct the State or the City's goals for energy efficiency. There would be a less than significant impact, and no mitigation is required.

3.3.6 CUMULATIVE IMPACTS

Project

The geographic area for consideration of cumulative impacts is the City. Future development throughout the City would generate additional energy demand and construction and operational fuel energy demand. Future development projects in the City would also need to comply with all applicable local and State energy efficiency and renewable energy regulations. The electrification of the transportation sector is anticipated throughout California and would contribute to reduced fuel energy use related to future development throughout the City. Also, regional (i.e., Southern California Association of Governments) planning documents support a denser land use pattern with a focus on proximity to transit. Therefore, the Project would not result in a cumulatively considerable impact related to energy.

Project with Building A Residential/Commercial

The cumulative impact analysis of energy for the Project with Building A Residential/Commercial would be the same as the cumulative impact analysis for the Project.

3.3.7 MITIGATION MEASURES

No significant impacts related to energy would occur, and no mitigation measures are necessary.

3.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project and Project with Building A Residential/Commercial would not result in significant energy related impacts.

3.3.9 SUMMARY OF ANALYSIS

Project

Construction and operation of the Project would not result in wasteful, inefficient, or unnecessary construction of energy resources, nor conflict with or obstruct the applicable State or local plans for renewable energy and energy efficiency. There would be a less than significant impacts, and no mitigation is required.

Project with Building A Residential/Commercial

The summary of findings for the Project with Building A Residential/Commercial would be comparable to the findings for the Project. This scenario would have slightly reduced excavation commensurate with one fewer subterranean level and reduced operational VMT. However, for all the same reasons as discussed for the Project, construction and operation of the Project with Building A Residential/Commercial would not result in wasteful, inefficient, or unnecessary construction of energy resources, nor conflict with or obstruct the applicable State or local plans for renewable energy and energy efficiency. There would be less than significant impacts, and no mitigation is required.

3.3.10 REFERENCES

- California Energy Commission. 2021. 2019 Energy Efficiency Building Standards. Sacramento, CA: CEC. <https://www.energy.ca.gov/rules-and-regulations/building-energy-efficiency>
- Pasadena, City of. Green City Action Plan. 2006. Pasadena, CA: City of Pasadena: <https://ww5.cityofpasadena.net/planning/wp-content/uploads/sites/56/2017/07/Green-City-Action-Plan.pdf>
- Pasadena Department of Transportation (Pasadena DOT). 2021a (March 22). Transportation Impact Analysis, Outside of CEQA Analysis. Project Address: 491-577 South Arroyo Parkway. Demolition of approximately 46,000 sf commercial. Construction of 151,000 sf medical office, 3,000 sf commercial, 184,376 sf senior living facility consisting of 95 independent living units and 85,800 sf assisted living. 5,882 sf restaurant to remain. Pasadena, CA: Pasadena DOT.
- . 2021b (June 17). Transportation Impact Analysis, Outside of CEQA Analysis. Project Address: 491-577 South Arroyo Parkway. Project Summary: Demolition of approximately 46,000 sf commercial. Construction of 151,000 sf residential building with up to 197 units, 3,000 sf commercial, 184,376 sf senior living facility consisting of up to 95 independent living units and 85,800 sf assisted living. 5,882 sf restaurant to remain. Pasadena, CA: Pasadena DOT.
- . 2021c (June 17). Transportation Impact Analysis, CEQA Evaluation, Project Address 491-577 South Arroyo Parkway. Project Summary: Demolition of approximately 46,000 sf commercial. Construction of 151,000 sf residential building with up to 197 units, 3,000 sf commercial, 184,376 sf senior living facility consisting of up to 95 independent living units and 85,800 sf assisted living. 5,882 sf restaurant to remain. Pasadena, CA: Pasadena DOT. Appendix G-2.
- . 2020 (November 30). Transportation Impact Analysis, CEQA Evaluation, Category 2, Project Address 491-577 South Arroyo Parkway. Project Summary: Demolition of approximately 46,000 sf commercial. Construction of 151,000 sf residential building with up to 197 units, 3,000 sf commercial, 184,376 sf senior living facility consisting of up to 95

independent living units and 85,800 sf assisted living. 5,882 sf restaurant to remain.
Pasadena, CA: Pasadena DOT.

US Department of Energy. Office of Energy Efficiency & Renewable Energy (EERE). Washington, D.C.: EERE. <https://www.energy.gov/eere/office-energy-efficiency-renewable-energy>.

3.4 **GREENHOUSE GAS EMISSIONS**

3.4.1 **EXISTING CONDITIONS**

Global Climate Change and Greenhouse Gases

Climate change is a recorded change in the Earth's average weather measured by variables such as wind patterns, storms, precipitation, and temperature. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. The year 2020 ranks as Earth's hottest year on record, tying 2016.¹ Overall, Earth's average temperature has risen more than two degrees Fahrenheit since the 1880s. Continuing the planet's long-term warming trend, the year's globally averaged temperature was 1.84 degrees Fahrenheit (1.02 degrees Celsius) warmer than the baseline 1951-1980 mean. The last seven years have been the warmest seven years on record, typifying the ongoing and dramatic warming trend (NASA 2021).

The global atmospheric concentration of carbon dioxide (CO₂), the most abundant greenhouse gas (GHG), has increased from a pre-industrial (roughly 1750) value of about 280 parts per million (ppm) to a seasonally-adjusted 413.73 ppm in July 2021. The National Oceanic and Atmospheric Administration (NOAA) Annual Greenhouse Gas Index (AGGI) in 2020 was 1.47, which means the warming influence of GHGs has increased 47 percent since 1990. It took about 240 years for the AGGI to go from zero to one, and 30 years to increase by another 47 percent (NOAA Earth System Research Laboratory [ESRL] 2021).

Greenhouse Gases

GHGs are global pollutants and are therefore unlike criteria air pollutants such as ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), and toxic air contaminants (TACs), which are pollutants of regional and local concern (see Section 3.1, Air Quality, of this Draft EIR). While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes, ranging from one year to several thousand years. Long atmospheric lifetimes allow for GHGs to disperse around the globe. Therefore, GHG effects are global, as opposed to the local and/or regional air quality effects of criteria air pollutant and TAC emissions.

GHGs, as defined under California's Assembly Bill (AB) 32, include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO₂. For example, as CH₄ and N₂O are approximately 25 and 298 times (respectively) more powerful than CO₂ in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO₂ has a GWP of 1). Carbon dioxide equivalent (CO₂e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO₂e.

General Environmental Effects of Global Climate Change

Executive Order (EO) S-3-05 mandates the preparation of biennial science assessment reports on climate change impacts and adaptation options for California. EO S-13-08 directs the California Natural Resources Agency (CNRA) to develop a State Climate Adaptation Strategy and to provide

¹ A [separate, independent analysis](#) by the National Oceanic and Atmospheric Administration (NOAA) concluded that 2020 was the second-warmest year in their record, behind 2016.

State land use planning guidance related to sea level rise and other climate change impacts. Current reports resulting from these directed actions are the *Climate Action Team Report to the Governor and Legislature* and the *California Climate Adaptation Strategy* (CalEPA 2010; CNRA 2009a). These studies report that global warming in California is anticipated to impact resources including, but not limited to, those discussed below.

- **Public Health.** Many Californians currently experience the worst air quality in the nation, and climate change is expected to make matters worse. Higher temperatures would increase the frequency, duration, and intensity of conditions conducive to air pollution formation. If global background O₃ levels increase as predicted under some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by more frequent wildfires, which emit fine particulate matter that can travel long distances. Rising temperatures and more frequent heat waves would increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress. Climate change may also increase asthma rates and the spread of infectious diseases and their vectors, as well as challenge food and water supplies. Children, the elderly, people with chronic heart or lung disease, outdoor workers, people who exercise outdoors and the economically-disadvantaged would be particularly vulnerable to these changes. In addition, more frequent extreme weather events could also result in increased injuries and deaths from these phenomena.
- **Energy.** Increasing mean temperature and more frequent heat waves will drive up demand for cooling in summer; this new energy demand will only be partially offset by decreased demand for heating in winter. Hydropower, which currently provides 15 percent of in-state generation, would be threatened by declining snowpack, which serves as a natural reservoir for hydropower generation in the spring and summer. Winter storms, earlier snowmelt, and greater runoff may combine to cause flooding, which could, in turn, damage transmission lines and cause power outages.
- **Water Resources.** Rising temperatures, less precipitation, and more precipitation falling as rain instead of snow could severely diminish snowpack. Because the Sierra Nevada snowpack provides most of California's available water, this potential loss would increase the risk of summer water shortages and would hamper water distribution and hydropower generation. The diminished snowpack would also nearly eliminate all skiing and other snow-related recreation. Rising sea levels would push saltwater into California's estuaries, wetlands, and groundwater aquifers, threatening the water quality and reliability in the Sacramento/San Joaquin River Delta—a major California freshwater supply. Extreme precipitation and flooding could also damage water quality by creating sudden increases in runoff. Moreover, warming would increase evapotranspiration rates from plants, soil, and open water surfaces, which would result in greater demand for irrigation. Overall, climate change would reduce California's water supplies even as its growing population requires additional resources.
- **Sea Level and Flooding.** Sea level at California's coasts is expected to rise by 11 to 18 inches above 2000 levels by 2050 and by 23 to 55 inches by 2100. If realized, these increases would create more frequent and higher storm surges; would erode some coastal areas; and would increase pressure on existing levees. These increases would create a greater risk of flooding in previously untouched inland areas. Consequently, continued development in vulnerable coastal areas would put more people and infrastructure at risk.
- **Agriculture.** Although higher CO₂ levels can stimulate plant production and increase plant water-use efficiency, in the long-term, climate change would reduce the quantity and quality of agricultural products statewide. As temperatures rise, farmers will face greater water demand for crops and a less reliable water supply, as well as increased competition from urban water users. Sea level rise may cause saltwater intrusion in the Delta region,

making it difficult to raise certain crops. Rising temperatures will likely aggravate O₃ pollution, interfering with plant growth and making plants more susceptible to disease and pests. In addition, warming would reduce the number of colder hours needed for fruit and nut production; would shift pest and weed ranges; would alter crop-pollinator timing; and would increase the frequency of droughts, heat waves, and floods. Higher average temperatures would also increase mortality and decrease productivity in livestock.

- **Forestry.** California timber production has declined over the past few decades due, in part, to warming and increased wildfires. While further warming may increase production for some species in some locations, climate change is expected to reduce overall forest growth. Increasing average temperatures and drought frequency would result in more wildfires and greater burned areas, while less frequent and more intense rainfall would increase soil erosion and landslides. Higher temperatures and less water would force many tree species to shift their ranges; those that run out of livable habitat may die out. Pests, diseases, and invasive species may also colonize new areas, further challenging forest health and biodiversity.
- **Ecosystems.** Rising average temperatures would subject plants and animals to greater thermal stress, causing some species to adapt or shift their ranges, while others may face extinction. Invasive species may also shift their ranges, threatening native species. Changing temperatures would also alter the timing of plant flowering and insect emergence, damaging species' ability to reproduce. Changing precipitation patterns would impact aquatic and riparian ecosystems by reducing snowpack, stream flow, and groundwater, while increasing the frequency of droughts, floods, and wildfires. As sea levels rise, some coastal habitats may be permanently flooded or eroded, and saltwater intrusion into freshwater resources may threaten terrestrial species. Changes in ocean circulation and temperature, ocean acidification, and increased runoff and sedimentation would threaten pelagic species. In sum, continued global warming would alter natural ecosystems and threaten California's biological diversity.

Global, National, and State Contributions to Greenhouse Gas Emissions

Table 3.4-1, Comparison of Worldwide Greenhouse Gas Emissions, compares the magnitude of GHG emissions on the global, national and State scales. It shows the relative estimated quantities of GHG emissions from worldwide to California. CO₂e emissions are commonly expressed as metric tons of carbon dioxide equivalent (MTCO₂e). Larger quantities of emissions, such as on the State or world scale, are expressed in million MTCO₂e (MMTCO₂e). Metric tons may also be stated as "tonnes".

**TABLE 3.4-1
COMPARISON OF WORLDWIDE GHG EMISSIONS**

Area and Data Year	Annual GHG Emissions (MMTCO₂e)
World (2018)	47,552
United States (2018)	6,024
California (2018)	425
SCAG region (2020)	216
Pasadena (2009)	2.04
GHG: greenhouse gas; MMTCO ₂ e: million metric tons of carbon dioxide equivalent Source: Climate Watch 2021; CARB 2021a; SCAG 2020a; Pasadena 2018.	

As shown, the U.S. contributes approximately 12.7 percent of worldwide GHG emissions per year and California contributes approximately 0.9 percent. The SCAG region contributes approximately 51 percent of California's GHG emissions. Based on the data in Table 3.4-1, the City of Pasadena's GHG emissions are approximately 0.9 percent of the SCAG region's emissions; however, it is noted that there is an 11-year difference in the dates of the data.

The most common GHG is CO₂, which constitutes approximately 80 and 83 percent of all GHG emissions in the U.S. and California, respectively. The primary contributors to California GHG emissions are (1) transportation; (2) industrial uses; and (3) electric power production from both in-State and out-of-State sources. In the City's 2009 GHG emissions inventory, the transportation sector accounted for the largest portion of emissions, contributing approximately 52 percent of the community-wide total. Energy use was the second largest producer of emissions, contributing approximately 47 percent of the community-wide total (Pasadena 2018).

Project Site Emissions

GHGs are emitted from current operations at the Project site. Existing Project site GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 computer program (CAPCOA 2021), as discussed further under Section 3.4.4, Methodology. Existing emissions were calculated for the four businesses that would be removed from the site (i.e., 491/495, 499/503, 541, and 577 South Arroyo Parkway) and replaced by new uses associated with the Project or Project with Building A Residential/Commercial. In other words, the existing emissions do not include emissions from the buildings to be retained with implementation of the Project (i.e., 465, 501, and 523 South Arroyo Parkway). Existing vehicle trip data, an estimated 2,454 daily trips, are derived from the Transportation Impact Analysis (TIA) – Outside of CEQA Analysis prepared for the Project (Pasadena DOT 2021a). The results of the analysis are shown in Table 3.4-2, Estimated Annual GHG Emissions for Uses to be Removed. As shown in this table, the majority of existing emissions are from vehicle trips (mobile source emissions), followed by energy emissions.

**TABLE 3.4-2
ESTIMATED ANNUAL GHG EMISSIONS FOR USES TO BE REMOVED**

Source	Emissions (MTCO₂e/yr)
Area	<1
Energy	629
Mobile	796
Waste	130
Water	61
Total Operational Emissions	1,616
MTCO ₂ e/yr: metric tons of carbon dioxide equivalent per year	
Notes:	
<ul style="list-style-type: none"> Totals may not add due to rounding variances. Detailed calculations in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data. 	

3.4.2 RELEVANT PROGRAMS AND REGULATIONS

Federal

U.S. Environmental Protection Agency Findings

On December 7, 2009, the U.S. Environmental Protection Agency (USEPA) Administrator signed two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act (CAA).

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

The findings do not themselves impose any requirements on industry or other entities. However, this action was a prerequisite implementing GHG emissions standards for vehicles (USEPA 2021a). A light-duty vehicle is defined any motor vehicle with a gross vehicle weight of 6,000 pounds or less (CARB 2021b).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) have been working together on developing a National Program of regulations to reduce GHG emissions and to improve the fuel economy of light-duty vehicles. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking establishing standards for 2012 through 2016 model year vehicles. On October 15, 2012, the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 295 grams of CO₂ per mile by 2012, decreasing to 250 grams per mile by 2016, and finally to an average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon (mpg) and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will occur due to air conditioning technology improvements (i.e., they will leak less) and due to the use of alternative refrigerants, which would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined USEPA GHG standards and NHTSA Corporate Average Fuel Economy (CAFE) standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other States that have adopted the California standards (USEPA and NHTSA 2012).

On September 19, 2019, NHTSA and the USEPA issued a final action entitled the "One National Program Rule" to enable the federal government to provide nationwide uniform fuel economy and GHG emission standards for automobile and light duty trucks. This action finalizes critical parts of the Safer, Affordable, Fuel-Efficient (SAFE) Vehicles Rule that was first proposed in August 2018. In this proposal, the agencies proposed new and amended GHG and Corporate Average Fuel Economy (CAFE) standards for model year 2021 to 2026 light duty vehicles (USEPA and NHTSA 2019).

In this action, USEPA withdrew the Clean Air Act waiver that had been granted to the State of California in January 2013 for the State's Advanced Clean Car program with respect to GHG and Zero Emission Vehicle (ZEV) elements. In November 2019, California, 21 other states, the District of Columbia, and four California cities filed a petition for EPA to reconsider SAFE-1. A petition for reconsideration was also filed by several environmental groups.

On April 28, 2021, USEPA published a Notice of Reconsideration: California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Opportunity for Public Hearing and Public Comment. The public comment period closed on July 6, 2021 (USEPA 2021b).

State

Assembly Bill 1493 (Mobile Source Reductions)

Assembly Bill (AB) 1493, adopted September 2002, also known as Pavley I, requires the development and adoption of regulations to achieve the maximum feasible reduction of GHGs emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the State. The emission standards have become increasingly more stringent through the 2016 model year. California is also committed to further strengthening these standards beginning in 2017 to obtain a 45 percent GHG reduction from 2020 model year vehicles (CARB 2021c). Regulations to make California emissions standards for model year 2017 and beyond consistent with federal standards were adopted in 2012 and are discussed further below.

CARB's Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars Program, an emissions-control program for model year 2017 through 2025. The program combines the control of smog, soot and GHGs with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, the new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions. The program also requires car manufacturers to offer for sale an increasing number of zero-emission vehicles (ZEVs) each year, including battery electric, fuel cell, and plug-in hybrid electric vehicles. In March 2017, CARB adopted GHG standards for 2022 through 2025 model years and directed staff to begin rule development for 2026 and subsequent model years (CARB 2021d).

Executive Order S-3-05 (Statewide GHG Targets)

On June 1, 2005, Governor Arnold Schwarzenegger signed EO S-3-05, which proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce snowpack in the Sierra Nevada Mountains; could further exacerbate California's air quality problems; and could potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

However, executive orders do not have the same status as a law, because in California's constitutional system, it is the Legislature, not the Governor, who is entrusted with the role of making statewide laws. The Legislature declined to include the EO's 2050 goal in AB 32 (discussed below), and again declined to use the EO's 2050 goal in adopting Senate Bill (SB) 375 (discussed below), nor has it incorporated it in any implementing legislation or applicable plans. Additionally, although CARB has the requisite authority to adopt whatever regulations are necessary beyond the AB 32 horizon year 2020 to meet the target set forth in S-3-05, the agency has not done so. Since the Legislature has never enacted EO S-3-05's 2050 target, and no expert agency has interpreted CEQA to require it, the 2050 target has only the force and effect of an

executive order issued by a former Governor. If the Legislature has delegated any of its authority to define CEQA's requirements, it delegated that authority to the Governor's Office of Planning and Research (OPR).

Senate Bill 97 and the State CEQA Guidelines

Pursuant to Senate Bill (SB 97), OPR developed and CNRA adopted proposed amendments to the State CEQA Guidelines (CEQA Amendments) for the feasible mitigation of GHG emissions and their effects. The CEQA Amendments became effective on March 18, 2010.

The CEQA Amendments for Greenhouse Gas Emissions state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Amendments note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance based standards" (CNRA 2009b). Section 15064.4(b) of the State CEQA Guidelines provides that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment (CNRA 2009b):

- The extent a project may increase or reduce GHG emissions as compared to the environmental setting.
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

All of these are considered in the impact analysis presented in this section. The revisions to Appendix G, Environmental Checklist Form, of the State CEQA Guidelines, which is often used as a basis for lead agencies' selection of significance thresholds, do not prescribe specific thresholds. Rather, Appendix G asks whether the project would conflict with a plan, policy or regulation adopted to reduce GHG emissions or would generate GHG emissions that would significantly affect the environment, indicating that the determination of what is a significant effect on the environment should be left to the lead agency. Accordingly, the CEQA Amendments do not prescribe specific methodologies for performing an assessment; they do not establish specific thresholds of significance; and they do not mandate specific mitigation measures. Rather, the CEQA Amendments emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009b).

The CEQA Amendments indicate that lead agencies should consider all feasible means, supported by substantial evidence and subject to monitoring and reporting, of mitigating the significant effects of GHG emissions. As pertinent to the Project, these potential mitigation measures, set forth in Section 15126.4(c) of the State CEQA Guidelines, may include (1) measures in an existing plan or mitigation program for the reduction of GHG emissions that are required as part of the lead agency's decision; (2) reductions in GHG emissions resulting from a project through implementation of project design features; (3) off-site measures, including offsets, to mitigate a project's emissions; and (4) carbon sequestration measures (CNRA 2009b).

Among other things, the CNRA noted in its Public Notice for these changes that impacts of GHG emissions should focus on the cumulative impact on climate change. The Public Notice states (CNRA 2009a):

While the Proposed Amendments do not foreclose the possibility that a single project may result in greenhouse gas emissions with a direct impact on the environment, the evidence before [CNRA] indicates that in most cases, the impact will be cumulative. Therefore, the Proposed Amendments emphasize that the analysis of greenhouse gas emissions should center on whether a project's incremental contribution of greenhouse gas emissions is cumulatively considerable.

Thus, the CEQA Amendments continue to make clear that the significance of GHG emissions is most appropriately considered on a cumulative level.

Assembly Bill 32 (Statewide GHG Reductions)

In furtherance of the goals established in EO S-3-05, the California Legislature adopted the public policy position that global warming is “a serious threat to the economic well-being, public health, natural resources, and the environment of California” (*California Health and Safety Code*, Section 38501). The public policy statements became law with the enactment of the California Global Warming Solutions Act of 2006 (AB 32) in September 2006, after considerable study and expert testimony before the Legislature. The law instructs CARB to develop and enforce regulations for the reporting and verifying of statewide GHG emissions. AB 32 directed CARB to set a GHG emission limit based on 1990 levels, to be achieved by 2020. The bill set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. The scoping plan is described further below.

Executive Order B-30-15 (Statewide Interim GHG Targets)

California EO B-30-15 (2015) set an “interim” statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030 and directed State agencies with jurisdiction over GHG emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the Executive Order directed CARB to update the Scoping Plan to express this 2030 target in metric tons.

Senate Bill 32/Assembly Bill 197

SB 32, signed September 8, 2016, implements a goal of EO B-30-15. Under SB 32, in “adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions,” CARB must ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. SB 32's findings state that CARB will “achieve the state's more stringent GHG emission reductions in a manner that benefits the state's most disadvantaged communities and is transparent and accountable to the public and the Legislature.” AB 197, a companion to SB 32, adds two members to the CARB and requires measures to increase transparency about GHG emissions, climate policies, and GHG reduction actions.

California Air Resources Board Scoping Plan

On December 11, 2008, CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emission level would require a reduction of GHG emissions of approximately 28.5 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as “business as usual”). The Scoping Plan evaluates opportunities for sector-specific reductions; integrates all CARB and

Climate Action Team early actions and additional GHG reduction measures by both entities; identifies additional measures to be pursued as regulations; and outlines the role of a cap-and-trade program.

First Update to the Climate Change Scoping Plan

CARB approved the final “First Update to the Climate Change Scoping Plan” on May 22, 2014. The first update describes California’s progress towards AB 32 goals, stating that “California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32”. Specifically, “if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts [MW] of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80 percent below 1990 levels by 2050” (CARB 2014). Reducing the “business as usual” or NAT condition of 509 MMTCO₂e to the 1990 emissions level of 431 MMTCO₂e will require a reduction of 78 MMTCO₂e, or approximately a 15.3 percent reduction (compared to a 28.5 percent reduction as set forth in the original Scoping Plan but not directly comparable because of the change in methodology).

Second Update to the Climate Change Scoping Plan

CARB prepared a second update to the Scoping Plan to reflect the 2030 target established in EO B-30-15 and in SB 32 (discussed above). The Final Proposed 2017 Scoping Plan was published in November 2017, and the third public Board Meeting for the Proposed Scoping Plan was held on December 14, 2017, where the Final Proposed 2017 Climate Change Scoping Plan (Second Update to the Climate Change Scoping Plan, or 2017 Scoping Plan Update) was adopted.

The 2017 Scoping Plan Update includes new statutory GHG reduction requirements that were not included in the current Scoping Plan, including SB 32 (discussed below) which sets a 40 percent GHG reduction target below 1990 GHG levels to be achieved by 2030, SB 350 (which sets a 50 percent reduction in GHG emissions from electricity generation and other energy uses in existing structures, and a 50 percent renewable energy portfolio requirement), and SB 650 (which establishes priority GHG reduction targets for designated types of GHGs such as methane). The key elements of the 2017 Scoping Plan Update proposal call for further GHG reductions from the refinery sector specifically, further reductions from other stationary sources through either a renewed and expanded cap and trade or carbon tax program, further reductions from other sectors such as transportation technologies and services, water and solid waste conservation and management, and land uses in both open space and urban areas (CARB 2017).

2022 Scoping Plan Update

The 2022 Scoping Plan Update will assess progress towards achieving the SB 32 2030 target and lay out a path to achieve carbon neutrality by mid-century. The first public workshops for the 2022 Scoping Plan Update were held in June 2021 (CARB 2021e).

Senate Bill 375 (Land Use Planning)

Signed September 30, 2008, SB 375 provides for a new planning process to coordinate land use planning and regional transportation plans (RTPs) and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires Metropolitan Planning Organizations, including the Southern California Association of Governments (SCAG), to incorporate a Sustainable Communities Strategy (SCS) in their regional transportation plans that will achieve GHG emission reduction targets set by CARB. There are two mutually important facets to SB 375: reducing vehicle miles traveled (VMT) and encouraging more compact,

complete, and efficient communities for the future. SB 375 also includes provisions for exemptions from or streamlined CEQA review for projects classified as transit priority projects (SCAG 2016). See additional discussion of the SCAG plan under “Regional” regulations below.

Senate Bills 1078, 107, and SBX1-2 (Renewable Portfolio Standards)

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and again in 2011 under SBX1-2, California’s Renewable Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020. Initially, the RPS provisions applied to investor-owned utilities, community choice aggregators, and electric service providers. SBX1-2 added, for the first time, publicly owned utilities to the entities subject to RPS.

Senate Bill 350

SB 350, signed October 7, 2015, is the *Clean Energy and Pollution Reduction Act of 2015*. SB 350 is the implementation of some of the goals of EO B-30-15. The objectives of SB 350 are:

- (1) To increase from 33 percent to 50 percent, the procurement of our electricity from renewable sources.
- (2) To double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation (California Energy Commission [CEC] 2021a).

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 requires renewable energy and zero-carbon resources to supply 100 percent of electric retail sales to end-use customers and 100 percent of electricity procured to serve state agencies by December 31, 2045. This policy requires the transition to zero-carbon electric systems that do not cause contributions to increase of GHG emissions elsewhere in the western electricity grid (CEC 2021b). SB 100 also creates new standards for the RPS goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030.

Executive Order B-55-18

On September 10, 2018, Governor Brown also signed California EO B-55-18, which sets a new statewide goal of carbon neutrality as soon as possible, and no later than 2045, and achieve net negative emissions thereafter. EO B-55-18 was added to the existing Statewide targets of reducing GHG emissions, including the targets previously established by Governor Brown of reducing emissions to 40 percent below 1990 levels by 2030 (EO B-30-15 and SB 32), and by Governor Schwarzenegger of reducing emissions to 80 percent below 1990 levels by 2040 (EO S-3-05).

Title 24 Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6 of the *California Code of Regulations* [CCR]) were established in 1978 in response to a legislative mandate to reduce California’s energy consumption. The currently applicable standards are the 2019 Standards, effective January 1, 2020. The 2019 standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa), residential and nonresidential ventilation

requirements, and nonresidential lighting requirements. The ventilation measures improve indoor air quality, protecting homeowners from air pollution originating from outdoor and indoor sources (CEC 2021c). The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas and electricity use produce GHG emissions. The goal of the standards is to reduce energy use in new homes by more than 50 percent. The 2019 standards require that there is sufficient on-site electricity generation to meet the annual electricity usage for low rise residential buildings. A 30 percent reduction in energy uses is anticipated for nonresidential uses. The requirement for low-rise residential buildings to develop onsite electricity generation is consistent with the goal to develop renewable sources of energy.

The CEC adopted the 2008 changes to the Building Energy Efficiency Standards in order to (1) “Provide California with an adequate, reasonably-priced, and environmentally-sound supply of energy” and (2) “Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020”. In 2013, the CEC, in coordination with the CPUC, commenced a process to update the Title 24 energy efficiency standards and, the 2016 Title 24 Energy Efficiency Standards establish building design and construction requirements that move closer to achieving California’s zero net energy (ZNE) goals. The requirements of the energy efficiency standards result in the reduction of natural gas and electricity consumption. Both natural gas use and electricity generation result in GHG emissions.

California Green Building Standards Code

The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements and voluntary measures for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California). The development of the CALGreen Code is intended to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the following construction practices: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental quality. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is the association of Air Pollution Control Officers representing all 35 local air quality agencies throughout California. CAPCOA is not a regulatory body but has been an active organization in providing guidance in addressing the CEQA significance of GHG emissions and climate change as well as other air quality issues. The August 2010 CAPCOA publication entitled *Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures* provides guidance on the quantification of project-level mitigation of GHGs associated with land use, transportation, energy use, and other related project areas. The guidance includes detailed procedures about the approaches to assessing and calculating the GHG emissions reductions associated with project design features and mitigation measures (CAPCOA 2010). This publication’s methods are used in the CalEEMod computer model that is used to calculate GHG emissions.

Regional

South Coast Air Quality Management District

The City lies within the boundaries of the South Coast Air Quality Management District (SCAQMD). SCAQMD is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside and San Bernardino counties, including the Coachella Valley. The region is home to more than 17 million people—about half the population of the entire state of California. The mission of the SCAQMD is “To clean the air and protect the health of all residents in the South Coast Air District through practical and innovative strategies” (SCAQMD 2021).

Southern California Association of Governments

As previously discussed, SB 375 specifically required Metropolitan Planning Organizations (MPOs), including SCAG, to incorporate an SCS in their RTPs that will achieve GHG emission reduction targets set by CARB. SCAG’s current SCS is included in its 2020–2045 RTP/SCS *Connect SoCal* (SCAG 2020b).² The 2020–2045 RTP/SCS combines the need for mobility with a “sustainable future” through a reduction in the number of emissions produced from transportation sources. The document was adopted by SCAG on September 3, 2020. The 2020–2045 RTP/SCS is expected to reduce per capita transportation emissions by 19 percent by 2035 relative to 2005.

City

The City of Pasadena Climate Action Plan (CAP) was adopted on March 5, 2018 (Pasadena 2018). The CAP states, “Climate change presents Pasadena with both complex challenges and tremendous opportunities. The City of Pasadena is committed to creating a vision for a more sustainable community. By making choices to reduce its GHG emissions and preparing for the changes that are underway, Pasadena can reduce the risks from climate change.”

With respect to CEQA evaluation of new development projects, the CAP states,

The CAP establishes a framework for evaluating and mitigating GHG emissions by providing an emissions inventory, emissions reduction goals, and strategies for reducing emissions. Part of these emissions reductions will need to be achieved through better environmental and sustainable performance by new development projects.

To determine whether new development projects comply with the CAP, and to ensure that projects are contributing to GHG reductions, City staff will use the CAP Consistency Checklist (Checklist) for discretionary projects subject to CEQA.

New development projects that meet the requirements of the Checklist, including completion of one of the three options (Options A, B, or C) listed below, will be deemed to be consistent with the CAP and will be found to have a less than significant contribution to cumulative GHG emissions. Projects that do not meet the requirements in the Checklist will be deemed to be inconsistent with the CAP and must prepare a project specific analysis of GHG emissions (Pasadena 2018).

² The 2020-2045 RTP/SCS succeeds the 2016-2040 RTP/SCS.

The following Options are provided by the City for new development projects to establish consistency with the CAP, as included in Appendix D, Climate Action Plan Consistency Checklist, of the City's CAP (Pasadena 2017).

- Option A, Sustainable Development Actions, requires that the Project incorporate sustainable development actions, which would become conditions of the entitlement for approval of the project, intended to ensure that the project contributes its fair share to the City's cumulative GHG reduction goals.
- Option B, GHG Efficiency, requires that the Project demonstrate consistency with the applicable Pasadena's per service population GHG efficiency threshold.
- Option C, Net Zero GHG Emissions, requires that the Project achieve Net Zero GHG Emissions, which requires quantifying the project's GHG emission levels and demonstrate that the project would not result in a net increase in GHG emissions.

The Checklist and Option B are discussed further below, under Section 3.4.3, Thresholds of Significance, and in the impact findings, under Section 3.4.5, Environmental Impacts.

3.4.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse greenhouse gas emissions impact if it would:

Threshold 3.4a: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or

Threshold 3.4b: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The CAP Checklist, as described above, is a tool for new development projects to demonstrate consistency with the CAP, a qualified GHG reduction plan in accordance with CEQA Guidelines Section 15183.5. The City's CAP Option B GHG efficiency metric is used for this analysis. Per the City's CAP, this method recognizes that highly efficient projects (e.g., compact and mixed-use development) with relatively high mass emissions may nevertheless meet the local and State GHG reduction goals/targets. Using the demographic projections developed for the CAP, the City has developed service person efficiency thresholds for the years of 2020, 2025, 2030 and 2035 which are consistent with Pasadena's GHG emission goals included in the CAP and the State targets it is designed to achieve (AB 32, SB 32, and substantial progress towards EO S-3-05). Table 3.4-3, City of Pasadena Climate Action Plan Efficiency Thresholds, provides the thresholds for GHG efficiency for the first year that the Project would be in operation.

**TABLE 3.4-3
CITY OF PASADENA CLIMATE ACTION PLAN
EFFICIENCY THRESHOLDS**

Project's First Operational Year	Threshold
2017 – 2020	5.63 MTCO ₂ e/SP
2021 – 2025	4.56 MTCO ₂ e/SP
2026 – 2030	3.57 MTCO ₂ e/SP
2031 – 2035	2.73 MTCO ₂ e/SP
MTCO ₂ e: metric tons of carbon dioxide equivalent; SP: service person. Source: Pasadena 2018.	

Under Option B, based on the Project's and Project with Building A Residential/Commercial's first operational year of 2026, the City's GHG efficiency metric of 3.57 MTCO₂e per service person (MTCO₂e/SP) would be used as the GHG efficiency threshold. Per the CAP, with Option B, projects must be able to demonstrate a GHG efficiency which is less than or equal to the threshold listed below for the projects' first operational year to be considered consistent with the Pasadena CAP and State targets it is designed to achieve.

3.4.4 METHODOLOGY

In June 2021, the SCAQMD in conjunction with the CAPCOA and other California air districts, released the latest version of the California Emissions Estimator Model™ (CalEEMod™), version 2020.4.0 (CAPCOA 2021). The purpose of this model is to calculate construction-source and operational-source air pollutants, including GHG emissions, from direct and indirect sources; and quantify applicable GHG reductions achieved from mitigation measures. CalEEMod version 2020.4.0 was used to estimate the GHG emissions associated with the existing land uses to be removed and the proposed land uses for the Project and Project with Building A Residential/Commercial. The inputs and data for the modeling are described above for existing uses; below for proposed uses; and in Appendix B of this Draft EIR.

3.4.5 ENVIRONMENTAL IMPACTS

Threshold 3.4a: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

As described above, under Section 3.4.3, Thresholds of Significance, Option B would be applied to this analysis to assess Project and Project with Building A Residential/Commercial consistency with the CAP to determine whether either project would generate GHG emissions that may have a significant impact on the environment.

Project

Construction of the Project would begin in 2023, occur over a period of approximately 34 months, and would be completed in a single phase. Construction emissions for the Project were calculated using CalEEMod 2020.4.0, as described above. Project construction is planned to occur from March 2023 to January 2026 with a six-day work week. The CalEEMod input for construction emissions was based on the Project's construction assumptions and default assumptions derived from CalEEMod. Demolition would include an estimated 45,912 square feet (sf) of buildings and the export of approximately 300 14-cubic yard (cy) truckloads of debris. Grading for the subterranean garage and other areas for improvement would require the export of an estimated 184,013 cy of soil, requiring approximately 13,200 truckloads for export. The principal source of construction-related GHG emissions would be from internal combustion engines of construction

equipment, on-road construction vehicles, and workers' commuting vehicles. The estimated construction GHG emissions for the proposed Project would be 3,691 MTCO_{2e}, as shown in Table 3.4-4, Estimated GHG Emissions from Construction of the Project.

**TABLE 3.4-4
ESTIMATED GHG EMISSIONS FROM
CONSTRUCTION OF THE PROJECT**

Year	Emissions (MTCO _{2e})
2023	986
2024	1,429
2025	1,267
2026	9
Total	3,691
MTCO _{2e} : metric tons of carbon dioxide equivalent	
Notes:	
<ul style="list-style-type: none"> • Totals may not add due to rounding variances. • Detailed calculations in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data. 	

Operational emissions are comprised of area, energy, mobile, stationary source, waste, and water emissions. Operational GHG emissions would come primarily from energy; other sources include mobile trips; water consumption; natural gas for space and water heating; and gasoline-powered landscaping and maintenance equipment. Area source emissions are based on CalEEMod assumptions for the specific land uses and size. Energy emissions are based on the Applicant's estimate of electrical and natural gas use and default CalEEMod values. Mobile source emissions are based on the estimated Project-related trip generation forecast of 6,366 daily trips, as contained in the Project TIA – Outside of CEQA Analysis (Pasadena DOT 2021a) and incorporate the vehicle miles traveled (VMT) assumptions for the Project's trips (Pasadena DOT 2020). The emissions analyses for the Project also includes the anticipated electrical demand, natural gas demand, and mobile trips for the conversion of the two historic buildings to commercial uses, which are assumed to be restaurant for the purposes of this Draft EIR. The Project's long-term gross and net operational emissions are summarized below in Table 3.4-5, Estimated Annual Net GHG Emissions from Operation of the Project. The net operational emissions account for the emissions from the land uses to be demolished and/or replaced with the proposed Project uses on the site plus the land uses to be retained. As shown in Table 3.4-5, the Project's estimated net operational emissions would be 3,257 MTCO_{2e}/yr.

**TABLE 3.4-5
ESTIMATED ANNUAL NET GHG
EMISSIONS FROM OPERATION OF THE PROJECT**

Source	Emissions (MTCO₂e/yr)
Area	3
Energy	2,363
Mobile	1,938
Stationary - Generators	9
Waste	450
Water	110
<i>Gross Operational Emissions</i>	4,873
<i>Existing Operational Emissions (Table 3.4-2)</i>	1,616
Net Operational Emissions	3,257
MTCO ₂ e/yr: metric tons of carbon dioxide equivalent per year	
Notes:	
<ul style="list-style-type: none"> Totals may not add due to rounding variances. Detailed calculations in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data. 	

Table 3.4-6, GHG Efficiency Metric for the Project, shows the Project's GHG efficiency using Option B from the City's CAP. According to Section 2.0, Project Description, the Project would add 959 service persons to the Project site (222 residents and 737 full-time employees). Based on the service population of 959 SP for the Project, described above, the GHG efficiency metric would be 3.52 MTCO₂e/SP, which does not exceed the City's CAP GHG efficiency threshold of 3.57 MTCO₂e/SP for 2026. As such, the Project has demonstrated consistency with the City's CAP, and the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. There would be a less than significant impact, and no mitigation is required.

**TABLE 3.4-6
GHG EFFICIENCY METRIC FOR THE PROJECT**

Source	Emissions
Construction Emissions (Amortized) (MTCO ₂ e/yr)	123 ^a
Net Operational Emissions (MTCO ₂ e/yr)	3,257 ^b
Annual GHG Emissions	3,380
Service Population	959
Project-level GHG efficiency (MTCO₂e/SP/yr)	3.52
GHG Efficiency Threshold for 2026 (MTCO₂e/SP/yr)^c	3.57
Exceed Threshold?	No
MTCO ₂ e/yr.: metric tons of carbon dioxide equivalent per year; SP: service person; yr: year	
^a Total derived by dividing construction emissions (see Table 3.4-4) by 30.	
^b Total operational emissions are the gross operational emissions with a net reduction of existing emissions (see Table 3.4-5).	
^c See Table 3.4-3 for threshold for 2026.	

Project with Building A Residential/Commercial

The Project with Building A Residential/Commercial construction is also planned to occur from March 2023 to January 2026 with a six-day work week. All construction assumptions for the Project with Building A Residential/Commercial would be consistent with the Project, except that grading for the subterranean garage and other areas for improvement would require 36,802 cy less of soil export than the Project (for a total of 147,211 cy of soil export) and 2,685 less truckloads than the Project (for a total of 10,515 truckloads for export). The principal source of construction-related GHG emissions would be from internal combustion engines of construction equipment, on-road construction vehicles, and workers' commuting vehicles. The estimated construction GHG emissions for the Project with Building A Residential/Commercial would be 3,637 MTCO₂e, as shown in Table 3.4-7, Estimated GHG Emissions from Construction of the Project with Building A Residential/Commercial.

**TABLE 3.4-7
ESTIMATED GHG EMISSIONS FROM
CONSTRUCTION OF THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Year	Emissions (MTCO ₂ e)
2023	931
2024	1,429
2025	1,267
2026	9
Total	3,637
MTCO ₂ e: metric tons of carbon dioxide equivalent	
Notes:	
<ul style="list-style-type: none"> • Totals may not add due to rounding variances. • Detailed calculations in Appendix B. 	

As discussed above, operational emissions are comprised of area, energy, mobile, stationary source, waste, and water emissions. Operational GHG emissions for the Project with Building A Residential/Commercial would come primarily from energy, like the Project. Other sources include mobile trips; water consumption; natural gas for space and water heating; and gasoline-powered landscaping and maintenance equipment. Energy emissions are based on the Applicant's estimate of electrical and natural gas use and default CalEEMod values. Mobile source emissions are based on estimated Project with Building A Residential/Commercial-related trip generation forecast of 2,494 daily trips, as contained in the TIA – Outside of CEQA Analysis prepared for the Project with Building A Residential/Commercial (Pasadena DOT 2021b) and incorporate the VMT assumptions for the Project with Building A Residential/Commercial's trips (Pasadena DOT 2021c). The emissions analyses also include the anticipated electrical demand, natural gas demand, and mobile trips for the conversion of the two historic buildings to commercial uses, which are assumed to be restaurant for the purposes of this Draft EIR. The Project with Building A Residential/Commercial's long-term gross and net operational emissions are summarized below in Table 3.4-8, Estimated Annual Net GHG Emissions from Operation of the Project with Building A Residential/Commercial. The net operational emissions account for the emissions from the land uses to be demolished and replaced with the proposed Project uses on the site. As shown in Table 3.4-8, the Project's estimated net operational emissions would be 1,618 MTCO₂e/yr.

**TABLE 3.4-8
ESTIMATED ANNUAL NET GHG EMISSIONS FROM
OPERATION OF THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Source	Emissions (MTCO ₂ e/yr)
Area	6
Energy	2,249
Mobile	798
Stationary - Generators	9
Waste	62
Water	110
<i>Gross Operational Emissions</i>	3,233
<i>Existing Operational Emissions (Table 3.4-2)</i>	1,616
Net Operational Emissions	1,618
MTCO ₂ e/yr: metric tons of carbon dioxide equivalent per year	
Notes:	
<ul style="list-style-type: none"> • Totals may not add due to rounding variances. • Detailed calculations in Appendix B, Air Quality and Greenhouse Gas Emissions Modeling Data. 	

Table 3.4-9, GHG Efficiency Metric for the Project with Building A Residential/Commercial, shows the Project with Building A Residential/Commercial's GHG efficiency using Option B from the City's CAP. According to Section 2.0, Project Description, the Project with Building A Residential/Commercial would add 810 service persons to the Project site (715 residents and 95 full-time employees). Based on the service population of 810 SP, the GHG efficiency metric would be 2.15 MTCO₂e/SP, which does not exceed the City's CAP GHG efficiency threshold of 3.57 MTCO₂e/SP for 2026. As such, the Project with Building A Residential/Commercial has demonstrated consistency with the City's CAP, and would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. There would be a less than significant impact, and no mitigation is required.

**TABLE 3.4-9
GHG EFFICIENCY METRIC FOR THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Source	Emissions
Construction Emissions (Amortized) (MTCO ₂ e/yr)	121 ^a
Net Operational Emissions (MTCO ₂ e/yr)	1,618 ^b
Annual GHG Emissions (MTCO₂e/yr)	1,739^c
Service Population	810
Project with Building A Residential/Commercial-level GHG efficiency (MTCO₂e/SP/yr)	2.15
GHG Efficiency Threshold for 2026 (MTCO₂e/SP/yr)^d	3.57
Exceed Threshold?	No
MTCO ₂ e/yr.: metric tons of carbon dioxide equivalent per year; SP: service person	
^a Total derived by dividing construction emissions (see Table 3.4-7) by 30.	
^b Total operational emissions are the gross operational emissions with a net reduction of existing emissions (see Table 3.4-5).	
^c Annual emissions include the amortized construction emissions and the net operational emissions.	
^d City of Pasadena CAP Option B Threshold for the year 2026 (see Table 3.4-3).	

Threshold 3.4b: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Project

A lead agency may assess the significance of GHG emissions by determining a project's consistency with a local GHG reduction plan or CAP that qualifies under Section 15183.5 of the State CEQA Guidelines. A CAP is designed to ensure that development within a jurisdiction occurs in a manner that supports the goals of AB 32. The City adopted its CAP on March 5, 2018. As described above, the CAP is a long-range planning document that guides the City towards long-term emissions reductions in accordance with State of California goals. The CAP analyzes emission sources within the City, forecasts future emissions, and establishes emission reduction targets. This CAP is the City's roadmap to achieving the City's 2030 target and State-mandated goal of 40 percent below 1990 levels by 2030, with the ultimate goal of achieving carbon neutrality by 2045. Thus, the CAP is consistent with State plans, policies, and regulations, AB 32, the AB 32 Scoping Plan and updates, EO B-30-15, SB 32, and EO B-55-18. However, to provide further substantiation that the Project would be consistent with State plans, policies, and regulations, Project consistency with the SCAG 2020–2045 RTP/SCS *Connect SoCal*, CARB's California's Climate Change Scoping Plan (Scoping Plan), and Statewide GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32, is discussed below.

SCAG's *Connect SoCal* plan is centered on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together, and increasing investment in transit and complete streets. *Connect SoCal's* "Core Vision" includes the following categories: Sustainable Development, System Preservation and Resilience, Demand and System Management, Transit Backbone, Complete Streets, and Goods Movement. The Core Visions detail strategies to implement the goals of *Connect SoCal*. These strategies include, but are not limited to, the following: focus growth near destinations and mobility options; promote diverse housing choices; leverage technology innovations; support implementation of sustainability policies; and promote a green region (SCAG

2020b). The Project would not conflict with these strategies, as it would provide employment opportunities and residential uses on-site and proximate to other related uses. Furthermore, as described in Section 2.0, Project Description, of this Draft EIR, the Project is an infill and mixed-use development project, and is within a Transit Priority Area (TPA) and High-Quality Transit Area (HQTA), as defined by the SCAG. Therefore, the Project would provide access for visitors, employees, and residents at the Project site to utilize mass-transit options to travel to and from the site. The Project would promote diverse housing choices by providing assisted living and independent living units on-site, along with medical uses. This would reduce reliance on single-occupancy vehicles. The infill redevelopment component of the Project would accommodate new growth, which would increase connectivity in the existing City neighborhood, especially considering that the Project site is currently underutilized with surface parking and no housing onsite. Additionally, the Project would comply with all pertinent regulations to reduce GHG emissions, including Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings and the California Green Building Standards Code, which would involve the development of electric vehicle charging infrastructure and bicycle storage and parking. This would assist the City in the transition from fossil fuel-based transportation. Therefore, the Project would not conflict with the *Connect SoCal* plan.

The CARB adopted the Scoping Plan to implement AB 32. The Scoping Plan was adopted in 2008 and updated in 2014 and 2017 and provides a framework for actions to reduce the State's GHG emissions. Statewide plans and regulations, including, but not limited to, light duty vehicle GHG emissions standards, Advanced Clean Car standards, Low Carbon Fuel Standard, Renewable Portfolio Standards, Energy Efficiency Standards for Residential and Nonresidential Buildings, and California Green Building Standards, are being implemented. The Scoping Plan requires CARB and other State agencies to adopt regulations and other initiatives to reduce GHGs in the State. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations. The policies and regulations adopted for the purposes of supporting the Scoping Plan documents (i.e., AB 32, SB 32, EO S-3-05) specify reduction targets for the State. For example, EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The 2017 Scoping Plan focuses on GHG reduction targets for 2030, as specified in EO B-30-15 and now SB 32, and the path to meet 2050 GHG emissions goals. At the time of preparation of this EIR, no plans, policies, or regulations that are specific to SB 32 and applicable to the Project have been adopted. The Project would not conflict with the goals of the Scoping Plan and its updates, as the Project would be consistent with the City's CAP and would not exceed the City's CAP Option B GHG threshold of 3.57 MT CO_{2e} per service persons for the operational year of 2026. Additionally, per the reasons described above, including the Project's mixed-use nature within a TPA and HQTA, and because the Project would not exceed the threshold in the City's CAP, this analysis supports the conclusion that the Project would not impede the State's trajectory toward the previously described Statewide GHG reduction goals for 2030 or 2050.

Although VMT would be higher for the Project than existing conditions, as detailed further in Section 3.9, Transportation, of this Draft EIR, the Pasadena DOT determined that the Project would not exceed any of the CEQA transportation thresholds defined in the City's TIA guidelines. With implementation of the Project, there would be a higher efficiency of trips, as mixed uses would be located proximate to each other and public transit options. For example, the Los Angeles County Metropolitan Transportation Authority (Metro) Gold (L) Line runs adjacent to the western site boundary. The nearest light rail platforms are Del Mar Station and Fillmore Station, located approximately ¼-mile due north and due south, respectively. Additional public transit service present near the site includes the California Boulevard/Arroyo Parkway Metro bus stop located in the right-of-way (ROW) on the southern site boundary, and the Bellevue Drive/Arroyo Parkway Metro bus stop located in the ROW at the northeast corner of the site. Multimodal transportation

is encouraged with the availability of bicycle racks on Metro, Pasadena Transit, and City of Los Angeles Department of Transportation (LADOT) buses and at each Metro Gold (L) Line Station. In addition, bicycles are allowed onto Metro Gold (L) Line trains. Transit facilities provided by these agencies within ¼-mile of the Project site include the following: Pasadena Transit bus routes 20, 51, 52; Metro bus routes 177, 256, 501, 686, and 687; and Metro Gold (L) Line (light rail). Public transit availability would reduce vehicle trips and associated GHG emissions when compared with locations without similar transit attributes. Additionally, the Project would provide bicycle parking to encourage reduction of fossil-fueled vehicle use by employees and the associated GHG emissions, and it would provide new facilities for charging of electric vehicles, and parking for low-emission vehicles.

As discussed above under Threshold 3.4a, the Project's GHG efficiency metric would be below the City's CAP GHG efficiency threshold of 3.57 MTCO_{2e}/SP. The provision of infill development at a higher density than the existing land uses near high-quality transit service supports the goals and policies of the CAP, thereby supporting AB 32, the AB 32 scoping plan and updates, EO B-30-15, SB 32, and EO B-55-18. Therefore, the Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The impact would be less than significant, and no mitigation is required.

Project with Building A Residential/Commercial

Consistent with the Project, the Project with Building A Residential/Commercial's GHG efficiency metric would be below the City's CAP GHG efficiency threshold of 3.57 MTCO_{2e}/SP, per Option B. As such, the Project with Building A Residential/Commercial has also demonstrated consistency with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. However, to provide further substantiation that the Project with Building A Residential/Commercial would be consistent with State plans, policies, and regulations, Project with Building A Residential/Commercial consistency with the SCAG 2020–2045 RTP/SCS *Connect SoCal*, CARB's California's Scoping Plan, and Statewide GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32, is discussed below.

Consistent with the Project, the Project with Building A Residential/Commercial would not conflict with SCAG's *Connect SoCal* plan. The Project with Building A Residential/Commercial would provide employment opportunities and residential uses on-site and proximate to other related uses. Additionally, the Project with Building A Residential/Commercial is an infill and mixed-use development project and is within a TPA and HQTAs, and would therefore provide access for visitors, employees, and residents at the Project site to utilize mass-transit options to travel to and from the site. The infill redevelopment component of the Project with Building A Residential/Commercial would accommodate new growth, which would increase connectivity in the existing City neighborhood, especially considering that the Project site is currently underutilized with surface parking and no housing onsite. Additionally, the Project with Building A Residential/Commercial would comply with all pertinent regulations to reduce GHG emissions, including Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings and the California Green Building Standards Code. Therefore, the Project would not conflict with the *Connect SoCal* plan. Regarding consistency with the CARB Scoping Plan, the Project with Building A Residential/Commercial would also not conflict with the goals of the Scoping Plan and its updates, as the Project with Building A Residential/Commercial would be consistent with the City's CAP and would not exceed the City's CAP Option B GHG threshold of 3.57 MTCO_{2e} per service persons for the operational year of 2026. Because the Project with Building A Residential/Commercial would not exceed the threshold in the City's CAP, and all of the reasons stated above, this analysis supports the conclusion that the Project with Building A Residential/Commercial would not impede the State's trajectory toward the previously described Statewide GHG reduction goals for 2030 or 2050.

Although VMT would be higher for the Project with Building A Residential/Commercial than existing conditions, the Pasadena DOT determined that the Project with Building A Residential/Commercial would not exceed any of the CEQA transportation thresholds defined in the City's TIA guidelines. Compared to the Project, the Project with Building A Residential/Commercial would have substantively lower VMT per Capita and lower VT per Capita. With implementation of the Project with Building A Residential/Commercial, there would be a higher efficiency of trips, as mixed uses would be located proximate to each other and public transit options. Additionally, the Project with Building A Residential/Commercial would also provide bicycle parking to encourage reduction of fossil-fueled vehicle use by employees and the associated GHG emissions and would provide new facilities for charging of electric vehicles and parking for low-emission vehicles. Therefore, the Project with Building A Residential/Commercial would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. This is consistent with the findings for the Project. The impact would be less than significant, and no mitigation is required.

3.4.6 CUMULATIVE IMPACTS

Project

Because the magnitude of global GHG emissions is extremely large when compared with the emissions of typical development projects, it is accepted as very unlikely that any individual development project would have GHG emissions of a magnitude to directly impact global climate change. CAPCOA's *CEQA and Climate Change Report* states, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective" (CAPCOA 2008). As noted by the CNRA, "Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis" (CNRA 2009b). Therefore, the analysis presented above represents the cumulative impact analysis of GHG emissions for the Project. As discussed, the Project would be below the GHG efficiency threshold and result in measures that are consistent with goals of the CAP. As such, the Project would have a less than significant impact and no mitigation is required.

Project with Building A Residential/Commercial

As stated above, the analysis presented above represents the cumulative impact analysis for the Project with Building A Residential/Commercial related to GHG emissions, and therefore, the Project with Building A Residential/Commercial would have a less than significant impact and no mitigation is required.

3.4.7 MITIGATION MEASURES

No significant impacts related to GHG emissions would occur, and no mitigation is required.

3.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.4.9 SUMMARY OF ANALYSIS

Project

Option B of the CAP was utilized to establish consistency with the City's CAP for the Project. Based on the service population of 959 SP for the Project, the Project's GHG efficiency metric would be 3.52 MTCO₂e/SP, which does not exceed the City's CAP GHG efficiency threshold of 3.57 MTCO₂e/SP for 2026. As such, the Project has demonstrated consistency with the City's

CAP, and the Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. There would be a less than significant impact. As the Project would be consistent with the CAP, it would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

Option B of the CAP was utilized to establish consistency with the City's CAP for the Project with Building A Residential/Commercial. Based on the service population of 810 SP for the Project with Building A Residential/Commercial, the GHG efficiency metric would be 2.15 MTCO_{2e}/SP, which does not exceed the City's CAP GHG efficiency threshold of 3.57 MTCO_{2e}/SP for 2026. As such, the Project with Building A Residential/Commercial has demonstrated consistency with the City's CAP, and would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. There would be a less than significant impact and no mitigation is required. As the Project with Building A Residential/Commercial would be consistent with the CAP, it would not conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions. There would be a less than significant impact, and no mitigation is required.

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3.5 HAZARDS AND HAZARDOUS MATERIALS

This section analyzes potential hazards from current and/or past uses on and near the Project site and use and transport of hazardous materials during construction and operation of the Project and Project with Building A Residential/Commercial. Information in this section is derived in part from the *Phase I Environmental Site Assessment; 465, 491, 503, 525 and 577 South Arroyo Parkway, Pasadena, California 91105* (Phase I ESA), prepared by EMG and dated April 2020 (EMG 2020). The Phase I ESA is provided in Appendix E of the Draft EIR.

3.5.1 EXISTING CONDITIONS

Historic and Current Uses of the Project Site

As discussed in Section 2.0, Environmental Setting and Project Description, the Project site consists of five parcels developed with a total of nine commercial buildings with seven businesses. Table 2-1 summarizes the existing on-site land uses.

**TABLE 3.5-1
SUMMARY OF EXISTING LAND USES**

Address	Existing Use	Building Size	Disposition
465 S. Arroyo Parkway	Whole Foods Grocery	73,671 sf	To Be Retained
491/495 S. Arroyo Parkway	K9 Loft	12,676 sf	To Be Demolished
499/503 S. Arroyo Parkway	Corporate Furniture Resource	21,437 sf	To Be Demolished
501 S. Arroyo Parkway	Gold Line Pilates	2,880 sf	Historic Resource; To Be Retained
523 S. Arroyo Parkway	Town & Country Event Rentals	3,002 sf	Historic Resource; To Be Retained
541 S. Arroyo Parkway	Little Lily's Kitchen	7,493 sf	To Be Demolished
577 S. Arroyo Parkway	Guisado's Restaurant	4,306 sf	To Be Demolished

S.: South; sf: square feet

The Phase I ESA included a chronological history of the Project site uses. Based on review of historical documentation, on-site development was identified beginning in the 1890s (EMG 2020). Table 3.5-2 summarizes the land use history of the Project site roughly by decade. These land uses had a wide variety of tenants, which are listed in the Phase I ESA provided in Appendix E.

**TABLE 3.5-2
LAND USE HISTORY**

Years	Land Use(s)
1890s	Residences and vacant lots
1900s	A factory and vacant lots
1910s	Vacant building and vacant lots
1920 to Mid-1930s	Various commercial buildings (including current 485-497, 499/511 and 501 Arroyo Parkway buildings) and vacant lots
Late 1930s to 1940s	Various commercial buildings (including current 485-497, 499/511 and 501 Arroyo Parkway buildings) and a service station on the southeast portion of the site
1950s to Early 1960s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings) and a service station on the southeast portion of the Project. Of note, a “gasol pump” was noted on the 1950 Sanborn map located on the southeast corner of the 499/511 Arroyo Parkway buildings building
Mid-1960s to Late 1960s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings) and a service station on the southeast portion of the site
1970s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings) and a service station on the southeast portion of the site. Of note, a “gasol” pump was noted on the southeast corner of the 499/511 Arroyo Parkway buildings in the 1970 Sanborn map.
1980s to Early 1990s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings) and a service station on the southeast portion of the site
Mid-1990s to Late 1990s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings)
Early 2000s to Mid-2000s	Various commercial buildings (including current 485-497, 499/511, 501, 523 and 541 Arroyo Parkway buildings) and a service station on the southeast portion of the site. Of note, the service station was demolished in approximately 2002 and replaced by the current 577 Arroyo Parkway building
2008 to Current	Various commercial buildings (including current 441-483, 485-497, 499/511, 501, 523, 541 and 577 Arroyo Parkway buildings)
EMG. 2020 (April 30). <i>Phase I Environmental Site Assessment; 465, 491, 503, 525 and 577 South Arroyo Parkway, Pasadena, California 91105.</i> Owings Bills, MD: EMG. Appendix E.	

Phase I Environmental Site Assessment

The purpose of a Phase I ESA is to identify “recognized environmental conditions” or RECs, which are defined as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property”. Therefore, a Phase I ESA addresses the potential for site contamination due to past or present land uses and the potential for future site contamination based on current conditions on and surrounding a site.

The Phase I ESA did not identify any current RECs that warranted further site investigation (e.g., soil and/or water testing) based on current or historic uses of the site. The Phase I ESA also reviewed off-site facilities that have suspected or documented environmental concerns or RECs that could negatively impact the Project site. It was determined that no off-site facilities have the potential to impact the Project site, and there are no applicable RECs (EMG 2020).

Historical Recognized Environmental Condition

The Phase I ESA concluded that there was one Historical REC. An Historical REC is defined under American Society for Testing and Materials (ASTM) E1527–13 as a past release of any

hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g., property use restriction, AULS, institutional controls, or engineering controls), at the time the Phase I ESA is conducted. Essentially, this means a property was, or would have been, categorized as an REC at some point in the past, but has been remediated (i.e., cleaned up) to a point that it is not considered an REC at the time the Phase I ESA is prepared (in this case 2020).

As part of the Phase I ESA, it was determined that a former ARCO station at 125 East California Boulevard was located on the Project site from approximately the 1930s to 2002 and utilized at least three underground storage tanks (USTs). This facility was on the southern portion of the site, the location of the current restaurant at 577 South Arroyo Parkway (EMG 2020).

An unauthorized gasoline release impacting groundwater was first reported in 1988 and soil vapor extraction operations were initiated. In 1998, three USTs were removed from the site and various soil and groundwater investigations were subsequently conducted. The station received a “no further action” letter from the Pasadena Fire Department (PFD) dated May 24, 2000. However, the former ARCO site also received an additional clarification letter regarding this “no further action” letter stating that while the site has complied with the regulatory requirements for the site investigation/remediation, contamination remained at the site below regulatory action levels. A Declaration of Environmental Restriction allowing access for remediation was recorded on August 21, 2002, that was to terminate 90 days after No Further Action was received. Quarterly monitoring was conducted, and 761 cubic yards of soil was removed. The Los Angeles Regional Water Quality Control Board (LARWQCB) granted case closure on December 3, 2004, with no property use restrictions, activity and use limitations, institutional controls, or engineering controls. The monitoring wells were abandoned in 2005. The Phase I ESA concluded that based on the “no further action” status, the historical use of the Project as a service station represents a Historical REC (EMG 2020). As noted above, there are no controls on this portion of the site related to this past gasoline release and remediation.

Other Notable Findings

The Phase I ESA also identified other findings related to current and past land uses that were determined to be “de minimis conditions” or otherwise did not rise to the level of an REC; these are described below.

Gasoline Pump

A “gasol” pump was identified in the southeastern corner of what was then 511 South Arroyo Parkway based on Sanborn maps dated 1950 and 1970. This is no longer a street address in use; this would be in the central portion of the Project site in the area now occupied by the structure at 501 South Arroyo Parkway. “Gasol” is an abbreviated term for gasoline, which is used on Sanborn maps during this time period. A “gasol” pump generally consists of a fuel dispenser and most commonly a mechanical pump and nozzle. Based on the lack of information related to the historical presence of a “gasol” pump on-site, Ramboll US Corporation (Ramboll) conducted a Phase II Environmental Site Assessment to evaluate the subsurface conditions in the vicinity of the pump. On February 13, 2018, Spectrum Geophysics of Chatsworth conducted a geophysical survey to mark subsurface utility lines, subsurface structures, and underground obstructions in the area of concern. During the geophysical survey, two approximately two-inch-diameter metal conduits were observed extending above ground surface in the general vicinity of the former “gasol” pump (EMG 2020).

One conduit was located within an elevated concrete pad, extended approximately three inches above the ground surface and was backfilled with concrete. The second conduit extended approximately two inches above the ground surface and was open to an approximate depth of five feet below ground surface (bgs). A petroleum-like odor was noted on the measuring tape used to measure the total depth of the open conduit. Finally, a subsurface metallic anomaly, suggestive of piping, was detected approximately one-half foot bgs and extended laterally between the two aforementioned conduits. Two soil borings were also advanced to 20 feet bgs in the vicinity of the former pump. Soil samples were collected from borings at approximate depths of 5, 10, 15, and 20 feet bgs and were field screened for organic vapors with a photoionization detector (EMG 2020).

The soil samples were also submitted to a laboratory for the analysis of volatile organic compounds (VOCs), oxygenates and methyl tert butyl ether (MTBE), total petroleum hydrocarbons (TPH)-gasoline range organics (GRO), TPH-diesel range organics (DRO), TPH-oil range organics (ORO), and lead. Groundwater samples were not collected due to the typical depth to groundwater in the area (more than 140 feet bgs). No VOC, MTBE or TPH were detected in soil samples. Lead was detected at concentrations ranging from 3.8 mg/kg to 10 mg/kg; however, all concentrations were below the U.S. Environmental Protection Agency (USEPA) regional screening levels for residential and commercial/industrial use, and within typical background levels for California. Based on this information, the Phase I ESA stated the former “gasol” pump represents a de minimis condition associated with the site and no further action or investigation is recommended (EMG 2020).

Bus Facility and Fueling Station

The review of the historical data available for the site identified that a bus facility (and later a distributing company, auto repair facility, tire center and auto detailing shop) with an associated fueling station was located on the northern portion of the site, in the area of the current Whole Foods store, from approximately the 1930s through 2007. Sanborn Maps from 1950 through 1970 depicted “gas and oil tanks” in the southern portion of the Whole Foods site. Furthermore, a UST was formerly associated with 455 South Arroyo Parkway, in the area of the current Whole Foods store. No details regarding the size or contents of the UST were provided. Additionally, Absolute Automotive at 451 South Arroyo Parkway was listed on the historical auto station database which may have also been associated with this address/business. No records regarding the installation or removal of USTs were found during this assessment (EMG 2020).

As a three-story underground parking garage was constructed at the Whole Foods building, the Phase I ESA stated that it appears likely that any onsite USTs or potentially contaminated soils associated with USTs would have been excavated and removed during the construction of the parking garage. Based on the excavation of onsite soils during the redevelopment in 2008 and anticipated depth to groundwater (approximately 150 feet bgs), the former bus fueling facility and historical USTs do not appear to represent a REC. The Phase I ESA concluded that no further action or investigation is recommended (EMG 2020).

Hazardous Building Materials

Based on the date of construction (1921, 1925, 1951, 2003 and 2008), there is a potential that asbestos containing materials (ACMs) exist at the Project. The suspect asbestos containing roofing materials, ceiling tile, wallboard/joint compound, vinyl floor tile, vinyl sheet flooring and various mastics were observed in generally good condition except for some limited areas of damage noted in the 499/511 Arroyo Parkway building and the 577 Arroyo Parkway building (EMG 2020).

Considering the dates of construction (1921, 1925, 1951, 2003 and 2008), there is a potential that there is lead-based paint existing at the site. The painted surfaces were observed to be in generally good condition, with no chipping, peeling, or cracking paint observed. All paint applied prior to 1978 is considered suspect (EMG 2020).

Waste Generation

One cooking grease bin and an in-ground grease trap, which were not currently in use, were identified at the vacant former Margarita Jones restaurant (541 South Arroyo Parkway) and an additional in-ground grease trap, which is not currently in use was identified at the 577 South Arroyo Parkway building located on the southwest portion of the site, which was vacant at the time the Phase I ESA was prepared and is now operating as Guisado's Restaurant. In addition, a 55-gallon drum was observed on the southwest portion of the site. According to labeling on the drum, the contents are "Non-hazardous" and consist of soil cuttings that were generated during the completion of a subsurface investigation at the Project in 2018. No evidence of releases from the grease bin, traps or drum, such as staining or dead vegetation, was observed. The cooking grease in the bin and any remaining cooking grease located in the grease traps, as well as the contents of the soil cutting drum, were recommended for disposal by a licensed contractor in accordance with applicable regulations in the Phase I ESA (EMG 2020). The Applicant reports the soil cuttings and cooking grease have been disposed of appropriately and restaurants now occupy the locations of the grease traps; these properties were unoccupied at the time of the Phase I ESA site reconnaissance.

3.5.2 RELEVANT PROGRAMS AND REGULATIONS

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was authorized by Congress on October 21, 1976, through the amendment of the Solid Waste Disposal Act. This law creates the framework for the proper management of hazardous and non-hazardous solid waste. The California Environmental Protection Agency (CalEPA) and the Department of Toxic Substances Control (DTSC) regulate the generation, transportation, treatment, storage, and disposal of hazardous waste under both the RCRA and the California Hazardous Waste Control Act, discussed further below. Both laws impose "cradle-to-grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

Emergency Planning & Community Right to Know Act

The Emergency Planning & Community Right to Know Act (EPCRA) was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on-site to State and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies.

Section 3131 of EPCRA requires manufacturers to report releases to the environment (i.e., air, soil, and water) of more than 600 designated toxic chemicals; report off-site transfers of waste for treatment or disposal at separate facilities; pollution prevention measures and activities; and participate in chemical recycling. These annual reports are submitted to the USEPA and state agencies. The USEPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal

facilities. This online, publicly available, national digital database is called the Toxics Release Inventory and was expanded by the Pollution Prevention Act of 1990.

To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC) to coordinate planning and implementation activities associated with hazardous materials. The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. The federal EPCRA program is implemented and administered in California by the California Emergency Management Agency (Cal EMA), a SERC, six LEPCs, and 83 Certified Unified Program Agencies (CUPAs). Cal EMA provides staff support to the SERC and the LEPCs. The Governor's Office of Emergency Services (OES) coordinates and provides staff support for the SERC and LEPCs. Broad representation by firefighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act, promulgated under Title 49 of the CFR and administered by the U.S. Department of Transportation (DOT), governs the handling and transport of hazardous materials, including medical waste. In 1999, the DOT defined regulated medical waste as a hazardous material under Class 6.2 of the DOT regulations, thereby subjecting it to the provisions of the Hazardous Materials Transportation Act. The California Department of Transportation (Caltrans) implements these federal regulations for hazardous materials transported within California.

State

Medical Waste Management Act

The Medical Waste Management Act (MWMA) (*California Health and Safety Code* Sections 117600-118360) governs the management of medical waste in California. The Medical Waste Management Program (MWMP), administered by the California Department of Public Health (DPH), Environmental Management Branch, regulates the generation, handling, storage, treatment, and disposal of medical waste by providing oversight for the implementation of the MWMA. The MWMA regulates the storage, disposal, and transport of medical waste through a registration and permit process, including requirements for an on-site medical waste management plan. The regulations require special containers for medical, biohazardous, and sharps wastes; storage of medical waste in the common storage facility; segregation of the biohazard and medical wastes from other hazardous wastes; medical waste transportation requirements; the use of steam sterilization, incineration, microwave, or other approved technology to treat medical waste on site; protective clothing for handlers; treatment and tracking records; and annual inspection and enforcement provisions.

California Occupational Safety and Health Administration

The Division of Occupational Safety and Health, better known as Cal/OSHA, protects and improves the health and safety of working men and women in California through setting and enforcing standards; providing outreach, education, and assistance; and issuing permits, licenses, certifications, registrations, and approvals. Employers are required to monitor worker exposure to listed hazardous substances and notify workers of exposure (*8 California Code of Regulations* [CCR] Sections 337-340). Cal/OSHA regulations specify employer requirements including employee training, provision of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

Asbestos Abatement

Asbestos is a known human carcinogen, and the USEPA and CalEPA have identified asbestos as a hazardous air pollutant pursuant to Section 12 of the Federal Clean Air Act. Further, the California Air Resources Board (CARB) has identified asbestos as a Toxic Air Contaminant (TAC), pursuant to the *California Health and Safety Code* (Section 39650 et. seq.). Asbestos is also regulated as a potential worker safety hazard under the authority of the CalOSHA, discussed above. These rules and regulations prohibit emissions of asbestos from asbestos-related demolition or construction activities; require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local government agencies prior to beginning renovation or demolition that could disturb asbestos.

In California, asbestos abatement must be performed and monitored by contractors with appropriate certifications from the California Department of Health Services (DHS). In addition, CalOSHA has regulations to protect worker safety during potential exposure to asbestos under Title 8 of the *California Code of Regulations* (Section 1529 Asbestos). All demolition that could result in the release of asbestos must be conducted according to CalOSHA standards. These standards were developed to protect the general population and construction workers from respiratory and other hazards associated with exposure to these materials.

The South Coast Air Quality Management District's (SCAQMD's) Rule 1403 provides guidelines for the proper removal and disposal of asbestos-containing materials. In accordance with Rule 1403, structures that may contain asbestos are required to be subject to an asbestos survey by a Certified Asbestos Consultant (certified by CalOSHA) to identify building materials that contain asbestos. Under this rule, removal of asbestos must include prior SCAQMD notification; compliance with removal procedures and time schedules; asbestos-handling and clean-up procedures; and storage, disposal, and landfilling requirements.

Lead Abatement

Because of its toxic properties, lead is regulated as a hazardous material. Inorganic lead is also regulated as a TAC. In California, lead abatement must be performed and monitored by contractors with appropriate certifications from the California DHS. In addition, CalOSHA has adopted regulations to protect worker safety during potential exposure to lead under Title 8 of the *California Code of Regulations* (Section 1532.1 Lead). All demolition that could result in the release of lead must be conducted according to these standards, which were developed to protect the general population and construction workers from respiratory and other hazards associated with lead exposure.

Business Plan Act

In recognition of the dangers associated with keeping hazardous substances, the state legislature has enacted several laws regulating the use and transport of identified hazardous materials. California's Hazardous Materials Release Response Plans and Inventory Law, sometimes called the "Business Plan Act," aims to minimize the potential for accidents involving hazardous materials and to facilitate an appropriate response to possible hazardous materials emergencies. The law requires businesses that use hazardous materials to provide inventories of those materials to designated emergency response agencies, to illustrate on a diagram where the materials are stored onsite, to prepare an emergency response plan, and to train employees to use the materials safely.

Chapter 6.95 of the California Health and Safety Code and Title 19 of the California Code of Regulations describe the requirements for chemical disclosure, business emergency plans, and community right-to-know programs. In particular, Chapter 6.95 requires all businesses using hazardous materials to inform local government agencies of the types and quantities of materials stored on site. This disclosure enables emergency response agencies to respond quickly and appropriately to accidents involving dangerous substances.

The State requires the owner or operator of any business that handles hazardous materials in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of gas at standard temperature and pressure, to develop and submit a business plan. The Governor's Office of Emergency Services (OES), acting pursuant to Section 25503.3 of the Health and Safety Code, has developed a single comprehensive hazardous materials inventory form for businesses to use to submit their individual hazardous materials inventories. This form contains all State and federally required inventory information and use of this form is mandatory.

California Hazardous Waste Control Act

The California Hazardous Waste Control Act (HWCA), as found in the *California Health and Safety Code* (see Division 20, Chapter 6.5, Article 2, Section 25100, et seq.) authorizes the DTSC and local CUPA to regulate facilities that generate or treat hazardous waste. The HWCA authorizes CUPAs to perform the following actions:

- Conduct inspections of any factory, plant, construction site, waste disposal site, transfer station, establishment, or any other place or environment where hazardous wastes are stored, handled, processed, disposed of, or being treated to recover resources
- Maintain records of compliance with the HWCA
- Require hazardous waste generators to pay inspection and administration fees to cover the costs of administering the provisions in the HWCA. Fees may include but shall not be limited to the costs of inspection, document development and processing, recordkeeping, enforcement activities, and informational materials development and distribution
- Issue authorization for on-site treatment of hazardous waste to persons eligible to operate pursuant to permit-by-rule, conditional authorization, or conditional exemption
- Enforce against violations of the HWCA

Local

Certified Unified Program Agency

Senate Bill (SB) 1082 (1993) established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, which consolidates, coordinates, and makes consistent six different hazardous material/waste programs. A CUPA is an agency of a county or city that administers these State programs regulating hazardous materials and hazardous wastes. Currently, there are 83 CUPAs in California.

The Los Angeles County Fire Department (LACFD) is the CUPA for much of Los Angeles County. However, the Pasadena Fire Department (PFD) is designated as a participating agency and is authorized to implement one or more of the program elements within their jurisdiction. The LACFD and PFD administer the following programs:

- Hazardous Materials Release Response and Inventory Program;

- California Accidental Release Prevention Program (CalARP), a combination of federal and state programs for the prevention of accidental release of regulated toxic and flammable substances;
- Underground Storage Tanks (UST) Program;
- Aboveground Storage Tanks (AST) Program; and
- Hazardous Waste Generator Program.

Pasadena Municipal Code

Chapter 8.80, Handling and Disclosure of Hazardous Materials, of the Pasadena Municipal Code (PMC) is applicable to all businesses in the City that handle hazardous materials. It establishes uniform standards for disclosure, fees, and penalties associated with the proper handling of hazardous materials. The Pasadena fire chief is empowered to enforce compliance, and the PFD is authorized to clean up or abate the effects of any hazardous materials deposited on public or private property in the City.

3.5.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse hazards and hazardous materials impact if it would:

- Threshold 3.5a:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Threshold 3.5b:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school; and/or
- Threshold 3.5c:** 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 create a significant hazard to the public or the environment.

The Initial Study (provided in Appendix A-1) concluded the following thresholds related to hazards and hazardous materials were determined to result in no impacts or less than significant impacts and were not carried forward into the Draft EIR for further analysis:

- Would the project 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?
- 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?
- Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

3.5.4 METHODOLOGY

The contents of Phase I ESAs are defined by national record review requirements in accordance with both the ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the USEPA Standards and Practices for All Appropriate Inquiries (40 *Code of Federal Regulations* [CFR] Part 312). The Phase I ESA for the proposed Project was conducted in accordance with these standards. The findings of the Phase I ESA would apply equally to the Project and Project with Building A Residential/Commercial.

3.5.5 ENVIRONMENTAL IMPACTS

Threshold 3.5a: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Project

Hazardous materials are routinely used by businesses and private individuals. Common community businesses in urban areas that utilize hazardous materials include service stations, medical labs, dry cleaners, and photo-processing centers. In addition, commonly used household products such as paints, cleaners, oils, batteries, and pesticides contain hazardous materials. Accordingly, hazardous materials that may be commonly encountered in a typical urban environment generally include petroleum products (including oil and gasoline); automotive fluids (antifreeze, hydraulic fluid); paint; cleaners (dry cleaning solvents, cleaning fluids); and pesticides from current or historical agricultural uses (if in significant concentrations). Accidental spills or leaks, illegal dumping of hazardous waste, improper storage, or a transportation accident could release hazardous materials or wastes in the community and pose public health and safety risks.

Operation of medical and medical-related facilities, such as the medical offices in Building A and assisted living facilities in Building B, would involve the routine transport, use, and disposal of hazardous materials (e.g., pharmaceutical products, medical gases, radioisotopes and x-ray producing machines, cleaners, solvents, medical and biological wastes). This would include the use of hazardous materials for various medical procedures and facility maintenance and generation of biomedical waste. These types of materials are typical of any medical facility and would not be considered acutely or unusually hazardous. Also, each proposed building would have a 50-kilovolt standby emergency engine diesel generator.

Health care facilities in California are licensed, regulated, inspected, and/or certified by several public and private agencies at the State and federal levels. In particular, the DPH Licensing and Certification Program is responsible for ensuring health care facilities comply with State laws and regulations. All medical and medical-related uses proposed for the Project would obtain required licenses/permits for the operation of the facility, including those needed for the laboratories, radiologic equipment, medical devices, workplace safety, radioactive materials, and certified professionals. Health care professionals at both the medical offices in Building A and the assisted living facilities in Building B would also be licensed individuals, where necessary.

All hazardous materials and/or wastes associated with the Project, including those related to proposed commercial uses and the presence of diesel generators, would be transported only by a Licensed Hazardous Waste Hauler, who must meet all applicable State and federal requirements, including U.S. DOT regulations under 49 Code of Federal Regulations (Hazardous Materials Transportation Act) and Caltrans standards pursuant to the Hazardous Materials Transportation Act to be licensed. Additionally, the Project would be required to comply with all applicable permitting, reporting, and other requirements of the following CUPA programs,

administered by the PFD and/or LACFD: Hazardous Materials Release Response and Inventory Program; CalARP; AST Program; and Hazardous Waste Generator Program.

These regulations would require permits, disclosure and inventory, spill prevention and response plans, monitoring and inspections, spill reporting, emergency procedures, employee training, remedial actions, and other compliance measures to prevent the release of hazardous materials into the environment. Thus, no public health hazards associated with the day-to-day operations of the Project would be created at the site. With compliance with all applicable regulations, the Project would not result in a significant hazard to the public or the environment related to the routine transport, use, disposal, and storage of hazardous materials. The Project would result in less than significant impacts, and no mitigation is required.

Project with Building A Residential/Commercial

The Project with Building A Residential/Commercial would not generate as much biomedical waste (categorized as hazardous materials) as the Project, since only the assisted living building would generate such materials. This development scenario would instead generate a mix of non-hazardous municipal waste and biomedical waste. Like the Project, the buildings would each have a standby emergency generator. Therefore, the same regulations for health care facilities would remain applicable to Building B, and the same regulations for commercial uses and the presence of diesel generators would remain applicable. Even though this scenario would not result in generating as much biomedical waste as the Project, the risk to the public or the environment would not be appreciably reduced under this scenario because 1) health care facilities are strictly regulated in California, and 2) the types of medical facilities and related materials used in either the Project or this scenario are typical of medical facilities and not acutely or unusually hazardous. As with the Project, the Project with Building A Residential/Commercial would result in less than significant impacts, and no mitigation is required.

Threshold 3.5b: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter-mile of an existing or proposed school?

Project

The Project site is within approximately one-quarter mile of the following three schools:

- Mayfield Junior School, 405 South Euclid Avenue;
- The Waverly School, 67 West Bellevue Drive; and
- Aria Montessori School, 693 South Euclid Avenue.

The emission or handling of hazardous materials or substances could pose hazards to nearby schools in the event of an accidental release or spill. As discussed under Thresholds 3.5(a) above and 3.5(c) below, construction and operation of the Project would involve the use of common hazardous substances, potential encounter of hazardous building materials (ACMs and LBP), and use of medical and medically related materials that can be categorized as hazardous.

As discussed below, compliance with SCAQMD Rule 1403 and the CalOSHA's Title 8 regulations on asbestos and lead abatement would be a condition of Project approval and would ensure that handling and disposal of these materials is conducted safely and accident conditions during demolition activities would not be reasonably foreseeable. Handling and use of common hazardous materials, such as fuel, oil, and solvents, during construction was addressed in the Initial Study.

As discussed above, there are several regulations pertaining to management of hazardous materials and wastes, including materials associated with health care facilities, that would apply to the operation of the Project. As noted, health care facilities are strictly regulated in California and the types of medical facilities and related materials used in the Project are typical of medical facilities and not acutely or unusually hazardous. All hazardous materials and/or wastes associated with the Project, including those related to proposed commercial uses and the presence of diesel generators, would be transported and handled in compliance with the Hazardous Materials Transportation Act and applicable CUPA programs. As such, an accidental release capable of affecting nearby schools is not reasonably foreseeable.

The Project would result in less than significant impacts related to emission of hazardous emissions or handling hazardous or acutely hazardous materials, substances, or waste within proximity to schools in the Project site vicinity, and no mitigation is required.

Project with Building A Residential/Commercial

As discussed above under Threshold 3.5(a), while the Project with Building A Residential/Commercial would generate relatively less biomedical waste than the Project, this development scenario would still generate biomedical waste. This is the only difference in construction or operation related to hazardous materials compared to the Project. Therefore, the same regulations for health care facilities would remain applicable to Building B, and the same regulations for commercial uses and the presence of diesel generators would remain applicable. As such, like the Project, the Project with Building A Residential/Commercial would result in less than significant impacts related to schools in the Project site vicinity, and no mitigation is required.

Threshold 3.5c: Would the Project 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?

Project

Cortese List and Other Listed Sites

Based on review of the Cortese List data resources, the Project site is not located on the State of California Hazardous Waste and Substances Sites List of sites published by CalEPA and compiled pursuant to Section 65962.5 of the *California Government Code* (referred to as the Cortese List). There is one site on the Cortese List located in the City of Pasadena, which is the Jet Propulsion Laboratory (CalEPA 2020), located approximately 4.25 miles to the northwest.

As discussed above, a Phase I ESA was conducted and identified no RECs related to current or historic land uses on or surrounding the Project site. The Phase I ESA did identify one Historical REC on the southern portion of the Project site based on a former service station and associated gasoline release that was remediated. Based on the “no further action” regulatory status of this portion of the Project site, the Phase I ESA states no further action or investigation is recommended (EMG 2020; Appendix E). As noted above, there are no controls on this portion of the site related to this past gasoline release and remediation.

Furthermore, a Historical REC is not a REC, defined under ASTM E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. For a past release to be determined a Historical REC, the release or other event must have been previously cleaned up or meet current regulatory standards without clean up. As

such, there are no conditions present on the site such that excavation activities would be expected to encounter on-site contamination. Handling and transport of hazardous materials, that would represent a significant hazard to construction workers, the public, or the environment, is not anticipated.

Hazardous Building Materials

The likely presence of ACMs and LPB at the site, due to the age of the buildings, was disclosed in the Initial Study (see Appendix A of this Draft EIR). Compliance with SCAQMD Rule 1403 and the CalOSHA's Title 8 regulations on asbestos and lead abatement would be conditions for the Project approval and would ensure that handling and disposal of these materials is conducted safely, and accident conditions during demolition activities would not be reasonably foreseeable. As such, the transport, use, and disposal of hazardous materials required for construction and the presence of ACMs and LBP in buildings to be demolished would not present a significant hazard to the construction workers, the public, or the environment. The Project would result in less than significant impacts, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of potential hazards related to location on a site identified on the Cortese List, past or present land uses, and/or hazardous building materials would be the same for both the Project and the Project with Building A Residential/Commercial. The analysis is based entirely on the history and/or current land uses on the site and the planned demolition of buildings that likely contain ACMs and/or LBP, and planned land uses have no bearing on the conclusions. The Project with Building A Residential/Commercial would result in less than significant impacts, and no mitigation is required.

3.5.6 CUMULATIVE IMPACTS

Project

Existing developments in the City, including health care facilities, pose risks to public health and safety with respect to the use, storage, handling, generation, transport, and disposal of hazardous materials. Future developments throughout the City would increase these risks as more facilities or operations may utilize hazardous materials or may be located on the Cortese list or other hazardous materials databases.

Regulations for a variety of activities and uses to protect public health and safety exist at all levels of government. Compliance of individual projects, including the Project, with pertinent regulations would preserve public health and safety and would prevent hazards to existing and future developments. Thus, with compliance with regulations, future growth and development in the City is not expected to present significant risks to public health and safety. Also, future growth and development would be subject to review and approval by the PFD and LACFD (i.e., CUPA), as applicable to land uses that handle hazardous materials and/or generate hazardous waste. The Project's compliance with existing health and safety regulations as discussed in this section would prevent the creation of health risks and public safety hazards. Therefore, the Project's contribution to cumulative impacts would be less than significant, and no mitigation is required.

Project with Building A Residential/Commercial

The cumulative impact analysis of hazards and hazardous materials for the Project with Building A Residential/Commercial would be the same as that of the Project.

3.5.7 MITIGATION MEASURES

No significant impacts related to hazards and hazardous materials would occur, and no mitigation is required.

3.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.5.9 SUMMARY OF ANALYSIS

Project

Construction and operation of the Project would not result in a significant hazard to the public or the environment related to the routine transport, use, disposal, and storage of hazardous materials through compliance with all applicable regulations. There would be a less than significant impact, and no mitigation is required. Construction and operation of the Project would not result adversely affect schools in the vicinity through compliance with applicable regulations. There would be a less than significant impact, and no mitigation is required. There are no conditions present on the site due to current or historic land uses such that excavation activities would be expected to encounter on-site contamination. Handling and transport of hazardous materials, that would represent a significant hazard to construction workers, the public, or the environment, is not anticipated. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

The summary of findings for the Project with Building A Residential/Commercial would be comparable to the findings for the Project. The only difference is that this scenario would not generate as much biomedical waste (categorized as hazardous materials) as the Project. As with the Project, the Project with Building A Residential/Commercial would result in less than significant impacts related to hazards and hazardous materials, and no mitigation is required.

3.5.10 REFERENCES

EMG. 2020 (April 30). *Phase I Environmental Site Assessment; 465, 491, 503, 525 and 577 South Arroyo Parkway, Pasadena, California 91105*. Owings Mills, MD: EMG. Appendix E.

3.6 LAND USE AND PLANNING

This section discusses consistency of the proposed Project and Project with Building A Residential/Commercial with applicable City land use and planning documents and regulations as well as land use consistency. Information in this section is derived in part from *City of Pasadena General Plan* and its Environmental Impact Report (EIR) and the Central District Specific Plan (CDSP).

3.6.1 EXISTING CONDITIONS

On-Site and Surrounding Land Uses

The Project site consists of five parcels developed with a total of nine commercial buildings with seven businesses. All existing buildings on the site are one or two stories with heights ranging between 17 feet and 63 feet. All existing land uses have surface parking except for the Whole Foods Market, which has a 275-space subterranean parking structure for its sole use. Table 3.6-1 summarizes the existing on-site land uses; and Exhibit 2-2, Existing Project Site, in Section 2.0, Environmental Setting and Project Description, illustrates the addresses and locations of the nine existing buildings and other on-site land uses.

**TABLE 3.6-1
SUMMARY OF EXISTING LAND USES**

Address	Existing Use	Building Size	Disposition
465 S. Arroyo Parkway	Whole Foods Grocery	73,671 sf	To Be Retained
491/495 S. Arroyo Parkway	K9 Loft	12,676 sf	To Be Demolished
499/503 S. Arroyo Parkway	Corporate Furniture Resource	21,437 sf	To Be Demolished
501 S. Arroyo Parkway	Gold Line Pilates	2,880 sf	Historic Resource; To Be Retained
523 S. Arroyo Parkway	Town & Country Event Rentals	3,002 sf	Historic Resource; To Be Retained
541 S. Arroyo Parkway	Little Lily's Kitchen	7,493 sf	To Be Demolished
577 S. Arroyo Parkway	Guisado's Restaurant	4,306 sf	To Be Demolished
Total Existing Building Area		125,465 sf	
S.: South; sf: square feet			

The Project area is an urban environment, and the site and surrounding area are fully built out with a broad mix of land uses. These land uses also represent a variety of ages, architectural styles, heights, and conditions. Exhibit 2-3, Aerial Photograph, in Section 2.0 shows the site and existing land use types in the surrounding area.

Commercial land uses are primarily located to the north, including retail, services, and restaurants. Other land uses to the north include medical offices; Pasadena Humane Society, located approximately 0.1-mile to the northwest; Central Park, located approximately 0.2-mile northwest of the site; and single- and multi-family residential land uses located, at the nearest, approximately 0.2-mile to the north on Del Mar Boulevard and approximately 0.1-mile to the north-northeast on Bellevue Drive. Commercial land uses are located opposite the Project site on Arroyo Parkway. Single- and multi-family residential land uses are situated less than 0.1-mile to the east along Marengo Avenue and Arroyo Parkway. Land uses to the south include a mix of commercial, medical office, and single- and multi-family residential land uses; the latter is located along Marengo Avenue and California Boulevard to the southeast. To the west, there is a mix of commercial and non-profit (i.e., npr/KPCC and Union Station Homeless Services) uses. Further from the site, land uses include a mix of commercial, medical, light industrial, single- and multi-family residential, and public (e.g., schools, churches, parks).

3.6.2 RELEVANT PROGRAMS AND REGULATIONS

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties, an area that encompasses more than 38,000 square miles. As the designated MPO, the federal government mandates that SCAG research and draw up plans for transportation, growth management, hazardous waste management, and air quality. Among the many activities SCAG undertakes are the following:

- Maintaining a continuous, comprehensive, and coordinated planning process resulting in a Regional Transportation Plan (RTP) and a Federal Transportation Improvement Program (FTIP);
- Developing a Sustainable Communities Strategy (SCS) to reduce greenhouse gas emissions as required by applicable State law (SB 375) as an element of the RTP.

The RTP is a long-range transportation plan that is developed and updated by SCAG every four years to guide transportation investments throughout the region. The SCS is a required element of the RTP that integrates land use and transportation strategies to achieve California Air Resources Board emissions reduction targets pursuant to Senate Bill (SB) 375.

On September 3, 2020, the SCAG Regional Council adopted the 2020–2045 RTP/SCS (RTC/SCS; also referred to as Connect SoCal) and the addendum to the *Connect SoCal Program Environmental Impact Report*. The 2020–2045 RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for Southern Californians (SCAG 2020).

High-Quality Transit Areas and Transit Priority Areas

High-Quality Transit Areas (HQTAs) are areas within one-half mile of a fixed guideway transit stop or a bus transit corridor where buses pick up passengers at a frequency of every 15 minutes or less during peak commuting hours. Transit Priority Areas (TPAs) are areas within one-half mile of a major transit stop that is existing or planned. The Project site is within both a HQTA and TPA.

City

Pasadena General Plan

The City adopted the current *Pasadena General Plan* in August 2015. In accordance with State law, the General Plan provides the overall framework for translating broad community values and expectations into goals and policies for managing growth and enhancing the quality of life in the City. The Land Use Element of the General Plan includes a series of Guiding Principles, which cumulatively represent the City's vision for the future. Each of the Guiding Principles is addressed in the analysis below. In implementing the Guiding Principles, the Land Use Element establishes a framework for development that promotes higher density, mixed-use, urban environments oriented to transit and pedestrian activity within specific, high-quality areas of the City that reflect the historic scale and character of Pasadena. Targeted areas include distinctly urban locations,

such as the urban core, underutilized properties, transit-oriented development areas, mixed-use areas, and urban villages.

Central District Specific Plan

The Land Use Element of the City's General Plan establishes an overall pattern of development that directs growth "into specific areas in order to protect residential neighborhoods and create mixed-use urban environments." These areas are based on a concept of higher density, mixed-use environments that support transit- and pedestrian-oriented mobility strategies. The Central District is one of eight areas throughout the City requiring preparation of a specific plan to implement this goal.

The CDSP encompasses 960 acres corresponding to the area recognized by Pasadena residents as "downtown". The CDSP's vision statement is:

The Central District will function as the City of Pasadena's vibrant urban core, providing a diversity of economic, residential, and cultural opportunities. Downtown will be a place to work, shop, live, and play, with convenient access by foot, bicycle, and transit, as well as by car. Physical and economic growth will support this role and respect the numerous resources of historical and cultural significance that contribute to Downtown's unique identity (Pasadena 2004).

The CDSP's Policy Framework established planning objectives to support this vision and further defines the role of the Central District in the City. In addition, the CDSP has established specific development standards, codified in Chapter 17.30 of the Pasadena Municipal Code (PMC), for permitted land use types, maximum housing density, maximum floor area ratio (FAR), minimum and maximum building heights, required setbacks, open space, signage, and parking.

Within the CDSP, the site is identified as within the Arroyo Corridor Transition precinct within the Arroyo Corridor/Fair Oaks sub-district, which is an important gateway to downtown that also supports a broad, but rather undefined, mixture of uses at the periphery of the urban core. The objective of the Arroyo Corridor/Fair Oaks sub-district is to establish Arroyo Parkway as a visually appealing entrance corridor. Additionally, the intent of sub-district is to provide an attractive opportunity for employment-generating uses adaptable to changing economic conditions—such as arts, technology, and knowledge-based enterprise—within a revitalized low-scale, mixed-use setting at the periphery of Downtown Pasadena. The emphasis of the Arroyo Corridor Transition precinct is the transitional character of the area towards more pedestrian and transit-oriented development with a mix of land uses including residential, commercial, and employment (Pasadena 2004).

Pasadena Zoning Code

The City's zoning code (Title 17 of the PMC) implements the General Plan's Land Use Element. The intent of the zoning code is to protect public health, safety, and the general welfare of residents and visitors in the City. Together with the zoning map, the zoning code identifies the particular use permitted on each parcel in the City and sets forth regulations and standards for development to ensure that the policies, goals, and objectives of the General Plan are implemented.

In addition to land use regulations, the zoning code provides development standards. The standards regulate things such as height, setbacks, parking, lot coverage, and gross floor area of structures. It also regulates what uses are permitted in each of the City's zoning districts to ensure compatibility between land uses.

Zoning Code Variances

A zoning variance acts as a waiver to some aspect of the zoning law, but it cannot violate the expressed basis of the controlling code. Section 17.61.080 of the PMC, Variances, allows for variances from the development standards of this Zoning Code, variances for historic resources, and modifications for individuals with disabilities. The Project Applicant requests a variance for historic resources, which is addressed in Section 17.61.080(H) et. seq. of the PMC.

According to the PMC, a variance for historic resources is intended to accommodate historic resources that are undergoing development, change in use, or are being relocated. This unique type of variance is designed to provide relief from the strict compliance with the development standards of the zoning code that may impair the ability of a historic resource to be properly used or to be relocated onto a new site. The PMC states that this type of variance shall not allow a use of land or structure not otherwise allowed in the zoning district in which the subject property is located. It only applies if the property has a historic designation or is required, as a condition of approval of the variance, to submit an application for historic designation prior to completion of the proposed project or establishment of the proposed use.

The review authority may approve a variance for historic resources application, with or without conditions, only after first finding that:

- a) The variance for historic resource is necessary to facilitate the appropriate use of an existing historic structure;
- b) The variance for historic resource would not adversely impact property within the neighborhood or historic district; and
- c) Granting the variance for historic resource application would be in conformance with the goals, policies, and objectives of the General Plan and the purpose and intent of any applicable specific plan.

Because the Project would involve concurrent permit processing, rather than the variance as a standalone permit, the variance for historic resources would be considered as part of the Project's entitlements by the highest level review authority. In this case, it would be Planning Commission review followed by consideration by City Council.

Planned Development Zoning District

As discussed in Section 2.0, Environmental Setting and Project Description, implementation of the Project would require approval of a Planned Development (PD) zoning district for the site. According to the City of Pasadena zoning code, the specific purposes of the PD zoning district are to:

- Establish a procedure for the development of large parcels of land in order to reduce or eliminate the rigidity, delays, and inequities that otherwise would result from application of land use regulations and administrative procedures designed primarily for small parcels;
- Ensure orderly and thorough planning and review procedures that will result in quality urban design.
- Encourage variety and avoid monotony in large developments by allowing greater freedom in selecting the means to provide access, light, open space, and amenity;

- Allow certain types of development consistent with the general plan that can be acceptable at a specific location only under standards significantly more restrictive than those of a base district in which the use is permitted;
- Provide a mechanism whereby the city may authorize desirable developments in conformity with the general plan without inviting speculative rezoning applications that if granted, often could deprive subsequent owners of development opportunities that do not necessarily result in construction of the proposed facilities;
- Encourage allocation and improvement of common open space in residential areas, and provide for maintenance of the open space at the expense of those who will directly benefit from it;
- Encourage the preservation of serviceable existing structures of historic value or artistic merit by providing the opportunity to use them imaginatively for purposes other than that for which they were originally intended; and
- Encourage the assembly of properties that might otherwise be developed in unrelated increments to the detriment of surrounding neighborhoods.

Adoption of a PD zoning district would reclassify the Project site from CD-6 to PD-39, while simultaneously establishing applicable land use regulations and development standards that are specific to the newly established zoning district. The regulations and standards that dictate permitted and conditionally permitted land uses and development would be prescribed in the accompanying PD Plan. This ensures the Project or Project with Building A Residential/Commercial is developed as intended. PD Plans are developed in consideration of existing zoning requirements that are applicable to a project site while also providing flexibility in site usage and building design.

The City's process allows a property owner to initiate an amendment to reclassify a property two acres or larger to a PD zoning district. A proposed PD zoning district and the permitted or conditionally permitted land uses are required to be consistent with the City's General Plan. However, development cannot exceed maximums for floor area ratio or density on the Land Use Diagram (but only as high as a 3.0 FAR and 87 du/acre) unless approved by the City Council.

The review process of a new PD Application requires input from the City's Design Commission, Planning Commission, and City Council. The review process for a proposed Planned Development is outlined in Sections 17.26.020(C)(3)(d) (Commission and Council Action), 17.61.030(I)(5)(b) (Design Conditions), and 17.74 (Amendments) of the PMC. The role of the Design Commission is limited to recommendations to the Planning Commission and City Council on aesthetic and urban design issues related to architecture, landscaping, site plan, and related aesthetic issues, as well as historic preservation. Additionally, comments on the aesthetic/cultural resources of a draft environmental study are appropriate. Therefore, review and advisement by the Design Commission regarding the proposed PD zone and PD Plan would occur first at a public meeting.

A subsequent review of a proposed PD zone and PD Plan would occur at a public hearing by the Planning Commission. The Planning Commission's role is to make a written recommendation to the City Council to approve, approve with modifications, or deny the proposed reclassification and PD Plan. The City Council's role is to hold a public hearing to consider the recommendation of the Planning Commission and to hear evidence regarding the proposal. Upon receipt of the Planning Commission's recommendation, the City Council would move to approve, approve with modifications, or deny the proposed PD zoning district and PD Plan. Prior to any approval, the City Council is required to certify the Final EIR. Planned Developments and the accompanying

PD Plan are made a part of the Zoning Code when approved to ensure implementation occurs as approved.

The basic design of a project, including compatibility with surroundings, massing, proportion, siting, solid-to-void relationships, and compliance with applicable design guidelines is evaluated through the City's Design Review process and is a role for the City's Design Commission. This phase of review generally occurs after approval of the PD Application, if received. An approved PD zoning district and accompanying PD Plan cannot be later revised without requiring a formal application from the Applicant, noticed public hearings before the Planning Commission and City Council, and further appropriate environmental review pursuant to CEQA.

3.6.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse land use and planning impact if it would:

Threshold 3.6a: 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.

The Initial Study (provided in Appendix A-1) concluded the following threshold related to land use and planning was determined to result in no impacts and was not carried forward into the Draft EIR for further analysis:

- Would the project physically divide an established community?

3.6.4 METHODOLOGY

The analysis of potential land use impacts considers the Project's consistency with applicable land use plans, policies, and regulations adopted for the purpose of reducing or avoiding an environmental impact. This analysis considers the land use development controls on the site and the compatibility of the proposed uses with surrounding land uses. A project is considered consistent with the provisions of the identified regional and local plans if it meets the general intent of the plans and would not preclude the attainment of the primary intent of the land use plan or policy. A given project need not be in perfect conformity with each and every policy nor does State law require precise conformity of a proposed project with every policy or land use designation for a site.

3.6.5 ENVIRONMENTAL IMPACTS

Threshold 3.6a: **Would the Project 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?**

Project

The primary land use planning documents that govern the Project site are the City's General Plan, CDSP, and the City's zoning code. Additionally, the 2020–2045 RTP/SCS is prepared, in part, based on data from cities and counties related to their respective general plans, land uses, and expected demographic growth. While the Project is considered consistent with the General Plan, based on comments received during the scoping period for the Project, a consistency analysis is also provided herein for the Land Use Element's Guiding Principles, General Plan goals and policies that have the purpose of avoiding or mitigating an environmental effect, and applicable objectives of the CDSP.

The paragraphs below evaluate the Project's consistency with these documents.

Pasadena General Plan

The City's General Plan land use designation for the site is High Mixed-Use, which is intended to support multi-story mixed-use buildings with a variety of compatible commercial and residential uses. Development within this designation is characterized by shared open spaces, extensive landscaping, minimal building separations, and shared driveways with parking located underground or to the rear of the street. The High Mixed-Use General Plan land use category allows maximum densities of 3.0 floor area ratio (FAR) and 87 dwelling units per acre (du/acre). Based on the site area (144,853 sf), the site would allow up to 434,559 sf of floor area and up to 289 dwelling units. Development of the Project would result in a total of 417,929¹ sf of floor area (aboveground), which would include up to 95 senior housing units. The Project would not require a General Plan amendment. Also, as discussed in Section 2.14, Population and Housing, of the Initial Study (refer to Appendix A-1), there is adequate remaining development capacity in the Central District to accommodate the Project.

These Guiding Principles are:

- 1) *Growth will be targeted to serve community needs and enhance the quality of life. Higher density development will be directed away from residential neighborhoods and into the Central District, Transit Villages, and Neighborhood Villages. These areas will have a diverse housing stock, job opportunities, exciting districts with commercial and recreational uses, and transit opportunities. New development will build upon Pasadena's tradition of strong sense of place, great neighborhoods, gardens, plazas, parks, and trees.*

The Project would provide senior living facilities and several related amenities that are acutely needed in the City and wider region as the U.S. population is generally living longer and a greater proportion of the population is considered senior or elderly with the large "boomer" segment, in particular, reaching this threshold. The medical office building would be robustly employment-generating and be located near the abundant health care land uses on Fair Oaks Avenue, providing an efficient synergy. These uses would therefore serve community needs and enhance quality of life, not limited to seniors, for residents of Pasadena and beyond.

- 2) *Pasadena's historic resources will be preserved. Citywide, new development will be in harmony with and enhance Pasadena's unique character and sense of place. New construction that could affect the integrity of historic resources will be compatible with, and differentiated from, the existing resource.*

An historic resources variance is being sought by the Applicant to preserve and adaptively reuse two previously recorded historic structures on the site (501 and 523 South Arroyo Parkway). Specifically, the Applicant is requesting an increase in allowable building height to offset the reduction in developable area due to preserving the two historic structures. The City provides incentives to owners of historic properties, including several as part of the zoning code. The zoning code incentives are consistent with the General Plan, which directs the City to implement flexible zoning regulations to promote the preservation of historic properties. This variance is being considered consistent with the General Plan as well as the City's historic preservation program, which promotes the identification, evaluation, rehabilitation, adaptive use, and restoration of historic structures. Within the zoning code, a purpose of a planned development (PD) district is to "encourage the preservation of serviceable existing structures of historic value or artistic merit by providing the opportunity

¹ Of this, a total of 338,376 sf would be new development in Buildings A and B.

to use them imaginatively for purposes other than that for which they were originally intended.” This provision facilitates the adaptive re-use of historic resources and encourages their long-term preservation on large sites designated for new development, as is the case with the Project. Mitigation measure (MM) CUL-1 requires that the Project Applicant engage with a licensed architect and/or engineer that meets the SOI’s Professional Qualifications Standards to develop a series of protection interventions and protocols that would preserve the two historical resources on the Project site – 501 and 523 South Arroyo Parkway – during construction activities. These protocols shall take into consideration the protection of and security of both resources, particularly the preservation of the character-defining features through the installation of physical protective barriers around each resource and the creation of site protocols that will eliminate the potential for physical damage resulting from impacts associated with construction and transport of equipment. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment would reduce impacts to a less than significant level. Therefore, the proposed variance for historic resources and related PD Plan is consistent with the City’s policies to preserve and protect historic resources.

- 3) *Pasadena will be an economically vital City by providing jobs, services, revenues, and opportunities. A diverse economic base with jobs for Pasadena residents will be fostered; existing businesses will be encouraged to stay or expand; affordable housing will be provided for the labor pool; the continued fiscal health of the city will be ensured.*

The proposed uses in both Buildings A and B would be employment- and revenue-generating. Additionally, the medical office and assisted living uses would provide services to the community. As such, the Project provides opportunities for both potential employees and existing and future residents of the City.

- 4) *Pasadena will be a socially, economically, and environmentally sustainable community. Safe, well designed, accessible and human-scale residential and commercial areas will be provided where people of all ages can live, work and play. These areas will include neighborhood parks, urban open spaces and the equitable distribution of public and private recreational facilities; new public spaces will be acquired. Human services will be coordinated and made accessible to those who need them.*

Providing adequate care and housing for the senior community is a critical component of being a socially sustainable community. The higher density of land uses on the Project site compared to the existing condition is both economically and environmentally sustainable, particularly due to the site’s proximity to bus and light rail transit facilities. The urban public spaces proposed as part of the Project invite gathering on the site in an aesthetically pleasing and safe environment whereas the existing site conditions are disjointed and do not provide open spaces for gathering not associated with a restaurant.

The proposed building facades incorporate numerous window openings to provide views and to avoid blank, massive-looking building faces. The facades would also be articulated with patios, window shades, and varying surface treatments to provide variation and break up the surface of the buildings. Portions of both proposed buildings would be set back from the widest part of the building envelope and some portions of the buildings would extend only to Level 4 and Level 6. Additionally, the ground floor would be slightly taller than the remaining levels, at 15 feet high. This would act to differentiate the ground floor and, combined with some unique architectural features for this level, create a human-scale and pedestrian-friendly environment.

Finally, Section 3.3, Energy, and Section 3.4, GHG Emissions, of this EIR provide analyses of energy use/efficiency and GHG emissions, respectively, with construction and operation of the Project. Section 3.3 concludes that construction and operation of the Project would not result in wasteful, inefficient, or unnecessary construction of energy resources, nor conflict with or obstruct the applicable State or local plans for renewable energy and energy efficiency. As discussed above, Section 3.4 of this EIR concludes that the Project would be consistent with State, regional, and City plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs. Refer to these sections of this EIR for the complete analysis of these topics.

- 5) *Pasadena will be a City where people can circulate without cars. Specific plans in targeted development areas will emphasize a mix of uses, pedestrian activity, and transit; public and private transit will be made more available; neighborhood villages and transit villages will reduce the need for auto use.*

While this has been sometimes interpreted to mean the City wants circulation with an absence of cars, what this realistically means is that the City can be navigated without cars if desired. This is in contrast to a car-first culture, where primacy of vehicular circulation is typical with alternative transportation modes being limited or inaccessible. Placing the proposed land uses and a higher density of land uses than existing on the site near transit, regardless of the amount of parking provided, supports this principle.

The Project would facilitate senior residents being able to shop for groceries and household items, attend some medical appointments, and dine at on-site buildings that would be accessible even to those with mobility aids. Additionally, there are abundant dining options and other retail/commercial facilities within walking distance of the Project site. Within walking distance, light rail/bus ride, or a short drive/rideshare, there are medical facilities, including Huntington Hospital and emergency rooms; additional restaurants, shopping, and services; and numerous cultural amenities, such as ArtCenter, Pasadena Playhouse, Pasadena Civic Center, museums, theater, and music venues. As such, implementation of the Project would enable the site to become an active part of the neighborhood fabric.

- 6) *Pasadena will be a cultural, scientific, corporate, entertainment, and educational center for the region. Long-term growth opportunities will be provided for existing institutions; a healthy economy will be fostered to attract new cultural, scientific, corporate, entertainment and educational institutions.*

The proposed uses in both Buildings A and B support the City being a corporate center. Medical office uses have the potential to also support scientific research, depending on the tenants that occupy the space. Adding medical office uses on the site also supports the growing medical office cluster immediately to the west in the nearby South Fair Oaks Specific Plan Area along Raymond Avenue and South Fair Oaks Avenue. As discussed above under principle 5, the Project site is within walking distance, light rail/bus ride, or a short drive/rideshare to extensive cultural and educational offerings within the City.

- 7) *Community participation will be a permanent part of achieving a greater City. Citizens will be provided with timely and understandable information on planning issues and projects; citizens will directly participate in shaping plans and policies for Pasadena's future.*

The City's environmental review process for the Project has met, and exceeded, the requirements in CEQA and the State CEQA Guidelines for scoping and noticing. The City held two scoping meetings, including one with Planning Commission. As per City

standards, the hearings for the Project will be public, where citizens may comment on the Project and make their views known further and above than what has already occurred.

- 8) *Pasadena is committed to public education and a diverse educational system responsive to the broad needs of the community.*

The Project would neither support nor conflict with this principle. No public or private educational facilities are included in the Project; however, no educational facilities are currently located on the site. It is noted that ArtCenter College of Design South Campus facilities are located within ½-mile of the Project site on Arroyo Parkway and Raymond Avenue to the south and southwest, respectively. ArtCenter Extension offers non-degree courses for adults, teens, and kids.

The City's General Plan also includes goals and policies that have the purpose of avoiding or mitigating an environmental effect; for the City of Pasadena, these are focused on historic resources, GHG emissions/sustainability, and trees/open space. The discussion below presents some applicable General Plan goals and policies followed by a discussion of how the Project relates to those goals and policies. As shown, the Project would not conflict with the General Plan with regard to goals and policies adopted to avoid or reduce an environmental effect.

Goal 8. Historic Preservation. Preservation and enhancement of Pasadena's cultural and historic buildings, landscapes, streets and districts as valued assets and important representations of its past and a source of community identity, and social, ecological, and economic vitality.

Policy 8.1 Identify and Protect Historic Resources. Identify and protect historic resources that represent significant examples of the City's history.

Policy 8.4 Adaptive Reuse. Encourage sensitive adaptive re-use including continuing the historic use of historic resources to achieve their preservation, sensitive rehabilitation, and continued economic and environmental value.

Policy 8.5 Scale and Character of New Construction in a Designated Landmark and Historic Districts. Promote an architecturally sensitive approach to new construction in Landmark and Historic districts. Demonstrate the proposed project's contextual relationship with land uses and patterns, spatial organization, visual relationships, cultural and historic values, and relationships in height, massing, modulation, and materials.

Section 3.2, Cultural and Paleontological Resources, of this EIR provides an analysis of impacts to historic resources. A Historical Resource Assessment (HRA) was prepared for the Project site (refer to Appendix C-1) that analyzed all existing buildings on the site over 45 years of age to determine whether or not they were eligible historic resources and, for those buildings determined to be historic (501 and 523 South Arroyo Parkway), analyzed whether implementation of the Project would result in a significant impact to those resources. As discussed in Section 3.2, while the Project's tenant improvements do not anticipate demolishing, moving, or making major alterations to these historic resources, these plans remain conceptual and have not yet been finalized. Therefore, there may be a potential for impact, and MM CUL-1 (described above) would be required. Additionally, the HRA assessed whether the Project's scale, massing, and design would result in an indirect impact to these historic resources. The HRA determined there would not be a significant impact related to development of the proposed Buildings A and B in proximity to the historic buildings on the site. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment would reduce impacts to a less than significant level. With implementation of MM CUL-1 and MM NOI-

1, it was determined there would be a less than significant impact to historic resources. Based on this assessment, it can be concluded that the Project would not conflict with applicable goals and policies related to historic resources and their preservation.

Goal 10. City Sustained and Renewed. Development and infrastructure practices that sustain natural environmental resources for the use of future generations and, at the same time, contribute to the reduction of greenhouse gas emissions and impacts on climate change.

Policy 10.1 Environmental Quality and Conservation. Establish Pasadena as a leader on environmental stewardship efforts, including air quality protection, energy and water efficiency, renewable energy standards, natural resource conservation, and greenhouse gas emission standards in the areas of energy, water, air and land.

Policy 10.4 Sustainable Building Practices. Foster sustainable building practices and processes specified by the City's Green Building Code by incorporating energy and water savings, toxic and solid waste reduction strategies into the building of new structures and remodeling of existing structures.

Policy 10.6 Adaptive Reuse. Encourage adaptive reuse of structures, including non-historic structures, as a means of supporting environmental sustainability.

Section 3.4, GHG Emissions, provides an analysis of GHG emissions including the consistency of the Project with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. As concluded in Section 3.4 of this EIR, the Project would be consistent with the City's Climate Action Plan (CAP), SCAG's 2020–2045 RTP/SCS *Connect SoCal*, the California Air Resources Board (CARB), California's Climate Change Scoping Plan (Scoping Plan), and Statewide GHG reduction goals for 2030 or 2050 identified in Executive Order (EO) S-3-05 and Senate Bill (SB) 32. Also, as discussed above, Section 3.3, Energy, of this EIR concludes that construction and operation of the Project would not result in wasteful, inefficient, or unnecessary construction of energy resources, nor conflict with or obstruct the applicable State or local plans for renewable energy and energy efficiency. Based on these analyses, it can be concluded that the Project would not conflict with applicable goals and policies related to GHG emissions and sustainability as it relates to energy efficiency.

Policy 10.13 Urban Forest. Maintain and plant additional trees along the City's sidewalks, civic places, parks, and in private developments to support the health and diversity of wildlife, sequester GHG emissions, and contribute to the reduction of the urban heat-island.

The analysis of the proposed tree removals pursuant to the City's "City Trees and Tree Protection Ordinance" (codified in Chapter 8.52 of the PMC) was included in Section 2.4, Biological Resources, of the Initial Study (refer to Appendix A-1) prepared for the Project. As discussed, the Urban Forestry section of the City's Public Works Department typically requires a fee, dependent on the size of the tree(s) being removed, to be remitted into the City's street tree fund. For the Project, a planned condition of approval calls for planting of one new street tree along both Arroyo Parkway and California Boulevard. The Project would also include a total of 25 trees in above-grade planters within the site. With compliance with the Project's conditions of approval, the Project would not conflict with the City's tree protection ordinance and there would be a less than significant impact. Project implementation would result in a net gain in the urban forest, with no loss of street trees and a greater amount of landscaping at ground level and on upper levels of Building B than in the existing condition. Based on this analysis, it can be concluded that the Project would not conflict with applicable goals and policies related to the urban forest.

Based on the Project's consistency with the land use designation for the site, furtherance of applicable Guiding Principles of the Land Use Element, and applicable General Plan policies that

focus on avoiding or reducing an environmental impact, the Project would be considered consistent with the General Plan.

CDSP and Zoning Code

The Project site is zoned CD-6 (Central District, Arroyo Corridor/Fair Oaks subdistrict). The City considers the Central District to be Pasadena's urban core, and the CDSP includes a "diverse mix of land uses designed to create the primary business, financial, retailing, and government center of the City" (Pasadena 2004). The CDSP includes both Public Realm and Private Realm Design Guidelines, which apply to all development in this district, including the Project. The CDSP also provides District-wide land use, mobility, and urban design concepts. The CDSP identifies sub-districts, and within the sub-districts, precincts that include more specific goals, policies, and standards targeted toward the vision for each neighborhood.

The site is in the Arroyo Corridor Transition precinct within the Arroyo Corridor/Fair Oaks sub-district, which is an important gateway to Downtown Pasadena that also supports a broad, but rather undefined, mixture of uses at the periphery of the urban core. The objective of the Arroyo Corridor/Fair Oaks sub-district is to establish Arroyo Parkway as a visually appealing entrance corridor, as well as to provide an attractive opportunity for employment-generating uses adaptable to changing economic conditions, such as arts, technology, and knowledge-based enterprise, within a revitalized low-scale, mixed-use setting at the periphery of Downtown Pasadena. The emphasis of the Arroyo Corridor Transition precinct is the transitional character of the area towards more pedestrian and transit-oriented development with a mix of land uses including residential, commercial, and employment (Pasadena 2004). The Project would include this mix of land uses—senior residents, commercial, and employment—in one location thereby supporting the transition from single-use parcels and disjointed, disparate land uses to a cohesive mix of uses that are near transit and support pedestrian accessibility within and through the site.

The Project would establish a PD zoning district (via a zone change from CD-6 to PD-39) for the site and requires adoption of a PD Plan. Adoption of a PD zoning district simultaneously establishes applicable land use regulations and development standards that are specific to the newly established zoning district. The regulations and standards that dictate allowed and conditionally allowed land uses and development would be prescribed in the accompanying PD Plan.

Within the Arroyo Corridor/Fair Oaks sub-district, building height is limited to 50 feet, or 65 feet using height averaging. As discussed previously, the Applicant is requesting a variance for historic resources (described above in Section 3.6.2) to increase the allowable building height to offset the reduction in developable area due to preserving the two historic structures. The maximum height of all proposed structures would be one of the land use regulations prescribed in the PD Plan prepared by the City.

The review process of a new PD Application requires input from the City's Design Commission, Planning Commission, and City Council. The City's PD process is detailed above in Section 3.6.2. As discussed, the PD Plan, implemented via the zone change, would define all aspects of Project design and cannot be deviated from with further discretionary action, and related environmental review. With approval of the PD application and PD Plan (including approval of the Affinity Project, zoning map amendment to rezone the property from CD-6 to PD-39, variance for historic resources for building height, and Design Review), the proposed Project would be compatible with the City's zoning designations and Zoning Code.

Section 3, Policy Framework of the CDSP includes planning objectives applicable to new development in the Specific Plan area. The CDSP has a total of 33 objectives associated with the 7 General Plan Guiding Principles. The CDSP objectives that correspond with each Guiding

Principles are summarized below, followed by discussion, with focus on the purpose of avoiding or mitigating an environmental effect, where relevant.

- 1) *Summary of CDSP Guiding Principle 1 and Associated Objectives: Promoting growth appropriately and enhancing the Downtown through the development of multi-story buildings with a variety of complementary commercial and/or residential uses in underutilized areas with higher development capacity.*

The Project would redevelop an underutilized site with transit and pedestrian accessibility multi-story buildings that provide complementary commercial, assisted living, and medical office uses. The Project integrates two existing historic structures with the ground floor layout designed to provide spacing and setbacks to blend the scales of the existing and proposed structures.

- 2) *Summary of Guiding Principle 2 and Associated CDSP Objectives: Preservation of the City's historic character and environment which would be accomplished through preservation and integration of Pasadena's historic resources as part of a complementary development that reduces the risk of resource demolition, deterioration by neglect, and/or impacts from natural circumstances.*

As discussed previously, an historic resources variance is being sought by the Applicant to preserve and adaptively reuse two previously recorded historic structures on the site (501 and 523 South Arroyo Parkway). Specifically, the Applicant is requesting an increase in allowable building height to offset the reduction in developable area due to preserving the two historic structures. This variance is being considered consistent with the General Plan as well as the City's historic preservation program, which promotes the identification, evaluation, rehabilitation, adaptive use, and restoration of historic structures. Within the zoning code, a purpose of a PD district is to "encourage the preservation of serviceable existing structures of historic value or artistic merit by providing the opportunity to use them imaginatively for purposes other than that for which they were originally intended." This provision facilitates the adaptive re-use of historic resources and encourages their long-term preservation on large sites designated for new development, as is the case with the Project.

An HRA was prepared for the Project site (refer to Appendix C-1) that analyzed whether implementation of the Project would result in a significant impact to historic resources. As discussed in Section 3.2 of this Draft EIR, while the Project's tenant improvements do not anticipate demolishing, moving, or making major alterations to these historic resources, these plans remain conceptual and have not yet been finalized. Therefore, there may be a potential for impact, and MM CUL-1 (described above) would be required. Additionally, the HRA assessed whether the Project's scale, massing, and design would result in an indirect impact to these historic resources. The HRA determined there would not be a significant impact related to development of the proposed Buildings A and B in proximity to the historic buildings on the site. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment would reduce impacts to a less than significant level. With implementation of MM CUL-1 and MM NOI-1, it was determined there would be a less than significant impact to historic resources. Based on this assessment, it can be concluded that the Project would not conflict with applicable objectives related to historic resources and their preservation.

- 3) *Summary of CDSP Guiding Principle 3 and Associated Objectives: Supporting economic growth and sustainability by providing jobs, services, revenues, and opportunities for the City's economic vitality and fiscal health.*

As discussed previously, the proposed uses in both Buildings A and B would be employment- and revenue-generating. Additionally, the medical office and assisted living uses would provide services to the community. As such, the Project provides opportunities for both potential employees and existing and future residents of the City.

- 4) *Summary of CDSP Guiding Principle 4 and Associated Objectives: Creating a thriving community that meets basic needs and provides opportunities for wellness and quality of life through improving Pasadena's infrastructure and urban form through modernized buildings that are energy- and water-efficient, and the development of the area's urban forest.*

Providing adequate care and housing for the senior community is a critical component of a City that is meeting the basic needs for all segments of its population. The Project would facilitate senior residents being able to shop for groceries and household items, attend some medical appointments, and dine at on-site buildings that would be accessible even to those with mobility aids. There are abundant dining options and other retail/commercial facilities within walking distance of the Project site. Within walking distance, light rail/bus ride, or a short drive/rideshare, there are medical facilities, including Huntington Hospital and emergency rooms; additional restaurants, shopping, and services; and numerous cultural amenities, such as ArtCenter, Pasadena Playhouse, Pasadena Civic Center, museums, theater, and music venues. As such, implementation of the Project would enable the site to become an active part of the neighborhood fabric.

As discussed, for the Project, a planned condition of approval calls for planting of one new street tree along both Arroyo Parkway and California Boulevard. The Project would also include 25 trees in above-grade planters within the site. With compliance with the conditions of approval, the Project would not conflict with the City's tree protection ordinance and there would be a less than significant impact. Implementation of the Project would result in a net gain in the urban forest, with no loss of street trees and a greater amount of landscaping at ground level and on upper levels of Building B than in the existing condition. Based on this analysis, it can be concluded that the Project would not conflict with applicable objectives related to the urban forest.

- 5) *Summary of CDSP Guiding Principle 5 and Associated Objectives: Providing a community that supports efficient transportation and multi-modal options through development of land uses that are pedestrian friendly and transit-accessible*

As discussed previously, the higher density of land uses on the Project site compared to the existing condition is both economically and environmentally sustainable, particularly due to the site's proximity to bus and light rail transit facilities.

- 6) *Summary of CDSP Guiding Principle 6 and Associated Objectives: Supporting institutional growth through development of commercial uses and quality medical and assisted living uses.*

The Project would support institutional growth by providing high-quality redevelopment of the site with complementary commercial, assisted living, and medical office uses. Adding medical office uses on the site also supports the growing medical office cluster immediately to the west in the nearby South Fair Oaks Specific Plan Area along Raymond Avenue and South Fair Oaks Avenue.

- 7) *Summary of CDSP Guiding Principle 7 and Associated Objectives: Enhancing a local community identify through supporting the continued modernization and development of the Arroyo Parkway as a major commercial corridor.*

As discussed previously, the higher density of land uses on the Project site compared to the existing condition is both economically and environmentally sustainable, particularly due to the site's proximity to bus and light rail transit facilities and underutilized condition. The urban public spaces proposed as part of the Project invite gathering on the site in an aesthetically pleasing and safe environment whereas the existing site conditions are disjointed and do not provide open spaces for gathering not associated with a restaurant.

The proposed building facades incorporate numerous window openings to provide views and to avoid blank, massive-looking building faces. The facades would also be articulated with patios, window shades, and varying surface treatments to provide variation and break up the surface of the buildings. Portions of both proposed buildings would be set back from the widest part of the building envelope and some portions of the buildings would extend only to Level 4 and Level 6. Additionally, the ground floor would be slightly taller than the remaining levels, at 15 feet high. This would act to differentiate the ground floor and, combined with some unique architectural features for this level, create a human-scale and pedestrian-friendly environment. Therefore, the Project would support Arroyo Parkway continuing to modernize and be a major commercial corridor in the City.

SCAG 2020–2045 RTP/SCS

As discussed above, the Project would not require a General Plan amendment and would be consistent with the Land Use Element's Guiding Principles and applicable goals and policies that pertain to environmental effects. Additionally, as the Project is an urban infill development located within both a High-Quality Transit Area (HQTA) and a Transit Priority Area (TPA), the proposed land uses would be consistent with the applicable goals of the 2020–2045 RTP/SCS. The Project would increase density, including senior housing, in an area within ½-mile of two light rail stations (Fillmore and Del Mar). As discussed above, the Project would enable senior residents to shop for groceries and household items, attend some medical appointments, and dine at on-site buildings that would be accessible even to those with mobility aids. Additionally, there are abundant dining options and other retail/commercial facilities within walking distance of the Project site. With a light rail and or short drive/rideshare, abundant dining, entertainment, and services in the City are accessible from the site. The Project would also provide bicycle parking and bicycle serving amenities, and electric car charging would be provided in the subterranean parking garage. Furthermore, the Project would include this mix of land uses—senior residents, commercial, and employment—in one location thereby supporting the transition from single-use parcels and disjointed, disparate land uses to a cohesive mix of uses that are near transit and support pedestrian accessibility within and through the site. As such, the Project would promote and maximize regional mobility, livability, prosperity, and sustainability compared to the existing uses on the site and contribute to a healthier community and region as a whole.

As discussed in Section 3.2, Air Quality, the Project would not result in a conflict with or obstruct implementation of the applicable air quality plan—South Coast Air Quality Management District's (SCAQMD) 2016 Air Quality Management Plan (AQMP)—nor result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or State ambient air quality standards (AAQS). Accordingly, the Project is consistent with SCAG's 2020–2045 RTP/SCS as it regards land use and transportation patterns that, in turn, help CARB achieve its air quality attainment goals as defined in the applicable State Implementation Plan (SIPs). As discussed above, Section 3.4, GHG Emissions, determined the Project would be consistent with the City's CAP, SCAG's 2020–2045 RTP/SCS, CARB, California's Scoping Plan, and Statewide GHG reduction goals for 2030 or 2050. As discussed in Section 3.9, Transportation, using the City's Transportation Demand Model, the Pasadena Department of Transportation (DOT) determined that the Project would not exceed any of the California Environmental Quality Act (CEQA) transportation thresholds defined in the City's

Transportation Impact Analysis Guidelines (TIA Guidelines), including vehicle trips (VT) per capita and vehicle miles traveled (VMT) per capita. SCAG's 2020–2045 RTP/SCS has a focus on transit-oriented development as a means to reduce VMT to improve air quality, reduce GHG emissions, and improve mobility.

The Project would result in a less than significant impact on any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of consistency with land use plans, policies, or regulations adopted to avoid or mitigate an environmental impact for the Project with Building A Residential/Commercial would be essentially the same as that of the Project, with some differences focused on the provision of multi-family housing instead of medical office space. The scale, massing, and site layout for the Project with Building A Residential/Commercial would be the same as the Project.

Pasadena General Plan

As discussed for the Project, the High Mixed-Use General Plan land use category allows maximum densities of 3.0 FAR and 87 du/acre and the site would allow up to 434,559 sf of floor area and up to 289 dwelling units. Development of the Project with Building A Residential/Commercial would also result in a total of 417,929 sf of floor area (aboveground) but would include 289 dwelling units balanced between market rate apartments/condominiums in Building A and independent senior living units in Building B. The Project with Building A Residential/Commercial would not require a General Plan amendment.

As included above for the Project, a consistency analysis of the Project with Building A Residential/Commercial with the Land Use Element's Guiding Principles is also provided herein:

These Guiding Principles are:

- 1) *Growth will be targeted to serve community needs and enhance the quality of life. Higher density development will be directed away from residential neighborhoods and into the Central District, Transit Villages, and Neighborhood Villages. These areas will have a diverse housing stock, job opportunities, exciting districts with commercial and recreational uses, and transit opportunities. New development will build upon Pasadena's tradition of strong sense of place, great neighborhoods, gardens, plazas, parks, and trees.*

The Project with Building A Residential/Commercial would provide senior living facilities and several related amenities that are acutely needed in the City and wider region as the U.S. population is generally living longer and a greater proportion of the population is considered senior or elderly with the large "boomer" segment, in particular, reaching this threshold. The ground floor commercial uses in Building A would also be employment-generating, and the housing provided under this scenario is also acutely needed in the region. These uses would therefore serve community needs and enhance quality of life, not limited to seniors, for residents of Pasadena and beyond.

- 2) *Pasadena's historic resources will be preserved. Citywide, new development will be in harmony with and enhance Pasadena's unique character and sense of place. New construction that could affect the integrity of historic resources will be compatible with, and differentiated from, the existing resource.*

An historic resources variance is being sought by the Applicant to preserve and adaptively reuse two previously recorded historic structures on the site (501 and 523 South Arroyo Parkway). Specifically, the Applicant is requesting an increase in allowable building height to offset the reduction in developable area due to preserving the two historic structures. The City provides incentives to owners of historic properties, including several as part of the zoning code consistent with the General Plan, which directs the City to implement flexible zoning regulations to promote the preservation of historic properties. This variance is being considered consistent with the General Plan as well as the City's historic preservation program, which promotes the identification, evaluation, rehabilitation, adaptive use, and restoration of historic structures. Within the zoning code, a purpose of a PD district is to "encourage the preservation of serviceable existing structures of historic value or artistic merit by providing the opportunity to use them imaginatively for purposes other than that for which they were originally intended." This provision facilitates the adaptive re-use of historic resources and encourages their long-term preservation on large sites designated for new development, as is the case with the Project. Additionally, MM CUL-1 requires that the Project Applicant engage with a licensed architect and/or engineer that meets the SOI's Professional Qualifications Standards to develop a series of protection interventions and protocols that would preserve the two historical resources on the Project site – 501 and 523 South Arroyo Parkway – during construction activities. These protocols shall take into consideration the protection of and security of both resources, particularly the preservation of the character-defining features through the installation of physical protective barriers around each resource and the creation of site protocols that will eliminate the potential for physical damage resulting from impacts associated with construction and transport of equipment. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment would reduce impacts to a less than significant level. Therefore, with implementation of required mitigation, the proposed variance for historic resources and related PD Plan is consistent with the City's policies to preserve and protect historic resources.

- 3) *Pasadena will be an economically vital City by providing jobs, services, revenues, and opportunities. A diverse economic base with jobs for Pasadena residents will be fostered; existing businesses will be encouraged to stay or expand; affordable housing will be provided for the labor pool; the continued fiscal health of the city will be ensured.*

The proposed ground floor commercial uses in Building A and all uses in Building B would be employment- and revenue-generating. Also, the assisted living uses in Building B would provide services to the community. Additionally, the market-rate housing proposed in Building A in this scenario would contribute to the local economic base as their patronage may encourage existing businesses to stay and/or expand. As such, the Project with Building A Residential/Commercial provides opportunities for both potential employees and existing and future residents of the City.

- 4) *Pasadena will be a socially, economically, and environmentally sustainable community. Safe, well designed, accessible and human-scale residential and commercial areas will be provided where people of all ages can live, work and play. These areas will include neighborhood parks, urban open spaces and the equitable distribution of public and private recreational facilities; new public spaces will be acquired. Human services will be coordinated and made accessible to those who need them.*

Providing adequate care and housing for the senior community as well as market-rate housing is a critical component of being a socially sustainable community. The higher density of land uses on the Project site is both economically and environmentally

sustainable, particularly due to the site's proximity to bus and light rail transit facilities. The urban public spaces proposed as part of the Project with Building A Residential/Commercial invite gathering on the site in an aesthetically pleasing and safe environment whereas the existing site conditions are disjointed and do not provide open spaces for gathering not associated with a restaurant.

The proposed building facades incorporate numerous window openings to provide views and to avoid blank, massive-looking building faces. The facades would also be articulated with patios, window shades, and varying surface treatments to provide variation and break up the surface of the buildings. Portions of both proposed buildings would be set back from the widest part of the building envelope and some portions of the buildings would extend only to Level 4 and Level 6. Additionally, the ground floor would be slightly taller than the remaining levels, at 15 feet high. This would act to differentiate the ground floor and, combined with some unique architectural features for this level, create a human-scale and pedestrian-friendly environment.

- 5) *Pasadena will be a City where people can circulate without cars. Specific plans in targeted development areas will emphasize a mix of uses, pedestrian activity, and transit; public and private transit will be made more available; neighborhood villages and transit villages will reduce the need for auto use.*

While this has been sometimes interpreted to mean the City wants circulation with an absence of cars, what this realistically means is that the City can be navigated without cars if desired. This is in contrast to a car-first culture, where primacy of vehicular circulation is typical with alternative transportation modes being limited or inaccessible. Placing the proposed land uses and a higher density of land uses than existing on the site near transit, regardless of the amount of parking provided, supports this principle.

The Project with Building A Residential/Commercial would facilitate residents being able to shop for groceries and household items and dine at on-site buildings that would be accessible even to those with mobility aids. There are abundant dining options and other retail/commercial facilities within walking distance of the Project site. Within walking distance, a light rail/bus ride, or a short drive/rideshare, there are medical facilities, including Huntington Hospital and emergency room; additional restaurants, shopping, and services; and numerous cultural amenities, such as ArtCenter, Pasadena Playhouse, Pasadena Civic Center, museums, theater, and music venues. As such, implementation of the Project with Building A Residential/Commercial would enable the site to become an active part of the neighborhood fabric.

- 6) *Pasadena will be a cultural, scientific, corporate, entertainment, and educational center for the region. Long-term growth opportunities will be provided for existing institutions; a healthy economy will be fostered to attract new cultural, scientific, corporate, entertainment and educational institutions.*

All proposed uses in Building A and assisted living uses, and related amenities in Building B support the City being a corporate center. As discussed above under principle 5, the Project site is within walking distance, a light rail/bus ride, or a short drive/rideshare to extensive cultural and educational offerings within the City.

- 7) *Community participation will be a permanent part of achieving a greater City. Citizens will be provided with timely and understandable information on planning issues and projects; citizens will directly participate in shaping plans and policies for Pasadena's future.*

The City's environmental review process for the Project with Building A Residential/Commercial has met, and exceeded, the requirements in CEQA and the State CEQA Guidelines for scoping and noticing. The City held two scoping meetings, including one with Planning Commission. As per City standards, the hearings for the Project with Building A Residential/Commercial will be public, where citizens may comment on the project and make their views known further and above than what has already occurred.

- 8) *Pasadena is committed to public education and a diverse educational system responsive to the broad needs of the community.*

The Project with Building A Residential/Commercial would neither support nor conflict with this principle. No public or private educational facilities are included in the Project with Building A Residential/Commercial; however, no educational facilities are currently located on the site. As noted above, the ArtCenter College of Design South Campus facilities are located within ½-mile of the Project site on Arroyo Parkway and Raymond Avenue to the south and southwest, respectively. ArtCenter Extension (ACX) offers non-degree courses for adults, teens, and kids.

As discussed above, the City's General Plan also includes goals and policies that have the purpose of avoiding or mitigating an environmental effect; for the City of Pasadena, these are focused on historic resources, GHG emissions/sustainability, and trees/open space. The discussion below presents some applicable General Plan goals and policies followed by a discussion of how the Project with Building A Residential/Commercial relates to those goals and policies. As shown, the Project with Building A Residential/Commercial would not conflict with the General Plan with regard to goals and policies adopted to avoid or reduce an environmental effect.

Goal 8. Historic Preservation. Preservation and enhancement of Pasadena's cultural and historic buildings, landscapes, streets and districts as valued assets and important representations of its past and a source of community identity, and social, ecological, and economic vitality.

Policy 8.1 Identify and Protect Historic Resources. Identify and protect historic resources that represent significant examples of the City's history.

Policy 8.4 Adaptive Reuse. Encourage sensitive adaptive re-use including continuing the historic use of historic resources to achieve their preservation, sensitive rehabilitation, and continued economic and environmental value.

Policy 8.5 Scale and Character of New Construction in a Designated Landmark and Historic Districts. Promote an architecturally sensitive approach to new construction in Landmark and Historic districts. Demonstrate the proposed project's contextual relationship with land uses and patterns, spatial organization, visual relationships, cultural and historic values, and relationships in height, massing, modulation, and materials.

Section 3.2, Cultural and Paleontological Resources, of this EIR provides an analysis of impacts to historic resources, including an HRA (refer to Appendix C-1) that analyzed whether implementation of the Project with Building A Residential/Commercial would result in a significant impact to those resources. As discussed in Section 3.2, while the tenant improvements do not anticipate demolishing, moving, or making major alterations to these historic resources, these plans remain conceptual and have not yet been finalized. Therefore, there may be a potential for impact, and MM CUL-1 (described above) would be required. Additionally, the HRA assessed whether the scale, massing, and design of the Project with Building A Residential/Commercial would result in an indirect impact to these historic resources. The HRA determined there would not be a significant impact related to development of the proposed Buildings A and B in proximity

to the historic buildings on the site. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment to a less than significant level. With implementation of MM CUL-1 and MM NOI-1, it was determined there would be a less than significant impact to historic resources. Based on this assessment, it can be concluded that the Project with Building A Residential/Commercial would not conflict with applicable goals and policies related to historic resources and their preservation.

GOAL 10. City Sustained and Renewed. Development and infrastructure practices that sustain natural environmental resources for the use of future generations and, at the same time, contribute to the reduction of greenhouse gas emissions and impacts on climate change.

Policy 10.1 Environmental Quality and Conservation. Establish Pasadena as a leader on environmental stewardship efforts, including air quality protection, energy and water efficiency, renewable energy standards, natural resource conservation, and greenhouse gas emission standards in the areas of energy, water, air and land.

Policy 10.4 Sustainable Building Practices. Foster sustainable building practices and processes specified by the City's Green Building Code by incorporating energy and water savings, toxic and solid waste reduction strategies into the building of new structures and remodeling of existing structures.

Policy 10.6 Adaptive Reuse. Encourage adaptive reuse of structures, including non-historic structures, as a means of supporting environmental sustainability.

Section 3.4, GHG Emissions, provides an analysis of GHG emissions including the consistency of the Project with Building A Residential/Commercial with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs. As concluded in Section 3.4 of this EIR, the Project would be consistent with the City's Climate Action Plan (CAP), SCAG's 2020–2045 RTP/SCS *Connect SoCal*, the California Air Resources Board (CARB), California's Climate Change Scoping Plan (Scoping Plan), and Statewide GHG reduction goals for 2030 or 2050 identified in Executive Order (EO) S-3-05 and Senate Bill (SB) 32. Also, as discussed above, Section 3.3, Energy, of this EIR concludes that construction and operation of the Project with Building A Residential/Commercial would not result in wasteful, inefficient, or unnecessary construction of energy resources, nor conflict with or obstruct the applicable State or local plans for renewable energy and energy efficiency. Based on these analyses, it can be concluded that the Project with Building A Residential/Commercial would not conflict with applicable goals and policies related to GHG emissions and sustainability as it relates to energy efficiency.

Policy 10.13 Urban Forest. Maintain and plant additional trees along the City's sidewalks, civic places, parks, and in private developments to support the health and diversity of wildlife, sequester GHG emissions, and contribute to the reduction of the urban heat-island.

The analysis of the proposed tree removals pursuant to the City's "City Trees and Tree Protection Ordinance" (codified in Chapter 8.52 of the PMC) was included in Section 2.4, Biological Resources, of the Initial Study (refer to Appendix A-1) prepared for the Project with Building A Residential/Commercial. As discussed, the Urban Forestry section of the City's Public Works Department typically requires a fee, dependent on the size of the tree(s) being removed, to be remitted into the City's street tree fund. For the Project with Building A Residential/Commercial, a planned condition of approval calls for planting of one new street tree along both Arroyo Parkway and California Boulevard. The Project with Building A Residential/Commercial would also include a total of 25 trees in above-grade planters within the site. With compliance with the conditions of approval, the Project with Building A Residential/Commercial would not conflict with the City's tree protection ordinance and there would be a less than significant impact. Implementation of the

Project with Building A Residential/Commercial would result in a net gain in the urban forest, with no loss of street trees and a greater amount of landscaping at ground level and on upper levels of Building B than in the existing condition. Based on this analysis, it can be concluded that the Project with Building A Residential/Commercial would not conflict with applicable goals and policies related to the urban forest.

Based on the Project with Building A Residential/Commercial's consistency with the land use designation for the site, furtherance of applicable Guiding Principles of the Land Use Element, and applicable General Plan policies that focus on avoiding or reducing an environmental impact, the Project with Building A Residential/Commercial would be considered consistent with the General Plan.

CDSP and Zoning Code

As with the Project, the Project with Building A Residential/Commercial would establish a PD zoning district (via a Zone Change from CD-6 to PD-39) for the site and requires adoption of a PD Plan. The regulations and standards that dictate allowed and conditionally allowed land uses and development would be prescribed in the accompanying PD Plan. As discussed previously, the Applicant is requesting a variance for historic resources (described above in Section 3.6.2) to increase the allowable building height to offset the reduction in developable area due to preserving the two historic structures. The maximum height of all proposed structures would be one of the land use regulations prescribed in the PD Plan prepared by the City. With approval of the zone change from CD-6 to PD-39 and approval of the Project with Building A Residential/Commercial, including Design review, the proposed Project with Building A Residential/Commercial would be compatible with the City's zoning designations.

The City considers the Central District to be Pasadena's urban core, and the CDSP includes a "diverse mix of land uses designed to create the primary business, financial, retailing, and government center of the City" (Pasadena 2004). The CDSP includes both Public Realm and Private Realm Design Guidelines, which apply to all development in this district, including the Project with Building A Residential/Commercial. The CDSP also provides District-wide land use, mobility, and urban design concepts. The CDSP identifies sub-districts, and within the sub-districts, precincts that include more specific goals, policies, and standards targeted toward the vision for each neighborhood.

As discussed previously, the site is in the Arroyo Corridor Transition precinct within the Arroyo Corridor/Fair Oaks sub-district, which is an important gateway to Downtown Pasadena that also supports a broad, but rather undefined, mixture of uses at the periphery of the urban core. The objective of the Arroyo Corridor/Fair Oaks sub-district is to establish Arroyo Parkway as a visually appealing entrance corridor, as well as to provide an attractive opportunity for employment-generating uses adaptable to changing economic conditions, such as arts, technology, and knowledge-based enterprise, within a revitalized low-scale, mixed-use setting at the periphery of Downtown Pasadena. The emphasis of the Arroyo Corridor Transition precinct is the transitional character of the area towards more pedestrian and transit-oriented development with a mix of land uses including residential, commercial, and employment (Pasadena 2004). The Project with Building A Residential/Commercial would include this mix of land uses—senior residents, residents, commercial, and employment—in one location thereby supporting the transition from single-use parcels and disjointed, disparate land uses to a cohesive mix of uses that are near transit and support pedestrian accessibility within and through the site.

Section 3, Policy Framework of the CDSP includes planning objectives applicable to new development in the Specific Plan area. The CDSP has a total of 33 objectives associated with the 7 General Plan Guiding Principles. The CDSP objectives that correspond with each Guiding

Principles are summarized below, followed by discussion, with focus on the purpose of avoiding or mitigating an environmental effect, where relevant.

- 1) *Summary of CDSP Guiding Principle 1 and Associated Objectives: Promoting growth appropriately and enhancing the Downtown through the development of multi-story buildings with a variety of complementary commercial and/or residential uses in underutilized areas with higher development capacity.*

The Project with Building A Residential/Commercial would redevelop an underutilized and deteriorating site with transit and pedestrian accessibility multi-story buildings that provide complementary commercial, assisted living, and residential uses. The Project with Building A Residential/Commercial integrates two existing historic structures with the ground floor layout designed to provide spacing and setbacks to blend the scales of the existing and proposed structures.

- 2) *Summary of Guiding Principle 2 and Associated CDSP Objectives: Preservation of the City's historic character and environment which would be accomplished through preservation and integration of Pasadena's historic resources as part of a complementary development that reduces the risk of resource demolition, deterioration by neglect, and/or impacts from natural circumstances.*

As discussed previously, an historic resources variance is being sought by the Applicant to preserve and adaptively reuse two previously recorded historic structures on the site (501 and 523 South Arroyo Parkway). This provision facilitates the adaptive re-use of historic resources and encourages their long-term preservation on large sites designated for new development, as is the case with the Project with Building A Residential/Commercial. An HRA was prepared for the site (refer to Appendix C-1) that analyzed whether implementation of the Project with Building A Residential/Commercial would result in a significant impact to historic resources. As discussed in Section 3.2 of this Draft EIR, while the tenant improvements do not anticipate demolishing, moving, or making major alterations to these historic resources, these plans remain conceptual and have not yet been finalized. Therefore, there may be a potential for impact, and MM CUL-1 (described above) would be required. Additionally, the HRA assessed whether the Project with Building A Residential/Commercial's scale, massing, and design would result in an indirect impact to these historic resources. The HRA determined there would not be a significant impact related to development of the proposed Buildings A and B in proximity to the historic buildings on the site. Additionally, implementation of MM NOI-1, which outlines setbacks, monitoring, and (if needed) restoration related to the potential for cosmetic damage to these two buildings because of operation of vibration-causing construction equipment would reduce impacts to a less than significant level. With implementation of MM CUL-1 and MM NOI-1, it was determined there would be a less than significant impact to historic resources. Based on this assessment, it can be concluded that the Project with Building A Residential/Commercial would not conflict with applicable goals and policies related to historic resources and their preservation.

- 3) *Summary of CDSP Guiding Principle 3 and Associated Objectives: Supporting economic growth and sustainability by providing jobs, services, revenues, and opportunities for the City's economic vitality and fiscal health.*

The proposed uses in Building B the ground-floor commercial in Building A would be employment- and revenue-generating under this scenario. Additionally, the assisted living uses would provide services to the community. As such, the Project with Building A Residential/Commercial provides opportunities for both potential employees and existing and future residents of the City.

- 4) *Summary of CDSP Guiding Principle 4 and Associated Objectives: Creating a thriving community that meets basic needs and provides opportunities for wellness and quality of life through improving Pasadena's infrastructure and urban form through modernized buildings that are energy- and water-efficient, and the development of the area's urban forest.*

Providing adequate care and housing for the senior community is a critical component of a City that is meeting the basic needs for all segments of its population. The Project with Building A Residential/Commercial would facilitate residents, including senior residents, being able to shop for groceries and household items, and dine at on-site buildings that would be accessible even to those with mobility aids. There are abundant dining options and other retail/commercial facilities within walking distance of the site. Within walking distance, light rail/bus ride, or a short drive/rideshare, there are medical facilities, including Huntington Hospital and emergency rooms; additional restaurants, shopping, and services; and numerous cultural amenities, such as ArtCenter, Pasadena Playhouse, Pasadena Civic Center, museums, theater, and music venues. As such, implementation of the Project with Building A Residential/Commercial would enable the site to become an active part of the neighborhood fabric.

- 5) *Summary of CDSP Guiding Principle 5 and Associated Objectives: Providing a community that supports efficient transportation and multi-modal options through development of land uses that are pedestrian friendly and transit-accessible.*

As discussed previously, the higher density of land uses proposed on the site compared to the existing condition is both economically and environmentally sustainable, particularly due to the site's proximity to bus and light rail transit facilities.

- 6) *Summary of CDSP Guiding Principle 6 and Associated Objectives: Supporting institutional growth through development of commercial uses and quality medical and assisted living uses.*

The Project with Building A Residential/Commercial would support institutional growth by providing high-quality redevelopment of the site with complementary commercial, assisted living, and residential uses.

- 7) *Summary of CDSP Guiding Principle 7 and Associated Objectives: Enhancing a local community identify through supporting the continued modernization and development of the Arroyo Parkway as a major commercial corridor.*

As discussed previously, the higher density of land uses proposed on the site compared to the existing condition is both economically and environmentally sustainable, particularly due to the site's proximity to bus and light rail transit facilities and underutilized condition. The urban public spaces proposed as part of the Project with Building A Residential/Commercial invite gathering on the site in an aesthetically pleasing and safe environment whereas the existing site conditions are disjointed and do not provide open spaces for gathering not associated with a restaurant.

The proposed building facades incorporate numerous window openings to provide views and to avoid blank, massive-looking building faces. The facades would also be articulated with patios, window shades, and varying surface treatments to provide variation and break up the surface of the buildings. Portions of both proposed buildings would be set back from the widest part of the building envelope and some portions of the buildings would extend only to Level 4 and Level 6. Additionally, the ground floor would be slightly taller than the remaining levels, at 15 feet high. This would act to differentiate the ground floor

and, combined with some unique architectural features for this level, create a human-scale and pedestrian-friendly environment. Therefore, the Project with Building A Residential/Commercial would support Arroyo Parkway continuing to modernize and be a major commercial corridor in the City.

SCAG 2020–2045 RTP/SCS

As discussed above, the Project with Building A Residential/Commercial would not require a General Plan amendment and would be consistent with the Land Use Element's Guiding Principles and applicable goals and policies that pertain to environmental effects. Additionally, as the Project with Building A Residential/Commercial is an urban infill development located within both a High-Quality Transit Area (HQTA) and a Transit Priority Area (TPA), the proposed land uses would be consistent with the applicable goals of the 2020–2045 RTP/SCS. The Project with Building A Residential/Commercial would increase density, including senior and market-rate housing, in an area within ½-mile of two light rail stations (Fillmore and Del Mar). As discussed above, the Project would enable residents to shop for groceries and household items and dine at on-site buildings that would be accessible even to those with mobility aids. Additionally, there are abundant dining options and other retail/commercial facilities within walking distance of the site. With a light rail and or short drive/rideshare, abundant dining, entertainment, and services in the City are accessible from the site. The Project with Building A Residential/Commercial would also provide bicycle parking and bicycle serving amenities, and electric car charging would be provided in the subterranean parking garage. Furthermore, the Project with Building A Residential/Commercial would include this mix of land uses—residential, commercial, and employment—in one location thereby supporting the transition from single-use parcels and disjointed, disparate land uses to a cohesive mix of uses that are near transit and support pedestrian accessibility within and through the site. As such, the Project with Building A Residential/Commercial would promote and maximize regional mobility, livability, prosperity, and sustainability compared to the existing uses on the site and contribute to a healthier community and region as a whole.

As discussed in Section 3.2, Air Quality, the Project with Building A Residential/Commercial would not result in a conflict with or obstruct implementation of the applicable air quality plan—SCAQMD's 2016 AQMP— nor result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment under an applicable federal or State AAQS. Accordingly, the Project with Building A Residential/Commercial is consistent with SCAG's 2020–2045 RTP/SCS as it regards land use and transportation patterns that, in turn, help CARB achieve its air quality attainment goals as defined in the applicable SIPs. As discussed above, Section 3.4, GHG Emissions, determined the Project with Building A Residential/Commercial would be consistent with the City's CAP, SCAG's 2020–2045 RTP/SCS, CARB, California's Scoping Plan, and Statewide GHG reduction goals for 2030 or 2050. As discussed in Section 3.9, Transportation, using the City's Transportation Demand Model, the Pasadena DOT determined that the Project with Building A Residential/Commercial would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines, including VT per capita and VMT per capita. SCAG's 2020–2045 RTP/SCS has a focus on transit-oriented development as a means to reduce VMT to improve air quality, reduce GHG emissions, and improve mobility.

The Project with Building A Residential/Commercial would result in a less than significant impact on any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and no mitigation is required.

3.6.6 CUMULATIVE IMPACTS

Project

The cumulative impacts related to demographic growth are analyzed for the City of Pasadena. Growth and development in the City would be accompanied by potential changes in existing land uses. New development on vacant areas and underutilized lots are anticipated to be developed in accordance with the General Plan, Housing Element, and zoning code in effect at the time of each project's application. This includes consideration of variances and vehicles such as PD zoning districts, where allowable. If discretionary actions are needed, individual projects would be subject to evaluation for potential environmental impacts as required by CEQA. This review process would address potential land use and planning policy conflicts.

Projects requiring General Plan amendments or zone changes/variances would need to show consistency with the applicable goals, policies, and/or actions in the General Plan and/or Zoning Code, respectively, and thus are not expected to lead to land use incompatibilities or conflicts. Planned or required infrastructure and public facilities associated with individual projects would provide the necessary facilities and services to existing and future developments. Thus, these projects would complement the private development projects planned in the City. Therefore, the Project would not result in a cumulatively considerable impact, and no mitigation is required.

Project with Building A Residential/Commercial

The cumulative analysis of the Project with Building A Residential/Commercial would be the same as that of the Project. The change in proposed use from medical to residential in Building A does not adversely affect the consistency with the City's General Plan and zoning code. As such, the Project with Building A Residential/Commercial would also not result in a cumulatively considerable impact, and no mitigation is required.

3.6.7 MITIGATION MEASURES

No significant impacts related to land use and planning would occur, and no mitigation is required.

3.6.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.6.9 SUMMARY OF ANALYSIS

Project

The Project would not require a General Plan amendment and would be consistent with the Guiding Principles of the City's General Plan Land Use Element and numerous goals and policies related to avoiding or reducing environmental impacts. The Project would establish a PD zoning district (via a Zone Change from CD-6 to PD-39) for the site and requires adoption of a PD Plan. The regulations and standards that dictate allowed and conditionally allowed land uses and development would be prescribed in the accompanying PD Plan. The basic design of a project, including compatibility with surroundings, massing, proportion, siting, solid-to-void relationships, and compliance with applicable design guidelines is evaluated through the City's Design Review process and is a role for the City's Design Commission. A subsequent review of a proposed PD zone and PD Plan would occur at a public hearing by the Planning Commission. Therefore, with adherence to the PD Plan processes, including consideration of a variance for historic resources to increase the height of the proposed buildings, the Project would be considered consistent with the zoning code. The Project would not conflict with any land use plan, policy, or regulation

adopted for the purpose of avoiding or mitigating an environmental effect; therefore, there would be less than significant impacts.

Project with Building A Residential/Commercial

The analysis of consistency with land use plans, policies, or regulations adopted to avoid or mitigate an environmental impact for the Project with Building A Residential/Commercial would be essentially the same as that of the Project. The Project with Building A Residential/Commercial would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; therefore, there would be less than significant impacts.

3.6.10 REFERENCES

- Pasadena, City of. 2016 (January 25, amended). *Land Use Element of the Pasadena General Plan*. Pasadena, CA: the City. Land-Use-Element-2016-01-25.pdf (cityofpasadena.net).
- . 2015a (August). *Pasadena General Plan*. Pasadena, CA: the City. General Plan - Planning & Community Development Department (cityofpasadena.net).
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- . 2004 (November 8, adopted). *Central District Specific Plan*. Pasadena, CA: the City. Central District - Planning & Community Development Department (cityofpasadena.net).
- Southern California Association of Governments (SCAG). 2020 (September 3, approved). *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy*. Los Angeles, CA: SCAG. Read the Plan Adopted Final Plan - Southern California Association of Governments.

3.7 **NOISE**

This section analyzes potential noise and vibration impacts associated with the implementation of the proposed Project and Project with Building A Residential/Commercial. Information in this section is derived from the noise analysis conducted by Psomas and summarized here and the *City of Pasadena General Plan* and its Environmental Impact Report (EIR). The noise modeling data is provided in Appendix F.

3.7.1 **EXISTING CONDITIONS**

The existing noise environment in the Project area is primarily influenced by traffic noise on nearby roads and, to a lesser extent, the Metro's Gold (L) Line, which runs adjacent to the western boundary of the Project Site. The roadways contributing the most noise to the Project site are South Arroyo Parkway and East California Boulevard.

Noise Background

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, when it has adverse effects on health, or, as stated in the Pasadena Municipal Code (PMC), is unnecessary, excessive, or annoying. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

Range of Noise

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at 3 feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 PM to 10:00 PM, and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 PM and 7:00 AM. These additions are made to

account for the noise-sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Pasadena relies on the 24-hour CNEL level to assess land use compatibility with noise sources.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

Ground Absorption

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial or even noticeable noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction.

Community Response to Noise

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another 25 percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible.

Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop, and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The Federal Highway Administration (FHWA) encourages State and local governments to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that any noise impacts are minimized.

Vibration

Per the Federal Transit Administration (FTA), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. VdB serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings.

Noise Level Measurements

To determine the baseline noise level environment and to assess potential noise impacts, four short-term (20 minutes) and two long-term (24 hours) noise level measurements during typical weekday conditions were collected on September 9 and 10, 2021.

The long-term measurements were collected along the eastern Project site boundary on South Arroyo Parkway and southern site boundary along East California Boulevard where existing noise levels are highest. The average noise levels along South Arroyo Parkway adjacent to the site range from 57 to 70 dBA L_{eq} and the 24-hour weighted noise level at this location is 72 dBA CNEL. The average noise levels along East California Boulevard range from 54 to 74 dBA L_{eq} and the 24-hour weighted noise level at this location is 73 dBA CNEL. The long-term noise measurements indicate that noise levels, generated primarily by traffic, along these two roadways are very similar.

The short-term measurements were collected along the western Project site boundary adjacent to the Metro Gold (L) Line and in the parking lot in front of K9 Loft at 491 South Arroyo Parkway (south side of the Whole Foods Market building) where noise levels are less substantial than along South Arroyo Parkway and East California Boulevard. Table 3.7-1, Short-Term Ambient Noise Measurements, presents the average (L_{eq}), maximum (L_{max}), and minimum noise level (L_{min}) values that were collected at these two locations. The complete noise monitoring results are included in Appendix F.

**TABLE 3.7-1
SHORT-TERM AMBIENT NOISE MEASUREMENTS**

Location	Time	Noise Levels (dBA)			Primary Noise Source(s)
		L_{eq}	L_{max}	L_{min}	
Western Project site boundary (adjacent to Metro L Line)	12:09 PM–12:30 PM	63.8	87.4	48.7	Metro Gold (L) Line and background traffic
491 South Arroyo Parkway (adjacent to south side of Whole Foods Market)	12:32 PM–12:52 PM	61.7	76.1	48.9	Background traffic

dBA: A-weighted decibels; L_{eq} : equivalent noise level; L_{max} : maximum noise level; L_{min} : minimum noise level

As shown in Table 3.7-1, the average daytime noise levels near the site range from 62 to 64 dBA L_{eq} . These noise levels are considered typical for the site due to substantial levels of background traffic on two adjacent roadways.

Sensitive Receptors

California's General Plan Guidelines (OPR 2017) defines noise-sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Furthermore, the City of Pasadena attempts to minimize exposure to excessive noise levels to residents, workers, and visitors of Pasadena by adopting the noise-related California General

Plan Guidelines. The land use categories requiring the lowest noise thresholds are schools, libraries, churches, hospitals, and residences. Schools, libraries, churches, hospitals, and residences proximate to the Project site are referred to as the Project's "noise sensitive receptors" due to sensitivity of these uses to noise exposure. Although each land use category has a different measure of acceptable noise exposure, most of the categories listed must remain under 60-70 dBA per State and City guidelines.

The buildings and structures that surround the Project site are mostly commercial properties, including medical office buildings at 55 East California Boulevard and 333 South Arroyo Parkway, a self-storage facility at 411 South Arroyo Parkway, and a Public Radio facility at 474 South Raymond Avenue. The closest noise-sensitive receptors to the Project site include a mix-use residential complex located immediately east of the Project site at 482 South Arroyo Parkway and a hotel located at 400 South Arroyo Parkway. The closest hospital is located two blocks west of the Project site at 625 Fair Avenue Oaks (Huntington Hospital), the closest school is located 0.2-mile to the east at 405 South Euclid Avenue (Mayfield Junior School), the closest church is located 0.3-mile to the west at 500 South Pasadena Avenue (Pasadena Community Christian Fellowship), and the closest park is located 0.2 mile to the north-northwest at 275 South Raymond Avenue (Central Park).

3.7.2 RELEVANT PROGRAMS AND REGULATIONS

Public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and various other adverse physiological and social effects associated with noise.

Noise Standards

California Noise Insulation Standards

Title 24 of the *California Code of Regulations*, also known as the California Building Standards Code or, more commonly, as the California Building Code (CBC), codifies the State's noise insulation standards applicable to all occupancies throughout the State. Section 1206.4, Allowable Interior Noise Levels, of the CBC states "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan."

The 2019 California's Green Building Standards Code, also known as CALGreen, contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA L_{eq} for any hour of operation, a wall and roof-ceiling combined STC rating of 45 and exterior windows with a minimum STC rating of 40 are required (Section 5.507.4.1). Alternatively, if the interior noise levels of non-residential buildings satisfy the performance criteria of 50 dBA L_{eq} (1 hour), then the performance method to meet CALGreen standards defined in Section 5.507.4.2 has been met.

City of Pasadena General Plan Noise Element

The City of Pasadena is affected by several different sources of noise, including automobile traffic, Rose Bowl events, commercial activity, and periodic nuisances such as construction, loud parties, and other events. The Noise Element of the City's General Plan is intended to identify these sources and provide objectives and policies that ensure that noise from these sources does not create an unacceptable noise environment (Pasadena 2015). The Noise Element contains the City's guidelines for noise compatible land uses, which are presented as Table 3.7-2, City of Pasadena Guidelines for Noise Compatible Land Use.

The City's Noise Element acknowledges that noise from major roadways may affect sensitive receptors. The following policy and implementation measures are applicable to the Project and Project with Building A Residential/Commercial:

- Policy 2a** The City will encourage noise-compatible land uses along major roadways.
- Measure 1** The City will consult the guidelines for noise compatible land use shown on Table 3 of this Noise Report to guide the appropriateness of land uses relative to roadway noise.
- Measure 2** An acoustical study showing the ability to meet state noise insulation standards may be required for any development proposed in an area where the noise level exceeds the "clearly acceptable level" as determined by the City and shown on Table 3.

The Noise Element recognizes that noise generated by commercial operations, maintenance, truck deliveries, and traffic can affect adjacent residential areas and other sensitive land uses. The following objective and implementation measure are applicable to the Project and Project with Building A Residential/Commercial:

- Objective 6** The City will minimize noise spillovers from commercial and industrial operations into adjacent residential neighborhoods and other sensitive uses, while maximizing the Land Use Element's objectives to encourage mixed-use development in the Central District and other Specific Plan areas as well as to promote economic vitality.
- Measure 26** The City will warn new residents and other sensitive noise receptors about the potential for noise in the Central District and other mixed-use areas.

**TABLE 3.7-2
CITY OF PASADENA GUIDELINES FOR NOISE COMPATIBLE LAND USE**

Land Use Category	Community Noise Exposure Ldn or CNEL, DBA						
	55	60	65	70	75	80	85
Residential – Low density single family, duplex, mobile homes							
Residential – Multi-family and Mixed Commercial/ Residential Use							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							
<p> CLEARLY ACCEPTABLE</p> <p>Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirement.</p>		<p> CONDITIONALLY ACCEPTABLE</p> <p>If new construction or development proceeds, an analysis of the noise reduction requirements should be made and needed noise insulation features included in the design.</p>					
<p> NORMALLY ACCEPTABLE</p> <p>New construction or development should be undertaken after an analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.</p>		<p> NORMALLY UNACCEPTABLE</p> <p>New construction or development should generally not be undertaken, unless it can be demonstrated that an interior level of 45 dBA can be achieved.</p>					
<p>Source: Pasadena 2002.</p>							

The Noise Element recognizes that construction activity is also a source of occasional temporary nuisance noise throughout the City; that these and other such nuisance noises are common to cities; and, because of their unpredictable nature, that these activities must be addressed on a case-by-case basis. The following policies are applicable to the Project and Project with Building A Residential/Commercial:

- Policy 7b** The City will encourage limitations on construction activities adjacent to sensitive noise receptors as defined in Table 3 of this Noise Report.
- Policy 7c** The City will encourage construction and landscaping activities that employ techniques to minimize noise.

City of Pasadena Municipal Code

Chapter 9.36, Noise Restrictions, of the PMC is the City's Noise Ordinance. It is the City's policy "to prohibit unnecessary, excessive and annoying noises from all sources. Noise at certain levels is detrimental to the health and welfare of the general public". The following sections of the Noise Ordinance are applicable to the Project and Project with Building A Residential/Commercial:

9.36.040 - Ambient noise level.

- A. When "ambient noise level" is referred to in this chapter, it means the actual measured ambient noise level.
- B. Any sound level measurement made pursuant to the provisions of this chapter shall be measured with a sound level meter using the A weighting.
 1. Where the sound alleged to be offending is of a type or character set forth below, the following values shall be added to the sound level measurement of the offending noise:
 - a. Except for noise emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to the effective date of the ordinance codified herein, any steady audible tone: + 5;
 - b. Repeated impulsive noise: + 5;
 - c. Noise occurring more than 5 but less than 15 minutes per hour: - 5;
 - d. Noise occurring more than 1 but less than 5 minutes per hour: - 10;
 - e. Noise occurring less than 1 minute per hour: -20.
 2. Values of subsections (B)(1)(c), (B)(1)(d) and (B)(1)(e) of this section shall be added to the sound level measurements during daytime (6 a.m. to 11 p.m.) periods only.

9.36.050 – General noise sources.

- A. It is unlawful for any person to create, cause, make or continue to make or permit to be made or continued any noise or sound which exceeds the ambient noise level at the property line of any property by more than 5 decibels.

9.36.070 – Construction projects.

- A. No person shall operate any pile driver, power shovel, pneumatic hammer, derrick power hoist, forklift, cement mixer or any other similar construction equipment within a residential district or within a radius of 500 feet therefrom at any time other than as listed below:
 - 1. From 7:00 AM to 7:00 PM Monday through Friday;
 - 2. From 8:00 AM to 5:00 PM on Saturday; and
 - 3. Operation of any of the listed construction equipment is prohibited on Sundays and holidays.
- B. No person shall perform any construction or repair work on buildings, structures or projects within a residential district or within a radius of 500 feet therefrom in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance at any time other than as listed below:
 - 1. From 7:00 AM to 7:00 PM Monday through Friday;
 - 2. From 8:00 AM to 5:00 PM on Saturday; and
 - 3. Performance of construction or repair work is prohibited on Sundays and holidays.
- C. For purposes of this section, holidays are New Year's Day, Martin Luther King Jr. Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Day after Thanksgiving, and Christmas.

9.36.080 – Construction equipment.

It is unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 85 dBA when measured within a radius of 100 feet from such equipment.

9.36.110 – Radio, television sets and similar devices.

- A. Use Restricted. It is unlawful for any person within any residential zone of the city to use or operate any radio receiving set, musical instrument, phonograph, television set or other machine or device for the producing or reproducing of sound (between the hours of 10 PM of one day and 7 AM of the following day) in such a manner as to disturb the peace, quiet and comfort of neighboring residents or any reasonable person of normal sensitiveness residing in the area.
- B. Prima Facie Violation. Any noise level exceeding the ambient base level at the property line of any property by more than 5 decibels is deemed to be prima facie evidence of a violation of the provisions of this section.

Vibration Standards

The following vibration standards are used in this analysis to assess the construction vibration levels generated by the proposed land uses and their effects at adjacent, existing land uses to be retained on the Project site. The City's General Plan and the PMC do not identify vibration level standards.

The Federal Transit Administration provides quantitative vibration damage and vibration annoyance criteria, which have been applied in this analysis. Table 3.7-3, Construction Vibration Damage Criteria present these thresholds.

**TABLE 3.7-3
CONSTRUCTION VIBRATION DAMAGE CRITERIA**

Building Class	PPV, (in/sec)	Approximate L _v *
I. Reinforced-concrete, steel or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90
RMS velocity in decibels, VdB re 1 micro-in/ sec Source: FTA 2018.		

The building damage threshold for Class II Buildings is selected for surrounding non-historic retail buildings; the threshold for Class III buildings is selected for surrounding residential buildings; and the threshold for Class IV buildings is selected for the on-site historic structures. These thresholds represent the vibration limits for damage to buildings from continuous sources of vibration during construction activities on the Project site.

3.7.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse noise impact if it would:

Threshold 3.2a: Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, local noise ordinance, or applicable standards of other agencies.

Threshold 3.2b: Result in generation of excessive ground-borne vibration or ground-borne noise levels.

The Initial Study (provided in Appendix A-1) concluded the following thresholds related to noise were determined to result in no impacts or less than significant impacts and were not carried forward into the Draft EIR for further analysis:

- 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?

3.7.4 METHODOLOGY

Point Source Noise

The distance from the noise source to a receptor is a primary consideration in determining the actual noise level experienced at the receptor. Construction equipment can be considered to operate in two modes: stationary and mobile. Noise impacts from stationary construction equipment are assessed from the center of the equipment, while noise impacts for mobile

construction equipment are assessed as emanating from the center of the equipment activity or construction site.

Traffic Noise

The noise levels for roadways in the Project traffic study area were estimated using the Federal Highway Administration's (FHWA's) Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model determines a predicted noise level through a series of adjustments to a reference sound level. These adjustments account for traffic flows, speed, truck mix, varying distances from the roadway, length of exposed roadway, and noise shielding. The calculations do not consider the effect of any noise barriers or topography that may affect ambient noise levels. The net trip generation for the Project and Project with Building A Residential/Commercial was used to estimate off-site traffic noise generation.

Groundborne Vibration

In contrast to airborne noise, groundborne vibration is not a common environmental problem. Some common sources of groundborne vibration are construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Trains and similar rail vehicles can also produce vibration. It is unusual for vibration from sources such as buses and trucks to be perceptible. In quantifying vibration, the PPV is most frequently used to describe vibration impacts and is typically measured in inches per second (in/sec). Vibration levels that may cause annoyance to humans are described using the vibration decibel (VdB). Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source.

3.7.5 ENVIRONMENTAL IMPACTS

Threshold 3.2a **Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Project

Construction Noise

Construction of the Project would include noise generated from demolition, site preparation, grading/excavation, building construction and architectural coating activities. Construction activities are carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Construction noise levels reported in the U.S. Environmental Protection Agency's (USEPA's) *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground-clearing/demolition, excavation/grading, foundation construction, building construction and site cleanup) are based on a typical construction equipment mix for a mixed-use project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers). The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity.

Table 3.7-4, Construction Noise Levels at Surrounding Receptors, summarizes the estimated maximum and average construction noise levels at several receptors (both sensitive and non-

sensitive) for each construction phase as well as the noise level at a distance of 100 feet; which is the City's construction noise threshold (Section 9.36.080 of the PMC). Maximum noise levels represent the noise levels from construction equipment occurring nearest to the noise sensitive use/receptor. Average noise levels represent the noise exposure to sensitive uses based on the distance to the center of the Project site. Noise levels from general Project-related construction activities were evaluated based on the City's noise limit of 85 dBA at 100 feet. As shown in Table 3.7-4, Construction Noise Levels at Surrounding Receptors, construction noise levels at 100 feet from the construction area would range from 72 to 83 dBA L_{eq} . As shown, noise generation for all construction phases would be less than the 85 dBA noise limit as measured at 100 feet; and would be lower than 85 dBA for almost all receptors and/or all construction phases. Noise level reductions from intervening structures and from existing masonry walls on-site and equipment being below grade were not considered in the noise modeling. As such, actual average and maximum construction noise levels would be lower than shown in Table 3.7-4.

**TABLE 3.7-4
CONSTRUCTION NOISE LEVELS AT SURROUNDING RECEPTORS**

Receptor	Construction Phase Noise Levels (dBA)									
	Demolition/ Site Prep		Grading/ Excavation		Foundations		Building Construction		Architectural Coatings	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
Noise Level at Each Receptor Location										
482 South Arroyo Parkway	70	83	70	83	59	72	68	81	70	83
Huntington Hospital Complex	64	65	64	65	53	54	62	63	64	65
Central Park	59	61	59	61	48	50	57	59	59	61
Mayfield Junior School	62	62	62	62	51	51	60	60	62	62
KPCC ¹	86	93	86	93	75	82	84	91	86	93
Medical Building ²	72	75	72	75	61	64	70	73	72	75
Plastic Surgery + Medical Spa ³	75	83	75	83	64	72	73	81	75	83
HRC Fertility Complex ⁴	69	71	69	71	58	60	67	69	69	71
Pasadena Inn ⁵	70	73	70	73	59	62	68	71	70	73
Noise Level at 100 ft (dBA)	83		83		72		81		83	
Noise Limit at 100 ft (dBA)	85		85		85		85		85	
Exceeds Noise Limit?	No		No		No		No		No	
dBA: A-weighted decibels; Site Prep: site preparation; max: maximum noise level; avg: average noise level; ft: feet Note: Noise levels from construction activities do not consider attenuation provided by intervening structures.										
¹ Complex located at 474 South Raymond Avenue ² Medical Building at 55 East California Boulevard ³ Medical use located at 100 East California Boulevard ⁴ Medical use at 333 Arroyo Parkway ⁵ Hotel use at 400 South Arroyo Parkway										
Sources: USEPA 1971 (construction equipment noise levels); see Appendix F, Noise Modeling Data, for modeling assumptions and outputs.										

Truck trips would be needed for delivery of construction equipment and materials as well as the export of the excavated soils. Noise generated from truck trips would add to the ambient noise level generated by vehicle traffic. In general, a doubling of traffic is necessary to increase noise levels by 3 dBA. For the Project, it is anticipated that development site would result in an average of approximately 110 truck trips per day during the demolition phase and 250 truck trips day during the grading/excavation phase.¹ These truck trips would travel along local truck routes near the Project site. The City of Pasadena's Truck Route Map (DOT 2016) designates Del Mar Boulevard, Arroyo Parkway and Fair Oaks Avenue as truck routes. The addition of an average of 250 truck trips per day to roadway volumes of approximately 18,000 daily trips along Arroyo Parkway north of California Boulevard or 21,000 daily trips along California Boulevard west of Arroyo Parkway would increase roadway volumes by approximately 1 to 2 percent. A doubling of traffic volumes is required to increase traffic noise levels by 3 dBA. 3 dBA is also the lowest change in noise levels that is considered to be perceptible in outdoor environments. As such, the small increase in traffic volumes related to construction activities proximate to the Project site would not result in a perceptible increase in noise levels. Noise from truck trips associated with development of the site would cease when construction of the Project is complete.

In summary, noise from construction activities on site would be clearly audible above the existing ambient noise environment. However, construction would occur during the least noise-sensitive portions of the day, consistent with Section 9.36.070 of the PMC, nor would it exceed the City's construction noise limit of 85 dBA at 100 feet. Additionally, off-site noise from the addition of construction-related truck trips would not be discernable. There would be less than significant construction noise impacts, and no mitigation is required.

Operation

Off-Site Traffic Noise Generation

Operation of the Project would increase traffic compared to the existing uses on the site, which has the potential to increase noise levels on local roadways proximate to the site. Table 3.7-5, Net Trip Generation for the Project, summarizes the daily total trip generation and the AM and PM peak hour trip generation for the existing land uses (not including Whole Foods Market as this is not changing), the Project land uses, and the net difference.

**TABLE 3.7-5
NET TRIP GENERATION FOR THE PROJECT**

	Daily	AM Peak Hour	PM Peak Hour
Existing Uses	2,454	189	237
Proposed Uses	6,366	515	618
Net Change	3,913	326	381
Source: Pasadena 2021a.			

¹ Based on an estimated excavated export volume of 184,013 cubic yards transported by 14 cubic yard trucks which results in 13,144 truckloads. Assuming that there are two truck trips per load, there would be 26,288 one-way truck trips. These truck trips would be distributed over a grading period of 4-months with 104 workdays per month. The 253 average truck trips per day was obtained by dividing 26,288 truck trips by 104 grading days.

As shown in Table 3.7-5, the existing uses on the site generate 2,454 vehicle trips per day with 189 AM and 237 PM peak-hour trips. The Project is estimated to generate a total of 6,366 vehicle trips per day, with 515 AM and 618 PM peak hour trips. The net change in trips, when considering the traffic generated by existing land uses, is an additional 3,913 trips per day with 326 AM peak hour trips and 381 PM peak hour trips.

Table 3.7-6, Net Street segment volumes with the Project (Year 2026), on the following page summarizes the average daily trips (ADT) for several street segments on the Project site vicinity, the additional ADT attributable to the Project, and the net different as a percentage.

**TABLE 3.7-6
NET STREET SEGMENT VOLUMES WITH THE PROJECT (YEAR 2026)**

Street Segment	Existing ADT	Additional ADT	Net Change
Bellevue Dr. b/t Arroyo Prkwy. and Marengo Ave.	850	160	19%
Bellevue Dr. west of Arroyo Prkwy.	4,690	0	0%
Arroyo Prkwy. b/t Bellevue Dr. and Del Mar Blvd.	17,040	490	3%
Arroyo Prkwy. b/t Bellevue Dr. and California Blvd.	16,200	650	4%
California Blvd. b/t Raymond Ave. and Arroyo Prkwy.	17,060	900	5%
California Blvd. b/t Raymond Ave. and Fair Oaks Ave.	14,640	300	2%
Raymond Ave. b/t California Blvd. and Bellevue Dr.	9,780	600	6%
Raymond Dr. b/t California Blvd. and Pico Street	9,140	0	0%
California Blvd. b/t Arroyo Prkwy. and Marengo Ave.	24,750	1,280	5%
California Blvd. b/t Arroyo Prkwy. and Raymond Ave.	21,020	540	3%
Arroyo Prkwy. b/t California Blvd. and Bellevue Dr.	17,990	2,480	14%
Arroyo Prkwy. b/t California Blvd. Pico Street	26,540	980	4%
Arroyo Prkwy. b/t Del Mar Blvd. and Bellevue Dr.	16,220	480	3%
Arroyo Prkwy. b/t Glenarm Street and Fillmore Street	24,000	980	4%
ADT: average daily trips; b/t: between; Dr.: Drive; Prkwy.: Parkway; Ave.: Avenue; Blvd.: Boulevard			
Source: Pasadena 2021a			

As shown in Table 3.7-6, implementation of the Project would result between 0 percent and 19 percent increase in ADT. It is noted that the percent change in trips is 6 percent or below on all street segments except on (1) Arroyo Parkway between California Boulevard and (2) Bellevue Drive and on Bellevue Drive between Arroyo Parkway and Marengo Avenue. A three-decibel increase occurs when traffic volumes double or a project increases the percentage of noisy trucks on roadways. With a maximum increase of 19 percent, the increase in off-site traffic-related noise would be less than 1 decibel. This increment is not discernable to human hearing even under laboratory conditions. As such, the Project would not result in a substantial permanent change in noise levels related to off-site traffic. There would be a less than significant impact related to traffic noise, and no mitigation is required.

On-Site Stationary Noise Generation

Operational noise sources associated with the Project would include, but not be limited to, mechanical equipment (e.g., HVAC units) and landscape maintenance equipment. The City's Noise Ordinance is designed to control unnecessary, excessive, and annoying sounds from sources on private property by specifying noise levels that cannot be exceeded.

PMC Section 9.36.090, Machinery, Equipment, Fans and Air Conditioning, defines the noise level exposure limits at properties affected by specific noise sources. HVAC units and other stationary

equipment would be selected and installed to comply with the City of Pasadena's Noise Ordinance. The noise threshold for HVAC equipment is that the noise shall not exceed 5 dBA above ambient conditions at the property lines. HVAC units would be located on top of seven to eight story buildings; therefore, noise generation from the HVAC equipment would be substantially attenuated by the distance between the top of the building to the nearest receptors beyond the property lines. Additionally, the HVAC units would be situated behind parapets, which would reduce noise transmission to lower elevation receptors.

Noise from landscape maintenance would be similar to noise currently occurring at the Project site. Noise from leaf blowers is specifically addressed under Section 9.37, Leaf-Blowing Machines, of the PMC. The City limits the use of leaf-blowing machines to the least noise sensitive portions of the day, limits the use to 30 minutes per day, and sets a noise level limit of 65 dBA as measured at 50 feet. Compliance with the City's requirements would result in noise levels that are acceptable pursuant to the PMC.

The Project would also have outdoor uses such as open spaces and dining. Noise generated by these uses typically include people talking and, possibly, use of amplified music. Any noise generated within the open spaces would be substantially attenuated by the proposed structures, the elevation above the street, and the distance between the outdoor activities and the nearest property line. Also, all outdoor uses would be subject to the 5 dB noise limit established in Section 9.36.050 of the PMC.

In summary, through compliance with the City's Noise Ordinance, there would be less than significant impacts related to on-site stationary noise sources, and no mitigation is required.

Project with Building A Residential/Commercial

Construction Noise

Construction of the Project with Building A Residential/Commercial would result in the same construction noise generation as the Project. The only difference in construction scenario is that subterranean parking is reduced to four levels (instead of five). However, this would not affect the noise generation from the excavation activities themselves because there would be the same daily construction activities.

As discussed for the Project, at a distance of 100 feet from the Project's construction area, construction activities for the Project with Building A Residential/Commercial would generate noise levels ranging from 72 to 83 dBA L_{eq} . As shown in Table 3.7-4 above, noise generation for all construction phases would be less than the City's 85 dBA noise limit as measured at 100 feet.

As discussed for the Project, truck trips are needed for delivery of construction equipment and materials as well as the export of the excavated soils. For the Project with Building A Residential/Commercial, based on data provided by the Project Applicant, it is anticipated that grading and excavation of the site would result in a maximum of 10,515 truckloads of soil during the grading/excavation phase of four months. Assuming that each truckload has two trips, there would be an average of approximately 200 truck trips per day (reduced from an estimated 250 trips for the Project). The addition of 200 truck trips per day to roadway volumes of approximately 18,000 daily trips along Arroyo Parkway north of California Boulevard or 21,000 daily trips along California Boulevard west of Arroyo Parkway would increase roadway volumes by approximately 1-2 percent. A doubling of traffic volumes is required to increase traffic noise levels by 3 dBA. 3 dBA is also the lowest change in noise levels that is considered perceptible to human hearing in outdoor environments. As such, the small increase in traffic volumes related to construction activities proximate to the Project site would not result in a perceptible increase in noise levels.

After completion of Project related construction activities, noise from truck trips associated with development of the site would cease.

Therefore, as with the Project, construction of the Project with Building A Residential/Commercial would be clearly audible above the existing ambient noise environment. However, construction would occur during the least noise-sensitive portions of the day, consistent with Section 9.36.070 of the PMC, nor would it exceed the City's construction noise limit of 85 dBA at 100 feet. Additionally, off-site noise from the addition of construction-related truck trips would not be discernable. There would be less than significant construction noise impacts, and no mitigation is required.

Operation

Off-Site Traffic Noise

Operation of the proposed Project with Building A Residential/Commercial would increase traffic as compared to existing uses on the site, which has the potential to increase noise levels on local roadways proximate to the site. Table 3.7-7, Net Trip Generation for the Project with Building A Residential/Commercial, summarizes the daily total trip generation and the AM and PM peak hour trip generation for the existing land uses (not including Whole Foods Market as this is not changing), the Project land uses, and the net difference.

**TABLE 3.7-7
NET TRIP GENERATION FOR THE PROJECT WITH BUILDING A
RESIDENTIAL/COMMERCIAL**

	Daily	AM Peak Hour	PM Peak Hour
Existing Uses	2,454	189	237
Project Uses	2,494	194	217
Net Change	41	5	(20)
Source: Pasadena 2021b.			

As shown in Table 3.7-7, the Project with Building A Residential/Commercial is estimated to generate a total of 2,494 vehicle trips per day, with 194 AM and 217 PM peak hour trips. The net change in trips, when considering the traffic generated by existing land uses, is 41 additional trips per day with an increase of 5 AM peak hour trips and a reduction of 20 PM peak hour trips.

Because the Project with Building A Residential/Commercial would generate fewer daily trips than the Project, it can be concluded that this scenario would not result in a substantial permanent change in noise levels related to off-site traffic. There would be a less than significant impact related to traffic noise, and no mitigation is required.

On-Site Stationary Noise Generation

Operational noise sources associated with the Project with Building A Residential/Commercial would be essentially the same as the Project. As with the Project, through compliance with the City's Noise Ordinance, there would be less than significant impacts related to on-site stationary noise sources, and no mitigation is required.

Threshold 3.2b Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Project

Construction

As discussed previously, there are no applicable City standards for vibration-induced building damage and/or annoyance and applicable FTA criteria have been applied in this analysis.

Pile driving and blasting are generally the sources of the most severe vibration during construction. Neither pile driving nor blasting would be used during Project construction. Conventional construction equipment would be used for demolition and grading activities. Table 3.7-8, Vibration Levels for Construction Equipment, summarizes typical vibration levels measured at 25 feet during construction activities for various vibration-inducing pieces of equipment.

**TABLE 3.7-8
VIBRATION LEVELS FOR CONSTRUCTION EQUIPMENT**

Equipment		PPV at 25 ft (in/sec)
Pile driver (impact)	upper range	1.518
	typical	0.644
Pile driver (sonic)	upper range	0.734
	typical	0.170
Vibratory roller		0.210
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003
ppv: peak particle velocity; ft: feet; in/sec: inch(es) per second. Source: FTA 2018.		

Demolition, grading and excavation, and building construction would occur up to the property lines for much of the Project site. These construction activities would generate vibration. However, construction related vibration would not be expected to interfere with the operation of land uses proximate to the construction area. Land uses nearby (about 50 feet) include restaurants, moving and storage facilities, a supermarket, and other non-vibration sensitive uses. Construction generated vibration from the Project would not interfere with their operation. However, heavy construction vehicles and activities may have the potential for cosmetic building damage.

Table 3.7-9, Vibration Levels and Building Damage at Surrounding Uses, summarizes the expected vibration level at several receptors – both on-site and off-site – for the primary vibration-generating construction equipment compared to the applicable vibration building damage threshold.

**TABLE 3.7-9
VIBRATION LEVELS AND BUILDING DAMAGE AT SURROUNDING USES**

Equipment	Vibration Levels (PPV)				
	Whole Foods Market located within the Project Site ¹	Commercial Historic Uses within the Project Site ²	Commercial Use to the West of the Project Site ³	Medical Use to the Southwest of the Project Site ⁴	Residential Use to the East of the Project Site ⁵
	(PPV at 10 ft)	(PPV at 10 ft)	(PPV at 30 ft)	(PPV at 100 ft)	(PPV at 105 ft)
Large bulldozer	0.35	0.35	0.07	0.01	0.01
Small bulldozer	0.01	0.01	0.00	0.00	0.00
Jackhammer	0.14	0.14	0.03	0.00	0.00
Loaded trucks	0.30	0.30	0.06	0.01	0.01
Threshold	0.3	0.12	0.3	0.3	0.3
Exceeds Threshold?	Yes	Yes	No	No	No

PPV: peak particle velocity; ft: feet

¹ Facility located at 465 South Arroyo Parkway
² Commercial property located at 501 & 523 South Arroyo Parkway
³ Commercial use located at 474 South Raymond Avenue
⁴ Medical use located at 100 East California Boulevard
⁵ Residential use located at 482 South Arroyo Parkway

Source: FTA 2018; see Appendix F, Noise Modeling Data, for modeling assumptions and outputs.

As shown in Table 3.7-9, the estimated vibration levels would not exceed the building damage threshold at adjacent off-site structures. However, during construction activity in close proximity (around 30 feet or less), buildings located within the Project site (i.e., Whole Foods Market and 501 and 523 South Arroyo Parkway) may be exposed vibration levels that could result in cosmetic building damage. As discussed in Section 2.0, Environmental Setting and Project Description, 501 and 523 South Arroyo Parkway are considered historic resources and are represented in Table 3.7-9 in the second column of estimated vibration levels (Commercial Historic Uses within the Project Site). Because of the age of these two structures, they are considered more susceptible to vibration-related damage than newer construction, such as Whole Foods Market, located at 465 South Arroyo Parkway. As shown, a lower threshold (0.12 compared to 0.30) is applied to these structures for consideration of vibration-inducing building damage.

As shown in Table 3.7-9, both the Whole Food Market building and the structures at 501 and 523 South Arroyo Parkway may experience vibration levels during operation of certain equipment that could cause cosmetic damage. Therefore, MM NOI-1 requires that certain construction activities/equipment are set back from these buildings, that vibration monitoring is implemented, and, if cosmetic damage does occur despite setbacks and monitoring, the Project Applicant shall be responsible for restoring the damage. With implementation of MM NOI-1, there would be less than significant impacts related to vibration causing damage to the three on-site buildings being retained.

Project with Building A Residential/Commercial

Construction of the Project with Building A Residential/Commercial would result in the same construction related vibration generation as the Project. The only difference in the construction scenario is that subterranean parking is reduced to four levels (instead of five). However, this would not affect the vibration generation from the excavation activities themselves because there would be the same daily construction activities. As with the Project, with implementation of MM NOI-1, there would be less than significant impacts for the Project with Building A

Residential/Commercial related to vibration causing damage to the three on-site buildings being retained.

3.7.6 CUMULATIVE IMPACTS

Project

Cumulative Construction Noise and Vibration

Noise and vibration generated during construction of the proposed Project would be localized and would occur intermittently for varying periods of time throughout the construction period. Short-term cumulative impacts related to ambient noise and vibration levels could occur if construction associated with the proposed Project as well as surrounding current and future development were to occur simultaneously. Noise or vibration generated by construction of the Project in combination with another project with major construction activity within approximately 1,000 feet of the site could adversely impact sensitive receptors in the vicinity of the site with a cumulative noise level greater than the noise generated solely at the Project site.

At this time there are no projects within 1,000 feet that are anticipated to be constructed concurrently with the Project that have the potential to generate cumulatively considerable noise or vibration levels. The City also limits noise from construction equipment to 85 dBA at 100 feet. Because construction noise would be substantially attenuated prior to reaching land uses proximate to the Project site and imposes a noise limit on construction equipment, cumulative noise from both construction projects would not be substantially different than that generated by the Project. As such, the Project would not result in a cumulatively considerable construction noise and vibration impact.

Cumulative Operational Noise

Cumulative traffic noise was evaluated by the City's General Plan EIR (Pasadena 2015), in which traffic noise levels were assessed for year 2015 and the buildout year of 2035 along Arroyo Parkway north of California Boulevard. Cumulative traffic noise levels were found to increase by 0.5 dBA. As discussed previously, the Project would increase traffic volumes by a maximum of 19 percent over existing conditions. This increase in traffic volumes would result in noise level increases of 1 dBA CNEL, which would not result in increases in cumulative traffic noise above the 5 dBA CNEL significance threshold used in the General Plan EIR.

Individual stationary sources of noise are regulated by the City's Municipal Code for both the Project and the Project with Building A Residential/Commercial. The stringent noise limitations established for each of these noise sources, the infrequency of occurrence, and the separation distance for these noise sources would limit cumulative noise exposure near the Project site to a less than significant level. As such, the Project would not result in a cumulatively considerable stationary noise source impact.

Project with Building A Residential/Commercial

The cumulative analysis for the Project with Building A Residential/Commercial is essentially the same as the Project. For construction noise and vibration, the only difference in the construction scenario is that subterranean parking is reduced to four levels (instead of five). However, this would not affect the construction noise and vibration generation from the excavation activities themselves because there would be the same daily construction activities. For operation, the only difference is the provision of residential instead of medical office land uses. This results in fewer daily vehicle trips. However, this would not affect the stationary source noise generation nor change the traffic noise generation to a degree that would be audible to human hearing. As such,

the Project with Building A Residential/Commercial would not result in a cumulatively considerable construction noise and vibration impact or operational noise impact.

3.7.7 MITIGATION MEASURES

MM NOI-1 The potential for vibration-induced cosmetic (i.e., not structural) damage to the structures at 465, 501, and 523 South Arroyo Parkway shall be reduced by implementing the following three steps: (1) setbacks, (2) monitoring, and (3) restoration (if applicable).

- (1) The Project Applicant shall be responsible for ensuring the construction specifications include the following language: "Construction equipment shall observe setback distances of 30 feet from any of the three on-site buildings being retained (Whole Foods Market and 501 and 523 South Arroyo Parkway) for equipment equivalent to a large bulldozer (29,000 pounds or more) and 20 feet for jackhammers and loaded trucks. Small dozers and other equipment with vehicle weights of less (29,000 pounds) are not anticipated to result in substantial levels of vibration that could cause building damage".
- (2) The Project Applicant shall be responsible for placing a vibration monitor in each of the three on-site buildings to remain on the site. The contractor would need to have vibration measurements taken on the site when heavy equipment or vibration intensive activities occurs near (i.e., less than 30 feet horizontal distance) to these three buildings. Vibration measurements will be recorded and compared to the vibration thresholds appropriate for the building that may be impacted. Vibration records shall be submitted to the City once a week. The appropriate vibration thresholds are as follows: 0.12 peak particle velocity (PPV) for 501 and 523 South Arroyo Parkway and 0.30 PPV for Whole Foods Market. The Applicant shall be responsible for preparing a Monitoring Plan, describing the proposed location of vibration monitors, the timing of monitoring, collecting vibration records (including date, time, activity that precipitated the monitoring, and who recorded the vibration level), to whom and when the monitoring records will be submitted, and any remedial actions needed because of vibration readings. The Monitoring Plan is subject to review and approval by City staff and will be submitted prior to initiation of any construction activity on the site.

If vibration levels are below these thresholds, it is permissible to have construction activity with large (over 29,000 pounds) equipment, jackhammers, and/or loaded trucks within the setback distances included in item 1 above. Additionally, vibration monitoring shall guide construction activity near the perimeter of these buildings during subterranean excavation and construction activity. If vibration levels are found to exceed the applicable threshold, then the associated construction activity shall immediately halt, and alternative methods for achieving the construction activity shall be determined and employed to reduce the construction-generated vibration exposure to the building(s) to less than the thresholds. While the specific alternative methods to be employed cannot be foreseen, as it would be depending on situation-specific factors, the performance objective of maintaining activity that results in vibration below the applicable thresholds shall guide all decisions.

- (3) If cosmetic damage does occur to one or more of these three buildings because of vibration from Project-related construction activities despite setbacks and monitoring, the Project Applicant shall be responsible for

restoring the damage. Cosmetic damage includes things like, for example, cracks in paint/plaster, fallen plaster/stucco from a facade, and cracked glass. Specifically, any restorations to Whole Foods Market shall be implemented to return the damaged area to the same condition (e.g., materials, colors, style) as present at the start of construction. Any restorations to the buildings at 501 and 523 South Arroyo Parkway shall conform to the Secretary of the Interior's Standards for the Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Weeks and Grimmer 1995) (Standards), and the determination of whether the planned restorations is consistent with the Standards shall be made by a qualified historic preservation professional meeting the Secretary of the Interior's Professional Qualifications Standards for architectural history or historic architecture (Professional) and to the satisfaction of the City. The restorations to the historic buildings, if necessary, may be either to the conditions present before construction was initiated or, if the planned updates to these buildings are underway may be conducted to meet proposal conditions.

The City of Pasadena Planning & Community Development Department shall be responsible for ensuring these requirements are included in the construction specifications prior to any demolition activity on the site. The Project Applicant and the City's inspector assigned to the Project shall also be responsible for ensuring these measures are consistently implemented throughout the construction period.

3.7.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.7.9 SUMMARY OF ANALYSIS

Project

Construction of the Project would result in less than significant construction noise generation (see Table 3.7-4). Off-site noise from the addition of construction-related truck trips would not be audible. Estimated vibration levels when construction activities occur under the closest distance to each receptor would not exceed the vibration annoyance criteria (see Table 3.7-9) but may exceed the building damage threshold at remaining on-site structures within the Project site (i.e., Whole Foods Market and 501 and 523 South Arroyo Parkway) during construction activity in close proximity. Therefore, MM NOI-1 requires the construction specifications to include the following: "Construction equipment shall observe setback distances of 30 feet for equipment equivalent to a large bulldozer (29,000 pounds or more) and 20 feet for jackhammers and loaded trucks. Small dozers and other equipment with vehicle weights of less (29,000 pounds) are not anticipated to result in substantial levels of vibration that could cause building damage". Operation of the Project would result in less than significant operational noise, both from on-site stationary noise sources and off-site traffic noise. With implementation of MM NOI-1, there would be less than significant noise and vibration impacts related to construction and operation of the Project.

Project with Building A Residential/Commercial

The analysis of construction noise and vibration and operational noise for the Project with Building A Residential/Commercial would be essentially the same as the analysis of the Project. As discussed above, the differences in construction scenario and land uses between the two scenarios do not materially affect the results of the analysis. As with the Project, approval MM NOI-1 requires the construction specifications for the Project with Building A Residential/Commercial would be required to include the following: "Construction equipment shall

observe setback distances of 30 feet for equipment equivalent to a large bulldozer (29,000 pounds or more) and 20 feet for jackhammers and loaded trucks. Small dozers and other equipment with vehicle weights of less (29,000 pounds) are not anticipated to result in substantial levels of vibration that could cause building damage". With implementation of MM NOI-1, there would be less than significant noise and vibration impacts related to construction and operation of the Project with Building A Residential/Commercial.

3.7.10 REFERENCES

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3.8 PUBLIC SERVICES AND RECREATION

This section discusses the existing public services in the City of Pasadena and addresses potential impacts associated with the proposed Project and Project with Building A Residential/Commercial to the following services:

- Fire protection and emergency medical services (Pasadena Fire Department);
- Police protection services (Pasadena Police Department);
- School services (Pasadena Unified School District);
- Library services (Pasadena Public Library); and
- Parks and recreation services (City of Pasadena Parks, Recreation, and Community Services Department).

Information in this section is derived from the above-referenced public service providers, their websites, and the *City of Pasadena General Plan* and its Environmental Impact Report (EIR).

3.8.1 EXISTING CONDITIONS

Fire Protection

Fire protection and emergency medical services in the City are provided by the Pasadena Fire Department (PFD). The PFD is an “all-risk” fire department providing the community it protects with services that include fire suppression, emergency medical services (EMS), technical rescue (Urban Search and Rescue), and first-responder hazardous materials response. The PFD provides fire protection services with the capability of mitigating fire incidents within structures, vehicles, vegetation and the wildland-urban interface zone.

Depending on the risk, type, and location of the incident, resources can be dispatched from among the PFD’s eight advanced life support (ALS) engine companies (minimum one paramedic), five rescue ambulances staffed with two advanced life support firefighter paramedics, two trucks, and Battalion Chief. The PFD provides EMS to meet the standards set forth by the Los Angeles County Department of Health Services, Emergency Medical Services Agency, and provide 24-hour emergency response, treatment, transport of the ill and injured in the community. A 911 call for medical assistance receives a paramedic ambulance and an engine or truck, providing a minimum of two paramedic and four firefighter emergency medical technicians (EMTs), for exceptional patient care. Cross staffing provides a Type 1 Heavy Urban Search and Rescue, water tender, brush patrol, strike team command vehicle, and jumper support vehicle. The PFD has five reserve engines, two reserve trucks, fire reserve rescue ambulances, and a reserve command vehicle.

The PFD has California Governor’s Office of Emergency Services (Cal-OES) Type I Heavy Urban Search and Rescue that is available for response to incidents involving swift water rescue, structural collapse, trench rescue, confined space rescue, technical rope rescue, mountain rescue, and mass transit accident stabilization/rescue. All PFD personnel are trained at the Type-3 Light Operational Level per Cal-OES allowing for immediate action on technical rescue incidents involving low angle rope rescue and collapse or failure of light frame construction with the necessary equipment located on all frontline engines and trucks.

There are eight PFD stations in the City, and three of the eight stations serve the Project site and surrounding area, as summarized in Table 3.8-1 on the following page.

**TABLE 3.8-1
PASADENA FIRE DEPARTMENT FACILITIES SERVING THE PROJECT SITE**

Station No. and Address	Equipment and Personnel	Distance and Direction from Site
Fire Station 31 135 South Fair Oaks Avenue	1 Fire Engine (4 personnel) 1 Ladder Truck (4 personnel) 1 Advanced Life Support Rescue Ambulance (2 personnel) 10 Personnel Assigned Total	Approximately 0.4 mile to the northwest
Fire Station 34 1360 East Del Mar Avenue	1 Fire Engine (4 personnel) 1 Advanced Life Support Rescue Ambulance (2 personnel) 1 Battalion Chief (1 personnel) 7 Personnel Assigned Total	Approximately 1.5 miles to the east-northeast
Fire Station 39 50 Avenue 64	1 Fire Engine (4 personnel) 4 Personnel Assigned Total	Approximately 1.8 miles to the west-northwest

Additionally, the PFD through the Area C Unified Response Agreement and various mutual aid and automatic aid agreements has access to the following specialty units:

- Aircraft Rescue & Firefighting Apparatus
- Air/Light Utility
- Hazmat (Type 1 from Burbank and Glendale)
- Heavy Rescue (LAFD/LA County Fire)
- Regional Task Force (RTF-4 USAR Specialty Units)
- Type III Brush Engine, Water Tenders, Patrols

The PFD also joined with the Burbank Fire Department and Glendale Fire Department to create the Verdugo Fire Communications Center (VFCC) in 1979. The communications center now dispatches for a total of 13 agencies. There are automatic and mutual aid agreements in place so that the closest unit is dispatched to a given call, regardless of department. The PFD has various automatic aid agreements with each of the cities within the VFCC agencies and the Hollywood Burbank Airport for fire protection. The PFD maintains a Memorandum of Understanding for Exchange of EMS and Rescue Services through Automatic Aid/Initial Action and EMS Training Procedures between the cities of Pasadena, South Pasadena, San Marino, and San Gabriel. Additional emergency medical services response is provided via the closest unit model achieved through the agreements of the 13 agencies making up the VFCC. Additionally, the PFD has various automatic and/or mutual aid agreements with the U.S. Forest Service, City of Los Angeles Fire Department, and Los Angeles County Fire Department for fire protection needs. The PFD relies on the California Fire Service and Rescue Emergency Mutual Aid Plan for major disasters beyond local control (i.e., major emergencies, natural disasters, sabotage, civil disturbance, political violence and terrorism, attack).

There are no federal or state regulations directing the level of service response times and outcomes, but the National Fire Protection Association (NFPA) Fire Code is a nationally recognized standard. NFPA 1710 states that a unit (i.e., engine company or ladder truck company) should arrive at the scene of a critical emergency in 8 minutes from time of call receipt in fire dispatch and remaining first alarm units (effective response force) in 12 minutes, 90 percent of the time, where the benchmark travel time is 4 minutes for the first unit on scene and 8 minutes for the effective fire force. PFD's response time standard for emergency calls is that a fire engine arrives at the scene of an emergency within 5 minutes of dispatch 90 percent of the time. In the 2019 fiscal year, the response time for fire calls averaged 8 minutes 57 seconds and for medical calls averaged 6 minutes 29 seconds (PFD 2020).

Police Protection

The Pasadena Police Department (PPD) is a full-service law enforcement agency with the capability of responding to and fully investigating any type of call for service or crime incident that occurs within the City limits. The PPD is well equipped with sufficient vehicles, resources, and facilities (including a Type I jail) to accomplish any essential law enforcement task or mission. The PPD has several specialized assignments that allow it to address community concerns and critical incidents that occur within the City. Examples of these assignments include Special Weapons and Tactics (SWAT), Traffic Section, Neighborhood Services Section, Criminal Investigations Unit, and Air Operations Section.

There are frequent calls to the police department from businesses in the Project area related to the unhoused loitering in the area and transients causing disturbances with both the businesses and patrons. The objective is to find permanent housing for the unhoused and services for the transients through outreach, partnering with non-profits, other City entities, and the Los Angeles County Mental Health Department.

The PPD has mutual aid agreements with other police agencies that immediately surround the City. The PPD is the lead agency in mutual aid area "C" and has ready access to additional police resources, when and if needed. Additionally, the PPD has a mutual aid agreement with the Los Angeles County Sheriff's Department (LACSD) for general law enforcement services, if needed. The LACSD provides law enforcement service to the Metro "L" Line (formerly known as the Gold Line) adjacent to the Project site via a memorandum of understanding.

PPD classifies priority calls for police services into three categories:

- Priority 1: High priority classification, in progress crime with immediate threat to human life. PPD's response time standard for Priority 1 calls is 6 minutes or less.
- Priority 2: In progress crime with threat to property and suspect on scene.
- Priority 3: Priority call due to classification but no suspect on scene.

Schools

The Pasadena Unified School District (PUSD) provides public Transitional Kindergarten–12th grade education to more than 15,350 students in a 76-square mile area that includes the City of Pasadena, City of Sierra Madre, and unincorporated areas of Los Angeles County including Altadena. PUSD has a total of 23 schools, including 13 elementary schools (grades K-5), 1 K-8 school, 3 middle schools (grades 6-8), 2 high schools (grades 9-12), 1 continuation high school, and 1 alternative education program. In addition to these schools, PUSD also operates Focus Point Academy, an Adult Living Skills Center, four Early Childhood Education Centers, Transitional Kindergarten programs, and Twilight Adult Education. The administrative offices for Options For Youth Public Charter Schools is located in Pasadena at 320 North Halstead

Street, Suite 280. Opportunities for Learning Public Charter Schools operates one charter school in the City through the Duarte Unified School District for grades 7-12 at 2029 Lincoln Avenue.

Table 3.8-2 summarizes the PUSD schools that would serve school-age children generated by land uses on the Project site.

**TABLE 3.8-2
PASADENA UNIFIED SCHOOL DISTRICT FACILITIES SERVING THE
PROJECT SITE**

School Name and Address	2020 School Year Enrollment
McKinley Elementary School 325 South Oak Knoll Avenue Grades K-8	944
Blair Middle & High School 1201 South Marengo Avenue Grades 6-12	1,015
Source: California Department of Education (CDE). 2021 (October 15, last accessed). <i>California School Dashboard</i> . Sacramento, CA: CDE. California School Dashboard (CA Dept of Education) (caschooldashboard.org) .	

Parks and Recreational Facilities

City of Pasadena

Although the City is generally built out, it features an extensive system of parkland that includes City parks, trails systems, and larger open space corridors that traverse large swathes of the City. Pasadena's location at the southern edge of the San Gabriel Mountains provides residents with numerous hiking, biking, and equestrian opportunities. The City provides approximately 391 acres of parks and 502 acres of open space areas (Pasadena 2015).

The Green Space, Parks and Recreation Element of the City's General Plan states that an acceptable walking distance to a park is considered a 0.5-mile radius from a site. The City of Pasadena Parks, Recreation, and Community Services Department has identified the three community parks within a 0.5- to 0.7-mile radius of the Project site, summarized in Table 3.8-3 below, as the primary facilities serving the Project site.

**TABLE 3.8-3
CITY OF PASADENA PARKS AND RECREATION FACILITIES SERVING THE
PROJECT SITE**

Facility Name, Address, and Distance from Site	Amenities	Size (Acres)
<p align="center">Central Park 275 South Raymond Avenue 0.2-mile to the northwest</p>	<ul style="list-style-type: none"> • Picnic tables, rose garden, children’s playground, and lawn bowling greens with a club house operated by the Pasadena Lawn Bowling and Croquet Club. • 3-4 full time staff for park maintenance • Central Park Center is located at the south end of Central Park. The center provides after school care and youth camp administrative offices for the Park, Recreation, and Community Services Department. • 4 full time staff 	<p align="center">9.2</p>
<p align="center">Memorial Park 85 East Holly Street 0.7 mile to the north</p>	<ul style="list-style-type: none"> • Picnic tables, children’s playground, exercise equipment and a band shell with seating. • 3-4 full time staff for park maintenance • The Pasadena Senior Center is located on the south end of the park which is independently operated by a non-profit to provide social services, programs and activities for seniors age 50 and older. 	<p align="center">5.3</p>
<p align="center">Singer Park Southwest corner of California Boulevard and St. John Avenue 0.4 mile to the west</p>	<ul style="list-style-type: none"> • Children’s playground, covered seating areas, picnic tables, and passive recreation opportunities • 2-3 full time staff for park maintenance 	<p align="center">2.9</p>

For maintenance purposes, the three parks mentioned are serviced by full time staff to ensure that the quality of the physical space and any structures within the park boundaries are maintained, and inquiries from the public are addressed within 48 hours.

The City of Pasadena does not have a minimum standard of parkland per capita. Rather, policy GSRP 6.3 of the Green Space, Recreation, and Parks Element of the City’s General Plan identifies the City’s parkland policy as: “Adequate Developed Parkland. Acquire or otherwise make available local parkland and open spaces in sufficient quantity to meet the community demand for facilities and programs identified in the Master Plan” (Pasadena 2015).

Other Parks and Open Space Facilities

The City of Pasadena and the Pasadena Unified School District (PUSD) maintain joint-use agreements permitting public use of the following PUSD facilities:

- Madison School/Park, 515 Ashtabula Street,
- Linda Vista Park, 1200 block of Linda Vista Avenue (former elementary school),
- McKinley School Park, 325 South Oak Knoll Avenue,
- John Muir High School Tennis Courts, 1905 North Lincoln Avenue, and
- Pasadena High School Tennis Courts, 2925 East Sierra Madre Boulevard (Pasadena 2015).

The Angeles National Forest (ANF), which spans about 700,000 acres, mostly in the San Gabriel Mountains, borders part of the north City boundary. The ANF offers 557 miles of hiking and equestrian trails, including 73 miles of National Recreation Trails and 176 miles of the Pacific Crest Trail (PCT); and 58 campgrounds (Pasadena 2015).

Other Public Facilities

For purposes of this Draft EIR, other public facilities refer to library services. The Pasadena Public Library (PPL) provides library services to City residents. PPL has a central library location (Central Library) and nine branch libraries, which are located so that all residents are within a mile from a library or within walking distance. PPL provides a variety of services and programs to meet each community's information needs. Programs are geared toward adults and children, service to the homebound, preschool story hours, and the Summer Reading Program.

The Project site falls between the Central Library and Allendale Branch Library service areas. Central Library is located approximately 0.8 mile to the north-northeast, and Allendale Branch Library is located approximately 0.7 mile to the south-southeast. It is noted that Central Library is currently closed for a seismic retrofit but will reopen. Also, many library resources are available 24 hours 7 days a week (24/7) virtually, including e-books, audiobooks, magazines and comics, and streaming music and video.

The Central Library is the main facility in the City and is over 100,000 square feet (sf) and houses over 300,000 collections. Central Library has provided a wide variety of programs and services for almost 100 years. Annually, 30,000-40,000 community members attend story times, author visits, cultural events, Art Night, recitals, plays, and many other programs. Central Library has also served as the hub of Pasadena's local history archives, providing valuable historical documents, newspaper, photos, and research. This facility also serves as a destination for those who need computer and/or WiFi access, providing highspeed internet access, computers, and a variety of productivity software for job searching, research, or personal use. For the last two years, Central Library has housed the iLab—an innovative space that provides the community with access to maker equipment like 3-D printers, Carvey machines, sewing machines, and more. In addition, Central Library is the home of the Office of the Young Child—a City wide systems-change initiative to bring all resources and activities for zero- to five-years-old children and their families together.

The Allendale Branch Library, located at 1130 South Marengo Avenue, is 3,172 sf with a 23,500-item collection and 4.8 full-time equivalent (FTE) staff. Allendale Branch is significantly smaller than Central Library but provides access to an extensive materials collection and programming that support the needs of neighboring high school students.

The PPL does not have one systemwide standard for square footage of library space per person; library space needs are determined individually for the service area of each branch. According to PPL, the total library facility square footage and collections are adequate to serve Pasadena's existing population and sufficient to support a population of up to a least 175,000 (as of 2013). Additionally, PPL adds approximately 60,000 items per year to its collection, which is expected to increase as titles continue to move toward electronic format. PPL's total collection exceeds national per capita standards at the time the General Plan Environmental Impact Report (EIR) was prepared (Pasadena 2015).

3.8.2 RELEVANT PROGRAMS AND REGULATIONS

State

California Disaster and Civil Defense Master Mutual Aid Agreement

The California Disaster and Civil Defense Master Mutual Aid Agreement is an agreement between the State of California, its various departments and agencies, and the various political subdivisions, municipal corporations, and other public agencies of the State of California. The agreement allows for the use of all the resources and facilities of the participating agencies in

preventing and combating the effect of disasters, such as flood, fire, earthquake, pestilence, war, sabotage, and riot. It commits the participating agencies to voluntarily aid and assist each other in the event of a disaster, through the interchange of services and facilities, including fire, police, medical and health, communication, and transportation services and facilities, as necessary to provide rescue, relief, evacuation, rehabilitation, and reconstruction.

Assembly Bill 2926

The State has traditionally been responsible for funding local public schools. To assist in providing facilities to serve students generated by new development projects, the State passed Assembly Bill (AB) 2926 in 1986. This bill allows school districts to collect impact fees from developers of new residential and commercial/industrial building space to fund school construction and reconstruction. AB 2926 also established maximum fees (adjusted for inflation) which can be collected under this and any other school fee authorization.

Senate Bill 50

Senate Bill (SB) 50 (or “Leroy Greene School Facilities Act”) and Proposition 1A (both of which passed in 1998) provide a comprehensive school facility financing and reform program by, among other methods, authorizing both a \$9.2 billion school facilities bond issue and school construction cost containment provisions. Specifically, the bond funds are to provide for new construction and for reconstruction/modernization needs. The provisions of SB 50 (1) prohibit local agencies from denying either legislative or adjudicative land use approvals on the basis that school facilities are inadequate and (2) reinstate the school facility fee cap for legislative actions (e.g., general plan amendments, specific plan adoption, zoning plan amendments). According to Section 65996 of the *California Government Code*, the development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation”.

SB 50 establishes three levels of developer fees that may be imposed upon new development by a school district’s governing board. Beginning in 2000, the maximum allowable amount of Level 1 developer fees is adjusted every two years based on the change in the statewide cost index for class B construction per Section 65995(b)(3) of the Government Code (OPSC 2021). These fee levels depend upon certain conditions within a district. For year 2020, these three levels currently include the following:

- Level 1:** Level 1 fees are the base statutory fees. Level 1 fees are \$4.08 per square foot (sf) for new residential development and \$0.66 per sf of chargeable, covered, and enclosed floor space for new commercial/industrial development. These amounts represent the maximum that can currently be legally imposed upon new development projects by a school district unless the district qualifies for a higher level of funding. Payment of this fee is deemed to constitute full, complete, and adequate mitigation of a project’s impacts on school facilities.
- Level 2:** Level 2 fees allow a school district to impose developer fees above the statutory levels up to 50 percent of school construction costs under designated circumstances. The State provides grant amounts for new school construction if funds are available.
- Level 3:** Level 3 fees apply if the State runs out of bond funds, allowing a school district to impose 100 percent of the cost of the school facility or mitigation on the developer minus any local dedicated school monies. However, Senate Bill 1016 (Chapter 38, Statutes of 2012) suspended the ability of school districts to levy Level III fees.

To accommodate students from new development projects, school districts may alternatively finance new schools through special school construction funding resolutions and/or agreements

between developers, the affected school districts and, occasionally, other local governmental agencies. These special resolutions and agreements often allow school districts to realize school mitigation funds in excess of the developer fees allowed under SB 50.

Measure TT Master Plan

In 2008, voters in the PUSD service area approved Measure TT, authorizing PUSD to sell up to \$350 million in bonds to be repaid through a property tax increase. Types of improvements to schools financed by Measure TT bonds include new, modernized, and reconfigured school buildings; upgrades to lighting, heating, ventilation, air conditioning, and electrical systems; seismic upgrades; new parking lots; and Americans with Disabilities Act access improvements.

Quimby Act

California allows a City or County to pass an ordinance that requires, as a condition of approval of a subdivision, either the dedication of land, the payment of a fee in lieu of dedication, or a combination of both for park and recreational purposes (Section 66477 of the *California Government Code*). This legislation, commonly called the “Quimby Act,” establishes a standard of 3 acres of parkland per 1,000 residents for new subdivision development unless the municipality has already established a higher rate, unless the amount of existing neighborhood and community park area exceeds that limit, in which case the city may adopt a higher standard not to exceed 5 acres per 1,000 residents. The Quimby Act also specifies acceptable uses and expenditures of such funds.

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland is California’s Public Park Preservation Act of 1971. Under the Public Resources Code, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

City

Pasadena Municipal Code

Chapter 4.17 et. seq. of the Pasadena Municipal Code (PMC) establishes the City’s park acquisition fund and requires that moneys received from the sale of dedicated parkland be deposited in the fund for park acquisition and development. The City collects park impact fees for new residential development to offset the increased demand for parks and impact on existing parks. The fees are used to fund parkland acquisition and capital improvements while interest from the fees can be used to pay for maintenance. The ordinance requires that any person developing new housing units pay an impact fee, which is included as a condition of approval when subdividing a parcel or as a prerequisite for obtaining a building permit. Impact fees are paid into a special fund maintained by the City Director of Finance and disbursed to pay for park or recreational facility improvements, as outlined in the PMC. Impact fees are valued based on the number of bedrooms in each new residential unit.

In 2000, the Pasadena City Council established three park impact districts: West, Central, and East. Marengo Avenue and Allen Avenue from the northern to the southern City limits serve as the dividing lines for the districts. A total of 90 percent of the residential impact fee collected in a park impact district must be spent on neighborhood and community parks in that district. The remaining 10 percent of the funds are distributed to the citywide parks, which include

Hahamongna, Central Arroyo, and Lower Arroyo. Interest earned on the funds collected may be used to maintain any park or any capital improvement located in any park.

Green Space, Recreation and Parks Master Plan

Pasadena's Green Space, Recreation and Parks Master Plan (GSRPMP) was approved and adopted in November 2007. The plan was developed in tandem with the City's previous General Plan Green Space Element and was the result of a three-year effort to determine the community's goals and objectives for natural open space, parks, recreational facilities, and recreational programs. The vision statement for the plan is: "To create, maintain, protect, and restore an interrelated system of parks, trails, and natural open spaces. To provide recreational opportunities which sustain a vibrant and healthy community with an emphasis on ecologically sensitive public enjoyment and education" (Pasadena 2015).

In addition to this vision statement, the GSRPMP identifies nine core principles, and all nine principles are meant to respond to challenges faced by the City related to the provision of recreational facilities and programs, which include high population densities and a "built out" community. The GSRPMP includes an extensive inventory of existing parks, open space areas, and recreational programs in the City. It also summarizes the public outreach process and feedback. Lastly, it provides a detailed community needs assessment. The community's needs are compared against the City's inventory of existing facilities and programs to establish gaps, deficiencies, priorities, and recommendations for recreation, parks, and open space. Recommendations outline sources of funding for the provision of parks and services in Pasadena. The GSRPMP is designed to be consistent with existing long-range plans for specific open space areas in the City.

3.8.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse public services and recreation impact if it would:

Threshold 3.8a: Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government 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:

- i) Fire protection;
- ii) Police protection;
- iii) Schools;
- iv) Parks; and/or
- v) Other public facilities.

Threshold 3.8b: 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.

Threshold 3.8c: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

3.8.4 METHODOLOGY

The public service providers were consulted for information regarding current services and to determine if the proposed Project or Project with Building A Residential/Commercial would significantly impact the respective providers' abilities to provide services such that new or physically altered facilities would be required, whose construction could result in an environmental impact. Other information presented in this section was derived from the City's website and the adopted General Plan and related EIR.

3.8.5 ENVIRONMENTAL IMPACTS

Threshold 3.8a: Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government 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:

- i) Fire protection;
- ii) Police protection;
- iii) Schools; and/or
- v) Other public facilities.¹

Fire Protection and Emergency Medical Services

Project

The PFD reports that the Project site is: (1) in an area serviced by a sufficient hydrant system as needed to achieve necessary fire flows, (2) the main thoroughfares running north-south and east-west, provide adequate access for PFD vehicles, and (3) fire and emergency medical response to the area are within desired response times.

The PFD anticipates that the Project would result in an increased call for fire protection and emergency medical services because there would be larger development on the site than the existing conditions; however, the increase would not result in the need to construct new or expanded facilities whose construction may cause an environmental impact. The Project would be required to comply with regulations related to fire protection and be subject to the City's routine construction permitting process. This includes a review by PFD for compliance with building and site design standards related to fire life safety and coordination with Pasadena Water and Power (PWP) to ensure that local fire flow infrastructure meets current code standards for the type and intensity of land uses involved. PFD did note that the addition of one rescue ambulance may be required due to the expected increase in medical-related calls. The new land uses would contribute to the City's general fund through payment of taxes; the general fund is the primary source of PFD's annual budget and would address the need for additional equipment. The potential need for additional equipment does not represent an environmental impact. There would be less than significant impacts related to the need for new or expanded PFD facilities, and no mitigation is required.

¹ Parks is addressed further below

Project with Building A Residential/Commercial

The PFD indicates that analysis of the Project with Building A Residential/Commercial would be essentially the same as that of the Project. The only difference is that this scenario would result in a relatively greater increase in fire and emergency medical services because there would be a larger development on the site than the existing conditions. Like the Project, the Project with Building A Residential/Commercial would not result in the need to construct new or expanded PFD facilities whose construction may cause an environmental impact. The Project with Building A Residential/Commercial would be required to comply with regulations related to fire protection and be subject to the City's routine construction permitting process. This includes a review by PFD for compliance with building and site design standards related to fire life safety and coordination with PWP to ensure that local fire flow infrastructure meets current code standards for the type and intensity of land uses involved. PFD did note that the addition of one rescue ambulance may also be required for this scenario due to the expected increase in medical-related calls. The new land uses would contribute to the City's general fund through payment of taxes; the general fund is the primary source of PFD's annual budget and would address the need for additional equipment. The potential need for additional equipment does not represent an environmental impact. There would be less than significant impacts related to the need for new or expanded PFD facilities, and no mitigation is required.

Police Protection

Project

The PPD anticipates that the Project would result in an increase in calls for service in and around the site, primarily due to traffic (i.e., traffic stops, accidents), potential theft on the premises and in vehicles, and disturbances related to unhoused individuals. PPD states that whenever additional businesses and/or residents move into an area, there is a presumption that calls for service increase. To minimize the increase to the extent possible, PPD suggests consulting with their personnel specially trained in Crime Is Prevented through Environmental Design (CPTED) as part of Project design. However, the PPD does not indicate the Project would result in the need to construct new or expanded facilities to provide adequate police protection services. Generally, an increase in calls does not cause a need for new or expanded physical facilities because police called to a scene are typically out on the street and not at a police station and are on rotating shifts. This is consistent with the conclusion of the General Plan EIR, which states that although new officers (45) and new employees (20) would be required with buildout of the General Plan, "Given this level of staff increase, the field-nature of certain officers, the rotating daily shifts of police personnel, and the Department's [PPD's] existing facilities, no new or expanded police stations or other physical facilities are expected to be necessary" (Pasadena 2015). As such, implementation of the Project would not result in the construction of new or expanded police facilities that may cause an environmental impact. There would be less than significant impacts related to the need for new or expanded PPD facilities, and no mitigation is required.

Project with Building A Residential/Commercial

According to PPD, the analysis of the Project with Building A Residential/Commercial would not be different than the Project. Like the Project, the Project with Building A Residential/Commercial would not result in the need to construct new or expanded PPD facilities, the construction of which may cause an environmental impact. There would be less than significant impacts related to the need for new or expanded PPD facilities, and no mitigation is required.

Schools

Project

The Project would not generate school-age children that would utilize PUSD schools or programs, as the only dwelling units proposed are for senior-age persons. Also, as allowed under the SB 50, school districts serving the City can assess school impact fees based on the floor area of new dwelling units and non-residential developments. These fees, to be remitted prior to issuance of building permits, are used to fund school services and facilities needed to provide the necessary school services. There would be no impact, and no mitigation is required.

Project with Building A Residential/Commercial

The Project with Building A Residential/Commercial would result in a maximum of 197 residential units that could generate school-age children. As allowed under the SB 50, school districts serving the City can assess school impact fees based on the floor area of new dwelling units and non-residential developments. These fees are used to fund school services and facilities needed to provide the necessary school services. These fees would be remitted prior to issuance of building permits. In addition to SB 50 fees, State and local bond measures have been passed, and may be passed in the future, to fund additional school facilities. As discussed above, the payment of statutory school fees is “full and complete mitigation of the impacts”. The *California Education Code* and *California Government Code* do not require the dedication of land or payment of fees in excess of statutorily established school fees. Thus, impacts on school services from future residential development under the Project with Building A Residential/Commercial would be less than significant with payment of required SB 50 fees, and no mitigation is required.

Other Public Facilities

Project

While the Project would result in an increase in the population being served by the PPL, as noted above, the PPL’s total collection exceeds national per capita standards at the time the General Plan EIR was prepared (Pasadena 2015). As such, the PPL concluded that the Project’s population would be adequately served by the existing facilities and related collections. The PPL indicates that implementation of the Project would not result in the need to construct new or expanded PPL facilities, the construction of which may cause an environmental impact. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

When compared to the Project, this scenario would result in a greater increase of the on-site resident population and, therefore, likely a greater use of library services. However, the PPL indicates that implementation of the Project with Building A Residential/Commercial also would not result in the need to construct new or expanded PPL facilities, the construction of which may cause an environmental impact. There would be a less than significant impact, and no mitigation is required.

Threshold 3.8a: Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered government 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:

iv) Parks;

Threshold 3.8c: Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Project

The City's Parks, Recreation, and Community Services Department does not have a minimum service ratio for parks. As discussed above, there are three community parks within a 0.5- to 0.7-mile radius of the Project site. It is noted that the furthest community park, Memorial Park, is situated adjacent to Memorial Station on the Gold (L) Line. Also, approximately 31,605 sf of open space, including public and private (solely for resident and staff use), would be provided across the site as part of the Project. The City's Parks, Recreation, and Community Services Department concluded that the small increase in population associated with the Project would not result in the need for new or expanded off-site park facilities. Therefore, there would be less than significant impacts related to the need for new or expanded parks facilities, and no mitigation is required.

Project with Building A Residential/Commercial

As discussed, there are three community parks within a 0.7-mile radius of the site, with the furthest park being adjacent to the Memorial Gold (L) Line station. Also, approximately 31,605 sf of open space, including public and private (solely for resident and staff use), would be provided across the site as part of the Project with Building A Residential/Commercial. Although the resident population of the Project with Building A Residential/Commercial is higher than for the Project, the City's Parks, Recreation, and Community Services Department also concluded that the increase in population associated with the Project with Building A Residential/Commercial would not result in the need for new or expanded parks facilities. Therefore, there would be less than significant impacts related to the need for new or expanded off-site parks facilities, and no mitigation is required.

Threshold 3.8b: 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.

Project

The residents generated by up to 95 independent living senior units would likely use both existing and future parks and recreational facilities in the City, as well as facilities in the surrounding area. These include County parks and recreational facilities, private recreational facilities, and recreational areas at the Angeles National Forest.

As discussed above, the City's Pasadena Parks, Recreation, and Community Services Department concluded that the increase in population associated with the Project would not drive the need for new or expanded park facilities. Also, as discussed previously, pursuant to Chapter 4.17 et. seq. of the PMC the City collects park impact fees for new residential developments to offset the increased demand for parks and impact on existing parks. The fees are used to fund parkland acquisition and capital improvements while interest from the fees can be used to pay for maintenance. The ordinance requires that any person developing new housing units pay an impact fee, which is included as a condition of approval when subdividing a parcel or as a prerequisite for obtaining a building permit. Therefore, the additional residents associated

with the Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

The residents generated by up to 197 units in Building A and up to 95 independent living senior units in Building B would likely use both existing and future parks and recreational facilities in the City, as well as facilities in the surrounding area. As discussed for the Project, the City's Parks, Recreation, and Community Services Department concluded that the contribution of residential growth from the Project with Building A Residential/Commercial is considered small with regard to direct need for City parks. Also, as discussed for the Project, the Project with Building A Residential/Commercial would be required to pay a park impact fee whose purpose is to offset increased demand for parks and impact on existing parks. Therefore, the additional residents associated with the Project with Building A Residential/Commercial would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. There would be a less than significant impact, and no mitigation is required.

3.8.6 CUMULATIVE IMPACTS

Fire Protection and Emergency Medical Services

For fire protection and emergency medical services, the service area for consideration of cumulative impacts is the City, which is the PFD service area. For fire protection services, the PFD provides automatic aid as part of the VFCC. The PFD also participates in the State of California Master Mutual Aid program, which is used when all available local resources have been depleted or committed to an incident, allowing the State to coordinate resources available from neighboring counties, as necessary. Thus, future development with buildout of the City of Pasadena General Plan, and the VFCC participating agencies (for which PFD provides mutual aid), would increase the population and introduce structures that would create a demand for fire protection and emergency medical services. This cumulative demand for fire protection and emergency medical services would require additional personnel and resources at individual agencies to provide the same level of service and maintain existing response times. Conversely, the purpose of the VFCC is to provide a localized dispatch center with a borderless system among the participating agencies whereby the nearest available responder to the event, regardless of jurisdictional boundary, would provide the needed fire or emergency services. Essentially, each participating agency has the resources of all other participating agencies available for emergency response.

Individual developments in the City would be required to comply with pertinent provisions of the California Fire Code to prevent the creation of fire hazards, to promote fire safety, and to facilitate emergency response. Each project pursuant to General Plan buildout would be required to comply with regulations related to fire protection and be subject to the City's routine construction permitting process. This includes a review by PFD for compliance with building and site design standards related to fire life safety and coordinating with PWP to ensure that local fire flow infrastructure meets current code standards for the type and intensity of land uses involved. Future development in the City would generate revenues towards the City's general fund (e.g., property taxes, sales tax, business tax) that could potentially be applied toward the funding of PFD fire protection and emergency services. These revenues would help offset the increased demand for PFD services with buildout of the General Plan. Construction and operation of new or expanded facilities, if necessary, as an allowed land use were evaluated throughout the General Plan EIR (Pasadena 2015).

As discussed in the Initial Study, the development of the Project or the Project with Building A Residential/Commercial would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project or Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to fire protection and emergency medical services, and no mitigation is required.

Police Protection Services

For police protection services, the geographic area for consideration of cumulative impacts is the City, which is the PPD service area. As discussed, the PPD has mutual aid agreements with other police agencies that immediately surround the City and the LACSD is the lead agency in mutual aid area "C".

Individual developments in the City would be reviewed by the PPD and required to comply with any requirements in effect when the review is conducted. Future development in the City would generate revenues towards the City's general fund (e.g., property taxes, sales tax, business tax) that could potentially be applied toward the funding of PPD fire protection and emergency services. These revenues would help offset the increased demand for PPD services with buildout of the General Plan. Construction and operation of new or expanded facilities, if necessary, as an allowed land use were evaluated throughout the General Plan EIR.

As discussed in the Initial Study, the development of the Project or Project with Building A Residential/Commercial would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project or Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to police protection services, and no mitigation is required.

School Services

For school services, the geographic area for consideration of cumulative impacts is the PUSD service area, which includes the City and some adjacent areas. The General Plan EIR states that PUSD has capacity to accommodate the student population estimated for the City at General Plan buildout, with excess classroom capacity for all grade levels.

Individual developments in the City would be required to pay SB 50 fees as appropriate at the time that project is implemented. Additionally, PUSD can utilize Measure TT funds. As discussed in the Initial Study, the development of the Project or Project with Building A Residential/Commercial would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project or Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to school services, and no mitigation is required.

Library Services

For library services, the geographic area for consideration of cumulative impacts is the City, as this is the PPL service area. The General Plan EIR states that the existing library system (in 2015) has adequate resources to serve the anticipated population increase with General Plan buildout.

As discussed in the Initial Study, the development of the Project or Project with Building A Residential/Commercial would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project or Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to library services, and no mitigation is required.

Parks and Recreation Services

For park services, the geographic area for consideration of cumulative impacts is the City, as this is the City's Pasadena Parks, Recreation, and Community Services Department service area. For regional recreational facilities, such as the Angeles National Forest, the geographic area for consideration of cumulative impacts is primarily the San Gabriel Valley, although some users come from further distances to visit the forest.

Individual developments in the City would be required to pay the residential impact fee consistent with the park impact fee nexus study prepared in 2013 and updated every five years. Compliance with the residential impact fee program ensures that there is adequate parkland based on General Plan standards, and that there would not be substantial deterioration of existing facilities (Pasadena 2015).

In addition to City of Pasadena, the surrounding cities, County of Los Angeles, and National Forest Service have policies and programs to maintain and/or develop regional recreation facilities to meet increased demand. It is not expected that there would be regional growth, without some parallel growth of recreation facilities, such that the existing facilities would experience substantial physical deterioration.

As discussed in the Initial Study, the development of the Project or Project with Building A Residential/Commercial would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project or Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to parks and recreational facilities, and no mitigation is required.

3.8.7 MITIGATION MEASURES

No significant impacts related to public services and recreation would occur, and no mitigation is required.

3.8.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.8.9 SUMMARY OF ANALYSIS

Project

Through consultation with PFD, PPD, PPL, and City's Parks, Recreation, and Community Services Department, it was determined that implementation of the Project would not result in the need for new or expanded fire protection, police protection, library service, or parks and recreation facilities, the construction of which could cause significant environmental impacts to maintain acceptable performance objectives. The City's Parks, Recreation, and Community Services Department also concluded that implementation of the Project would not 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. The new land uses would contribute, through payment of taxes, to the City's general fund that can be applied toward the funding of PFD and PPD; and would be required to remit the residential park impact fee to be applied towards City parks and recreation facilities. There would be less than significant impacts related to fire protection and emergency medical services, police protection services, library services, and parks and recreation, and no mitigation is required.

The Project would not generate school-age children that would utilize PUSD schools or programs, as the only dwelling units proposed are for senior-age persons. There would be no impact to PUSD services, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of the need for new or expanded fire protection services, police protection services, library services, and parks and recreation for the Project with Building A Residential/Commercial would be essentially the same as that of the Project. However, the Project with Building A Residential/Commercial would result in a higher resident population generation. Notwithstanding, the PFD, PPD, PPL, and City Parks, Recreation, and Community Services Department concluded that, as with the Project, there would also be less than significant impacts from this scenario and no mitigation is required.

The Project with Building A Residential/Commercial would generate school-age children and would be required to remit SB 50 fees. Thus, impacts on school services from future residential development under the Project with Building A Residential/Commercial would be less than significant with payment of required SB 50 fees, and no mitigation is required.

3.8.10 REFERENCES

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3.9 TRANSPORTATION

This section evaluates the impacts of the Project and Project with Building A Residential/Commercial with respect to all transportation modes, including vehicular, transit, bicycle, and pedestrian, and the effects related to freeway on- and off-ramps in the site vicinity. Information in this section is derived primarily from the *Transportation Impact Analysis, CEQA Evaluation, Category 2* (Project TIA), dated November 30, 2020; and the *Transportation Impact Analysis, CEQA Evaluation* (Project with Building A Residential/Commercial TIA), dated June 17, 2021, prepared by the Pasadena Department of Transportation (Pasadena DOT) and included as Appendices G-1 and G-2, respectively, to this Draft EIR.

3.9.1 EXISTING CONDITIONS

Street System

The existing street system in the study area consists of freeways, primary, and secondary arterials, and collector and local streets that provide regional, sub-regional, and local access within the Project area. The classifications of the street system in both TIAs are provided below:

- **Raymond Avenue** is a north/south Neighborhood Connector between Corson Street to Del Mar Boulevard, and a City Connector between Del Mar Boulevard to Glenarm Street. Raymond Avenue does not have bike lanes south of Maple Street. It has a speed limit of 35 miles per hour (mph) between California Boulevard and Glenarm Street, and 30 mph between California Boulevard and Green Street.
- **Arroyo Parkway** is a north/south Access Road between Holly Street to Colorado Boulevard, and a City Connector between Colorado Boulevard to the State Route (SR) 110 freeway. In the vicinity of the Project, Arroyo Parkway is a four-lane divided roadway with time limited parking on both sides of the roadway. It has a 35 mph speed limit in the project vicinity. Arroyo Parkway is not designated as a bike lane or route.
- **Marengo Avenue** is a north/south City Connector between Orange Grove Boulevard and Del Mar Boulevard, and a Neighborhood Connector north of Orange Grove Boulevard to the northern City limits and south of Del Mar Boulevard to the southern City limits. Bike lanes are present south of Cordova Street to Glenarm Street.
- **Cordova Street** is a four-lane, east/west Neighborhood Connector with two lanes in each direction. The posted speed limit on Cordova Street is 35 mph. A future road diet is proposed along a section of this roadway, which will include bike lanes.
- **Del Mar Boulevard** is an east/west City Connector that generally offers two lanes in each direction. The speed limit is 35 mph. Del Mar Boulevard is designated as a Class III Bike Route between Saint John Avenue and Wilson Avenue, and a Class III Enhanced Bike Route east of Wilson Avenue.
- **Bellevue Drive** is an east/west Access Road between Arroyo Parkway and Marengo Avenue with parking on both sides of the street. The Arroyo Parkway at Bellevue Drive intersection is a signalized offset intersection.
- **California Boulevard** is an east/west City Connector posted with a 30 mph speed limit. California Boulevard is designated as a Class III Bike Route between Marengo Avenue and Lake Avenue, and a Class III Enhanced Bike Route between Lake Avenue and Allen Avenue.

- **Glenarm Street** is an east/west oriented roadway that is classified as an Access Road between Pasadena Avenue to Fair Oaks Avenue, a City Connector between Fair Oaks Avenue to Arroyo Parkway, and a Neighborhood Connector between Arroyo Parkway to El Molino Avenue. Glenarm Street is designated as a Class III Bike Route between Pasadena Avenue and Marengo Avenue, and a Class II Bike Lane east of Marengo Avenue.

Alternative Transportation Facilities

Transit

The Project area is currently served by the Los Angeles County Metropolitan Transportation Authority (Metro) and Pasadena Area Rapid Transit System (Pasadena Transit). As shown in Table 3.9-1 below, the City identifies three hierarchical levels for transit facilities. Table 3.9-2 on the following page outlines the public transit service within the area.

**TABLE 3.9-1
TRANSIT FACILITIES HIERARCHY**

Level	Facilities Included
1	Includes all Gold (L) Line stops as well as corridors with transit service, whether it be a single route or multiple routes combined, with headways of five minutes or less during the peak periods.
2	Includes corridors with transit headways of between six and 15 minutes in peak periods.
3	Includes corridors with transit headways of 16 minutes or more at peak periods.
Source: Pasadena DOT 2021.	

Transit facilities provided by these agencies within ¼-mile of the Project site include the following:

- Pasadena Transit bus routes 20, 51, 52;
- Metro bus routes 177, 256, 501, 686, and 687; and
- Metro Gold (L) Line (light rail).

**TABLE 3.9-2
EXISTING TRANSIT SERVICE IN THE PROJECT AREA**

Location	Route
Raymond Ave at Del Mar Blvd – East Side	Pasadena Transit bus routes 20, 51, 52 Metro bus routes 177, 256, 501, 686, 687 Metro Gold (L) Line (light rail)
Raymond Ave at California Blvd – Northeast Corner	Pasadena Transit bus routes 51, 52 Metro bus routes 686, 687
Raymond Ave at Fillmore St – East Side	Metro Gold (L) Line
Raymond Ave at Fillmore St – Northeast Corner	Pasadena Transit bus routes 51, 52 Metro bus routes 686, 687
Raymond Ave at Glenarm St – Northeast Corner	Pasadena Transit bus routes 51, 52 Metro bus routes 686, 687
Arroyo Parkway at Del Mar Blvd – West Side	Metro Gold (L) Line
Arroyo Parkway at Del Mar Blvd – Southwest corner	Metro bus route 256
Arroyo Parkway at Bellevue Dr – Southwest corner	Metro bus route 256
Arroyo Parkway at California Blvd – Northside on California Blvd	Metro bus route 256
Arroyo Parkway at California Blvd – Southwest corner – Southeast corner	Pasadena Transit bus route 20
Arroyo Parkway at Fillmore St – Northeast corner – Southwest corner	Pasadena Transit bus route 20
Arroyo Parkway at Fillmore St – West side at cul-de-sac	Metro Gold (L) Line
Arroyo Parkway at Glenarm St – East side – Northwest side	Pasadena Transit bus route 20
Marengo Ave at California Blvd – Southeast corner	Pasadena Transit bus route 20
Source: Pasadena DOT 2021	

Bikeways

Multimodal transportation is encouraged with the availability of bicycle racks on Metro, Pasadena Transit, and City of Los Angeles Department of Transportation (LADOT) buses and at each Metro Gold (L) Line Station. In addition, bicycles are allowed onto Metro Gold (L) Line trains. Currently, 31.7 percent of the Citywide service population (i.e., population + jobs) is located within ¼-mile of Level 1 and 2 bicycle facilities. As shown in Table 3.9-3 below, the City's *Draft Bicycle Transportation Plan* (Bicycle Plan) identified three hierarchical levels for bicycle facilities.

**TABLE 3.9-3
BICYCLE FACILITIES HIERARCHY**

Level	Description	Facilities Included
1	Advanced Facilities	Bike Paths Multipurpose Paths Cycle Tracks/Protected Bike Lanes
2	Dedicated Facilities	Buffered Bike Lanes Bike Lanes Bike Boulevards
3	Basic Facilities	Bike Routes Enhanced Bike Routes Emphasized Bikeways
Source: Pasadena DOT 2021.		

Bikeway facilities within ¼-mile of the Project site include the following:

- Del Mar Boulevard is designated as a Class III Bike Route between Saint John Avenue and Wilson Avenue, and a Class III Enhanced Bike Route east of Wilson Avenue;
- California Boulevard is designated as a Class III Bike Route between Marengo Avenue and Lake Avenue, and a Class III Enhanced Bike Route between Lake Avenue and Allen Avenue;
- Glenarm Street is designated as a Class III Bike Route between Pasadena Avenue and Marengo Avenue, and a Class II Bike Lane east of Marengo Avenue; and
- Bike lanes are present south of Cordova Street to Glenarm Street.

Pedestrian

The pedestrian circulation system in the City is comprised of sidewalks, crosswalks, intersection and mid-block traffic controls, and signal technology. The City determines pedestrian accessibility based on a Pedestrian Accessibility metric, which is discussed further below in Section 3.9.4. The current Pedestrian Accessibility score is 3.88.

Vehicle Miles Traveled and Vehicle Trips

The City of Pasadena *Transportation Impact Analysis Current Practice and Guidelines* (TIA Guidelines) address two vehicular performance metrics: Vehicle Miles Traveled (VMT) per Capita and Vehicle Trips (VT) per Capita, as discussed further below in Section 3.9.4. The existing Citywide VMT per Capita is 22.6, and the existing Citywide VT per Capita is 2.8.

3.9.2 RELEVANT PROGRAMS AND REGULATIONS

State

Senate Bill 743

With its passage in 2013, Senate Bill (SB) 743 reformed the analysis and evaluation of traffic impacts under CEQA. SB 743 requires the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines and replace the Level of Service (LOS) metric (i.e., auto delay, congestion) with alternative criteria that encourage reductions in greenhouse gas emissions,

multimodal transportation network-related development, and increased diversity of land uses (OPR 2021). In 2014, the OPR responded by publishing preliminary updates and identifying alternative criteria. The primary metric was identified as vehicle miles travelled (VMT). In 2016, the OPR published a revised proposal that adhered to VMT in evaluating transportation impacts.¹

City

General Plan Mobility Element

The City's General Plan Mobility Element was adopted in 2015 as an update to the 2004 Mobility Element. Based on the City's Guiding Principle related to mobility, Pasadena envisions itself in the future as "a city where people can circulate without cars" (Pasadena DOT 2015). It is noted that this goal is not intended to mean a city where there is an absence of cars, but rather where one could navigate the City without a car if desired.

In addition, the Mobility Element addresses state regulations that have been designed to evaluate transportation needs within the context of the community and regional, and also presents a comprehensive plan to meet such needs. The Mobility Element addresses strategies to promote non-auto travel, public transit services, parking approaches, bicycle facilities, car-sharing programs, and pedestrian components that are coordinated and connected with a regional transportation system.

Pasadena Transportation Impact Analysis Guidelines

The City developed and adopted its *Transportation Impact Analysis Current Practice and Guidelines* to ensure that transportation system improvements necessary to support new development while maintaining the quality of life within the community are identified prior to project approval and funded prior to construction (Pasadena DOT 2015). In supporting the City's vision, the TIA guidelines promote an integrated and multimodal transportation system that provides choices and accessibility for everyone living in and working in the City (Pasadena DOT 2015). For all proposed projects not categorically exempt, transportation impact analyses are an integral part of the environmental review process under CEQA. The City has adopted a set of performance measures and CEQA thresholds that are closely aligned with the Mobility Element objectives and policies. The mobility performance measures assess the quality of walking, biking, transit, and vehicular travel in the City. A combination of vehicular and multimodal performance measures are employed to evaluate system performance in reviewing new development projects. Such measures include VMT per Capita, VT per Capita, Proximity and Quality of the Bicycle and Transit Network, and Pedestrian Accessibility. These performance measures align with the sustainable goals of the General Plan by evaluating the efficiency of project by analyzing the per capita length and number of trips associated with changes in land use. With the expanded emphasis on sustainability and a continued focus on livability, the performance measures inform decisions related to the balance of travel modes and provide further understanding on the community's mobility needs.

The TIA Guidelines apply to all projects that require environmental review in accordance with CEQA and the City's established Environmental Policy Guidelines, significance thresholds, and transportation review guidelines. The TIA Guidelines differentiate between projects that are exempt, within CEQA thresholds, and analyses to be evaluated outside of the CEQA process. As further discussed below, the City's CEQA transportation thresholds determine a project's expected level of impact on the transportation system and identify appropriate types of mitigation.

¹ Governor's Office of Planning and Research, Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, January 20, 2016.

Pasadena Municipal Code

Congestion Management Program

Chapter 10.64 of the Pasadena Municipal Code (PMC) implements the requirements of Metro's Congestion Management Program, in accordance with California Government Code Sections 65089 and 65089.3 and provisions of Metro's model trip-reduction ordinance.

Section 10.64.020 of the PMC requires that certain development project incorporate a Transportation Demand Management (TDM) program plan pursuant to Section 10.64.020 of the PMC. Such projects include mixed-use developments with 50 or more residential units or 50,000 sf or more on non-residential development, or non-residential projects that exceed 75,000 sf. TDM plans must be reviewed and approved by the Director of Pasadena DOT prior to the issuance of a building permit. Thereafter, updates on the implementation of the transportation plan are to be submitted for review and approval annually. TDM plans are required to include project description; site conditions that affect commute travel; and duties, responsibilities, and qualifications of a certified Employee Transportation Coordinator.

The demand for vehicle commute trips must be reduced by ensuring that the design of major residential and non-residential development projects will accommodate facilities for alternative modes of transportation. The TDM plan may include, but is not limited to, the strategies, such as promotional rideshare events, pay parking for employees, guaranteed ride home, private vanpool operations, bikeway linkages to established routes, transit pass and vanpool fare subsidies, reduced-parking fees for non-solo drivers, provision of a certified Employee Transportation Coordinator, and commuter matching service for all employees on an annual basis and new employees upon hiring.

Pedestrian Master Plan

The City's *Pedestrian Master Plan* (Pedestrian Plan) was adopted in 2006. The plan is intended to increase livability and walkability in Pasadena. Among other goals, the plan provides guidance for improved connectivity between the green spaces. The plan seeks to develop pedestrian-friendly projects, better integrate pedestrian improvements into street maintenance and traffic management programs and implement public education and enforcement programs that improve pedestrian safety and increase levels of walking.

Bicycle Transportation Plan

The City's *Bicycle Transportation Plan* (2000 Bicycle Plan) was adopted in 2000 and includes provisions that aim to increase overall recreation opportunities in Pasadena, particularly those related to bicycle lanes, trails, and bicycle infrastructure. An update to the Bicycle Plan is currently being developed by the City.

3.9.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse transportation impact if it would:

- Threshold 3.9a:** Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- Threshold 3.9b:** Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)(1); and/or

Threshold 3.9c: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Threshold 3.9d: Result in inadequate emergency access.

The City of Pasadena has adopted transportation performance measures and thresholds of significance to determine transportation and traffic impacts under CEQA. The City's transportation thresholds of significance applicable to the Project and Project with Building A Residential/Commercial are presented in Table 3.9-4, City of Pasadena CEQA Transportation Thresholds. The City's transportation analysis methodology is discussed further below.

**TABLE 3.9-4
CITY OF PASADENA CEQA TRANSPORTATION THRESHOLDS**

Metric	Description	CEQA Impact Threshold
1. VMT Per Capita	VMT in the City of Pasadena per service population (population + jobs)	An <u>increase</u> over existing Citywide VMT per Capita of 22.6
2. VT Per Capita	VT in the City of Pasadena per service population (population + jobs)	An <u>increase</u> over existing Citywide VT per Capita of 2.8
3. Proximity and Quality of Bicycle Network	Percent of service population (population + jobs) within a ¼-mile of bicycle facility types	Any <u>decrease</u> in existing citywide 31.7% of service population (population + jobs) within a ¼-mile of Level 1 & 2 bike facilities
4. Proximity and Quality of Transit Network	Percent of service population (population + jobs) within a ¼-mile of transit facility types	Any <u>decrease</u> in existing citywide 66.6% of service population (population + jobs) within a ¼-mile of Level 1 & 2 transit facilities
5. Pedestrian Accessibility	The Pedestrian Accessibility Score uses the mix of destinations, and a network-based walk shed to evaluate walkability	Any <u>decrease</u> in the Citywide Pedestrian Accessibility Score
VMT: vehicle miles traveled; VT: vehicle trips Source: Pasadena DOT 2021		

3.9.4 METHODOLOGY

City of Pasadena Transportation Impact Analysis

Pursuant to the TIA Guidelines, the Project was evaluated using the City's transportation performance measures. Proposed projects are analyzed using the City's calibrated travel demand forecasting (TDF) model built on SCAG's regional model. The City's TDF model uses TransCAD software to simulate traffic levels and travel patterns for the City of Pasadena. The TransCAD program consists of input files that summarize the City's land uses, street network, travel characteristics, and other key factors. Using this data, the model performs a series of calculations to determine the number of trips generated, the beginning and ending location of each trip, and the route taken by the trip. To be deemed accurate for project transportation impact on the transportation system, a model must be calibrated to a year in which actual land use data and traffic volumes are available and well documented. The Pasadena TDF has been calibrated to 2013 base year conditions using actual traffic counts, Census data, and land use data compiled by City staff with land uses' associated population and job increase estimates. The methodology of the specific performance assessment is provided below.

Vehicle Miles Traveled Per Capita

The VMT per Capita measure sums the miles traveled for trips within the City of Pasadena Transportation Demand Model (that is based on the SCAG regional model). The VMT total considers 100 percent of the mileage of trips that begin and end inside Pasadena and 50 percent of the distance travelled for trips with one end outside of Pasadena. The City's VMT is then divided by the City's total service population, defined as the population plus the number of jobs.

Although VMT itself will likely increase with the addition of new residents, the City can reduce VMT on a per-capita basis with land use policies that help Pasadena residents meet their daily needs within a short distance of home, reducing trip lengths, and by encouraging development in areas with access to various modes of transportation other than auto.

Vehicle Trips Per Capita

The VT per Capita is a measure of motor vehicle trips associated with the City. The measure sums the trips with origins and destination within the City of Pasadena, as generated by the 2013 Trip-Based Citywide Travel Demand Model. The regional VT is calculated by adding the VT associated with trips generated and attracted within City boundaries, and 50 percent of the VT associated with trips that either begin or end in the City but have one trip end outside of the City. The City's VT is then divided by the City's total service population, defined as the population plus the number of jobs. As with VMT, VT itself will likely increase with the addition of new residents, but the City can reduce VT on a per-capita basis with land use policies that help Pasadena residents meet their daily needs within a short distance of home, reducing trip lengths, and by encouraging development in areas with access to various modes of transportation other than auto.

Proximity and Quality of Transit Network

The Proximity and Quality of Transit Network provides a measure of the percent of the City's service population (population + jobs) within a ¼-mile of each of each of three transit facility types, as defined in Table 3.9-1. For each facility level, a ¼-mile network distance buffer is calculated and the total service population (population + jobs) within the buffer is identified. The City can improve the measures of Transit Proximity and Quality by reducing headways on existing transit routes, by expanding transit routes to cover new areas, and by encouraging residential and commercial development to occur in areas with an already high-quality transit service.

Proximity and Quality of Bicycle Network

The Proximity and Quality of Bicycle Network provides a measure of the percent of the City's service population (population + jobs) within a ¼-mile of bicycle facility types. The facility types are aggregated into three hierarchy levels, obtained from the City's Bicycle Plan categories as shown in Table 3.9-3. For each bike facility level, a ¼-mile network distance buffer is calculated and the total service population (population + jobs) within the buffer is identified. The City can improve measures of Bike Facility Access by improving and expanding existing bike facilities and by encouraging residential and commercial development in areas with high-quality bike facilities.

Pedestrian Accessibility

The Pedestrian Accessibility score provides a measure of the average walkability in the Traffic Analysis Zones (TAZs) surrounding Pasadena residents, based on a Pedestrian Accessibility metric. The Pedestrian Accessibility metric is a simple count of the number of land use types accessible to a Pasadena resident or employee in a given TAZ within a five-minute walk. The ten land use types considered are:

- 1) Retail,
- 2) Personal Services,
- 3) Restaurant,
- 4) Entertainment,
- 5) Office (including private sector and government offices),
- 6) Medical (including medical office and hospital uses),
- 7) Culture (including churches, religious and other cultural uses),
- 8) Park and Open Space,
- 9) School (including elementary and high schools), and
- 10) College.

3.9.5 ENVIRONMENTAL IMPACTS

Threshold 3.9a: Would the Project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Threshold 3.9b: Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

The City's TIA methodology assesses both the vehicular and non-vehicular (i.e., transit, bicycle, pedestrian) transportation facilities together. Therefore, for clarity of the analysis, these two thresholds are analyzed together, consistent with the TIA Guidelines.

Project

Those projects with proposed land uses that are consistent with the General Plan and complementary to their surrounding land uses are expected to reduce the trip length associated with adjacent land uses; and/or increase the service population access to pedestrian, bike, and transit facilities if the project is within ¼-mile of those facilities.

Table 3.9-5, Transportation Impact Analysis Summary for the Project, summarizes the analyses of the Project's potential impacts on the City's transportation system using the calibrated TDF model. The results are based on the Project's vehicular and non-vehicular trip making characteristics, trip length, and its interaction with other surrounding/citywide land uses, and the City's transportation network. The Project TIA is provided in its entirety in Appendix G-1 to this Draft EIR.

**TABLE 3.9-5
TRANSPORTATION IMPACT ANALYSIS SUMMARY
FOR THE PROJECT**

Transportation Performance Metrics	Significant Impact Cap (Existing)	Incremental Change (Existing + Project)	Significant Impact?
VMT Per Capita	>22.6	19.5	No
VT Per Capita	>2.8	2.0	No
Proximity and Quality of Bicycle Network	<31.7%	32.0	No
Proximity and Quality of Transit Network	<66.6%	66.8	No
Pedestrian Accessibility	<3.9	3.9	No
VMT: vehicle miles traveled; VT: vehicle trips Source: Pasadena DOT 2020.			

As shown in Table 3.9-5, using the City's Transportation Demand Model, the Pasadena DOT determined that the Project would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines (Pasadena DOT 2020). As such, the Project would not conflict with the City's plan addressing the circulation system under CEQA (i.e., TIA Guidelines), which includes transit, roadway, bicycle and pedestrian facilities; or conflict or be inconsistent with Section 15064.3(b)(1) of the State CEQA Guidelines. There would be less than significant impacts, and no mitigation is required.

Project with Building A Residential/Commercial

The Pasadena DOT prepared a TIA for the Project with Building A Residential/Commercial using the same methodology as applied for the Project. Table 3.9-6, Transportation Impact Analysis Summary for the Project with Building A Residential/Commercial, summarizes the analyses of the Project with Building A Residential/Commercial's potential impacts on the City's transportation system using the calibrated TDF model. The Project with Building A Residential/Commercial TIA is provided in its entirety in Appendix G-2 to this Draft EIR.

**TABLE 3.9-6
TRANSPORTATION IMPACT ANALYSIS SUMMARY FOR THE PROJECT WITH
BUILDING A RESIDENTIAL/COMMERCIAL**

Transportation Performance Metrics	Significant Impact Cap (Existing)	Incremental Change (Existing + Project)	Significant Impact?
VMT Per Capita	>22.6	8.2	No
VT Per Capita	>2.8	1.4	No
Proximity and Quality of Bicycle Network	<31.7%	32.0	No
Proximity and Quality of Transit Network	<66.6%	66.8	No
Pedestrian Accessibility	<3.9	3.9	No
VMT: vehicle miles traveled; VT: vehicle trips Source: Pasadena DOT 2021.			

As shown in Table 3.9-6, using the City's TDM, the Pasadena DOT determined that the Project with Building A Residential/Commercial would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines (Pasadena DOT 2021). Compared to the Project, the Project with Building A Residential/Commercial would have substantively lower VMT per Capita and somewhat lower VT per Capita. As such, the Project with Building A

Residential/Commercial would not conflict with the City's plan addressing the circulation system under CEQA (i.e., TIA Guidelines), which includes transit, roadway, bicycle and pedestrian facilities; or conflict or be inconsistent with Section 15064.3(b)(1) of the State CEQA Guidelines. There would be less than significant impacts, and no mitigation is required.

Threshold 3.9c: Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Project

Based on comments related to traffic safety in response to the Notice of Preparation of the EIR, the above threshold has been included in the Draft EIR analysis after having been scoped out as part of Initial Study preparation.

The Pasadena DOT was consulted regarding the collision history for the South Arroyo Parkway and California Boulevard intersection. Pasadena DOT tracks the City's intersection collision history, which is inclusive of all transportation modes. For the five-year period from January 1, 2016, through December 31, 2020, there were a total of 20 collisions at this intersection, broken down by year as follows: 3 in 2016, 7 in 2017, 6 in 2018, 3 in 2019, and 1 in 2020. Of the 20 collisions, 9 resulted in injuries and 0 resulted in fatalities. All but 2 incidents involved another motor vehicle; of these, 1 incident involved a fixed object and 1 incident involved a pedestrian. Pasadena DOT generally considers the "top 10" intersections as typically having 8 or more collisions per year, and intersections that average 6 or more collisions per year could be considered high. The Arroyo Parkway and California Boulevard intersection averaged 4 collisions per year. In addition, the Pasadena DOT notes that when comparing the collision rate of this intersection with the Statewide average for signalized intersections controlled by traffic signals in an urban area, the crash rate for this intersection falls slightly below the Statewide average (Siques 2021a; Russo 2021).

The Pasadena DOT reports that they have worked closely with Metro in recent years to reduce delay at the intersection caused by the Metro L (Gold) Line operation and implemented an adaptive traffic control system to better manage operations along this corridor. There have been substantial changes to the signal operations at this intersection in the past approximately five years, and the changes have likely contributed to a reduction in collisions during this period. This intersection is not considered a high collision location, and Pasadena DOT continues to monitor operations at this intersection and along the corridor to address traffic signal operations and reduce the potential for collisions (Siques 2021a).

The Pasadena DOT concluded that the additional trips generated by the Project, on its own, are not expected to generate a safety concern at this intersection, especially with the traffic signal phasing/operations being proactively managed and the presence of raised median islands already provided at Arroyo Parkway and California Boulevard that restrict turn movements into and out of the proposed driveways. Additionally, the number of driveways at the site would be reduced from four to two on Arroyo Parkway and from two to one on California Boulevard, which helps reduce non-vehicular conflicts (Siques 2021b).

Based on the intersection's collision history, Pasadena DOT's continuing proactive management of this intersection, and the less than significant transportation impact pursuant to Thresholds 3.9(a) and (b), it is concluded that implementation of the Project would not result in a traffic safety hazard at the South Arroyo Parkway and California Boulevard intersection. Moreover, the Project would not increase hazards due to a geometric design feature or incompatible use. No sharp curves or dangerous intersections are proposed, and the proposed uses are consistent and

compatible with the existing uses onsite and in the vicinity. Therefore, there would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

As discussed above, the Pasadena DOT was consulted regarding the accident history for the South Arroyo Parkway and California Boulevard intersection and the potential for the addition of trips from the Project with Building A Residential/Commercial to affect the safety of this intersection. As discussed above, based on the intersection's collision history, Pasadena DOT's continuing proactive management of this intersection, and the less than significant transportation impact, it is concluded that implementation of the Project would not result in a traffic safety hazard at the South Arroyo Parkway and California Boulevard intersection. Moreover, the Project with Building A Residential/Commercial would not increase hazards due to a geometric design feature or incompatible use. There would be a less than significant impact, and no mitigation is required. This conclusion would be the same for the Project with Building A Residential/Commercial as this scenario would generate fewer daily trips than the Project.

Threshold 3.9d: Would the Project result in inadequate emergency access?

Project

As stated in Section 2.0, Project Description, of this Draft EIR, the site currently has seven points of access, including two on California Boulevard, one on Bellevue Drive, and four on Arroyo Parkway. All these access points except one are driveways leading to surface parking; the access point on Bellevue Drive leads into the subterranean parking structure serving Whole Foods Market. The ingress/egress on East Bellevue Drive to the 275-space Whole Foods Market parking structure would remain in place to continue serving the grocery store and would be entirely separated from the proposed parking structure. Additionally, there is a truck exit (only) from Whole Foods Market on Arroyo Parkway at the southern end of this structure.

As shown on Exhibit 2-5, First (Ground) Level Plan, in Section 2.0, Environmental Setting and Project Description, of this Draft EIR, the Project uses south of Whole Foods Market proposes three ingress/egress points: one on California Boulevard and two on South Arroyo Parkway. A circular drop-off area would be situated on the north side of each of the proposed buildings. The Project would not involve any alterations to existing public or private roadways and would not result in the elimination of a through-route or the narrowing of any roadways outside the boundaries of the site. All proposed ingress/ingress points and drive lanes on the site would be subject to Pasadena Fire Department and Pasadena DOT review and approval to ensure adequate access is available both for emergency vehicles, which are regularly expected with operation of Building B, and routine circulation. As such, implementation of the proposed Project would not create new obstructions to emergency access in the Project area. There would be a less than significant impact, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of emergency access for the Project with Building A Residential/Commercial would be the same as that of the Project. Although there would be 200 fewer parking spaces and a substantively lower VMT per Capita compared to the Project, the proposed circulation on the ground level for both development scenarios would be the same. There would be a less than significant impact, and no mitigation is required.

3.9.6 CUMULATIVE IMPACTS

Project

Cumulative transportation impacts within the City were recently evaluated in the Pasadena General Plan Draft EIR, which evaluated transportation impacts within the City associated with buildout of the General Plan in 2035 (City of Pasadena 2015). The General Plan EIR analysis considered impacts associated with the five transportation performance measures identified in the TIA Guidelines, namely VMT per Capita, VT per Capita, proximity and quality of the bicycle network, proximity and quality of the transit network, and pedestrian accessibility. The analysis found that transportation impacts associated with all five performance measures would be less than significant.

As the Project is consistent with the land use designation associated with the site that was evaluated in the General Plan EIR, the analysis of transportation impacts in the General Plan Draft EIR is representative of cumulative impacts associated with the Project. Also, as discussed above, the Project would result in less than significant impacts for all five transportation performance measures. Therefore, Project-related cumulative impacts were considered in the cumulative analysis conducted for the Pasadena General Plan Draft EIR. The Project would not result in a cumulatively considerable impact related to transportation, and no mitigation is required.

Project with Building A Residential/Commercial

As with the Project, cumulative impacts for the Project with Building A Residential/Commercial were considered in the cumulative analysis conducted for the Pasadena General Plan Draft EIR as the Project with Building A Residential/Commercial is consistent with the site's land use designation. The Project with Building A Residential/Commercial would not result in a cumulatively considerable impact related to transportation, and no mitigation is required.

3.9.7 MITIGATION MEASURES

No mitigation measures are required.

3.9.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.9.9 SUMMARY OF ANALYSIS

Project

The Pasadena DOT determined that the Project would not exceed any of the five CEQA transportation thresholds defined in the City's TIA Guidelines (Pasadena DOT 2020). As such, the Project would not conflict with the City's plan addressing the circulation system under CEQA (i.e., TIA Guidelines), which includes transit, roadway, bicycle and pedestrian facilities; or conflict or be inconsistent with Section 15064.3(b)(1) of the State CEQA Guidelines. Implementation of the Project would not create new obstructions to emergency access in the Project area. The Project would not result in a traffic safety hazard at the South Arroyo Parkway and California Boulevard intersection and would not increase hazards due to a geometric design feature or incompatible use. There would be less than significant impacts, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of transportation for the Project with Building A Residential/Commercial would be essentially the same as the Project. Compared to the Project, the Project with Building A Residential/Commercial would have substantively lower VMT per Capita and somewhat lower VT per Capita. The Pasadena DOT determined that the Project with Building A Residential/Commercial would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines (Pasadena DOT 2021). As such, the Project would not conflict with the City's plan addressing the circulation system under CEQA (i.e., TIA Guidelines), which includes transit, roadway, bicycle and pedestrian facilities; or conflict or be inconsistent with Section 15064.3(b)(1) of the State CEQA Guidelines. Implementation of the Project with Building A Residential/Commercial would not create new obstructions to emergency access in the Project area. The Project with Building A Residential/Commercial would not result in a traffic safety hazard at the South Arroyo Parkway and California Boulevard intersection and would not increase hazards due to a geometric design feature or incompatible use. There would be less than significant impacts, and no mitigation is required.

3.9.10 REFERENCES

Governor's Office of Planning and Research (OPR). 2021 (October 19, date accessed). *Alternative Transportation Metrics (SB 743), Updating the Analysis of Transportation Impacts under CEQA*. Sacramento, CA: <https://opr.ca.gov/ceqa/sb-743/>.

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Russo, A. 2021 (December 21). Personal Communication. E-mail correspondence between Nader Asmar, TE (Principal Engineer, Pasadena Department of Transportation) and Lieutenant Anthony Russo (Pasadena Police Department) regarding Incident No. 17011147.

Siques, J. 2021a (October 14 through 21). Personal Communication. E-mail correspondence between Jason Van Patten (Senior Planning, City of Pasadena) and Joaquin Siques (Deputy Director, City of Pasadena Department of Transportation) regarding the Pasadena Department of Transportation intersection collision history for South Arroyo Parkway and California Boulevard.

———. 2021b (November 22). Personal Communication. E-mail correspondence between Jason Van Patten (Senior Planning, City of Pasadena) and Joaquin Siques (Deputy Director, City of Pasadena Department of Transportation) regarding Caltrans freeway safety analyses and Project-related trip generation and driveways relevant to traffic safety.

3.10 TRIBAL CULTURAL RESOURCES

This section addresses potential impacts to tribal cultural resources that could result from implementation of the Project or Project with Building A Residential/Commercial. Information in this section is derived from consultation between the City and local tribal representatives consistent with Assembly Bill (AB) 52 (Appendix H); an archaeological records search conducted by the South Central Coastal Information Center (SCCIC) on July 24, 2020; the Sacred Lands File search conducted by the Native American Heritage Commission (NAHC) received on July 15, 2020; and the Native American consultation conducted by the City (Appendix C-2).

3.10.1 EXISTING CONDITIONS

Section 3.2 of this Draft EIR provides an evaluation of cultural resources. As noted in that section, a cultural resource record search and literature review was conducted at the California Historical Resources Information System (CHRIS), which maintains records and literature regarding cultural resources within California. The CHRIS office for Los Angeles County is located at the SCCIC. No prehistoric archaeological sites or tribal cultural resources have been documented within the Project site or the ½-mile search radius. Nevertheless, the results from the NAHC Sacred Lands Files confirmed the presence of a sacred site (tribal cultural resource) important to the local Gabrielino/Tongva community. The resource is located nearby, but not within the Project site. The locations and other details of sacred sites are kept confidential in order to protect the sites.

3.10.2 RELEVANT PROGRAMS AND REGULATIONS

State

Assembly Bill 52

In September 2014, Governor Brown signed AB 52 (Chapter 532, Statutes of 2014), which creates a new category of environmental resources that must be considered under CEQA: “tribal cultural resources.” The legislation imposes new requirements for offering to consult with California Native American tribes regarding projects that may affect a tribal cultural resource, emphasizes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures.

Recognizing that tribes may have expertise regarding their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. MMs agreed upon during consultation must be recommended for inclusion in the environmental document.

AB 52 became effective on July 1, 2015 and requires that the lead agency provide project notifications to California Native American tribes on the NAHC Tribal Consultation list that request notification in writing prior to a lead agency’s release of a NOP for an EIR, a Mitigated Negative Declaration (MND), or Negative Declaration (ND). Once Native American tribes receive a project notification, they have 30 days to respond as to whether they wish to initiate consultation regarding the project and specifically consultation regarding mitigation for any potential project impacts.

Native American Historic Resource Protection Act

Established in 2002, the Native American Historic Resource Protection Act, establishes a misdemeanor for unlawfully and maliciously excavating upon, removing, destroying, injuring, or defacing a Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources (CRHR). The focus of this legislation was to provide additional legal protection for Native American historical and cultural sites, art, and other cultural artifacts found at those sites. The Act also encourages collaborative relationships for the protection of Native American cultural resources between Native Americans and landowners. Funding and other state assistance should be encouraged for support of voluntary agreements to conserve, maintain, and provide physical access for Native Americans to these cultural resources.

California Health and Safety Code (Sections 7050.5, 7051, and 7054)

Sections 7050.5, 7051, and 7054 of the *California Health and Safety Code* collectively address the illegality of interference with human burial remains (except as allowed under applicable sections of the [*California Public Resources Code* (PRC)]). These sections also address the disposition of Native American burials in archaeological sites and protect such remains from disturbance, vandalism, or inadvertent destruction. Procedures to be implemented are established for (1) the discovery of Native American skeletal remains during construction of a project; (2) the treatment of the remains prior to, during, and after evaluation; and (3) reburial.

Section 7050.5 of the *California Health and Safety Code* specifically provides for the disposition of accidentally discovered human remains. Section 7050.5 states that if human remains are found, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains.

California Public Resources Code (Section 5097.98)

Section 5097.98 of the PRC states that, if remains are determined by the Coroner to be of Native American origin, the Coroner must notify the NAHC within 24 hours. When the NAHC receives this notification from a County Coroner, it shall immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land or his or her authorized representative, inspect the site of the remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. This regulation also requires that, upon the discovery of Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendants regarding their recommendations and all reasonable options regarding their preferences for treatment. This section of the PRC has been incorporated into Section 15064.5(e) of the State CEQA Guidelines.

3.10.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse tribal cultural resources impact if it would:

- Threshold 3.10:** 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:
- a) 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); and/or
 - b) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.10.4 METHODOLOGY

Consistent with requirements of AB 52, on May 28, 2020, the City of Pasadena initiated government-to-government consultation with those tribes that have provided written requests to be notified of projects in the City to identify, protect, and/or mitigate potential impacts to cultural places/resources. Both tribes (Gabrieliño/Tongva Tribe and Gabrieliño Band of Mission Indians – Kizh Nation) accepted the request for consultation and completed the AB 52 process for the Project with the City.

3.10.5 ENVIRONMENTAL IMPACTS

- Threshold 3.10:** **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:**
- a) **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); and/or**

Project

In response to Threshold 3.10a, for the purposes of impact analysis, a tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either eligible for the CRHR or a local register.

Psomas submitted a request to the SCCIC on July 24, 2020. As discussed above and in Section 3.2, Cultural Resources, of this Draft EIR, based on the record searches and consultation with Native American tribes culturally affiliated with the area (see analysis under Threshold 3.10b below), there are no tribal cultural resources listed on the CRHR or a local register within the

Project site. There would be no impact related to documented tribal cultural resources, and no mitigation is required.

Project with Building A Residential/Commercial

The analysis of potential impacts to documented tribal cultural resources for the Project with Building A Residential/Commercial would be essentially the same as that of the Project, as the records search and Native American consultation are based on the site location and history. This is the same for both scenarios. As with the Project, there would be no impact related to documented tribal cultural resources, and no mitigation is required.

Threshold 3.10: 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:

- b) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

Project

As noted above, on May 28, 2020, the City initiated government-to-government consultation with those tribes that have provided written requests to be notified of projects in the City. Letters requested consultation pursuant to AB 52 were sent to the following tribal organizations:

- Gabrieliño Tongva Tribe; and
- Gabrieliño Band of Mission Indians – Kizh Nation.

Both tribes accepted the request for consultation and completed the AB 52 process for the Project with the City. The results of these consultations are summarized below.

Gabrieliño Tongva Tribe

The City consulted with tribal representatives from both the Gabrieliño Tongva Tribe and the Gabrieliño Band of Mission Indians – Kizh Nation.

Consultation between the Gabrieliño Tongva Tribe, represented by Mr. Sam Dunlap, and the City occurred on November 30, 2020. Mr. Dunlap indicated the Project site lies within an area where ancestral territories of Gabrieliño Tongva Tribe villages adjoined and overlapped, at least during the Late Prehistoric Period (i.e., before European contact) and the Protohistoric Periods (i.e., post European contact). Mr. Dunlap also mentioned several Native American burials and village sites are documented in Pasadena and nearby South Pasadena. However, Mr. Dunlap was unaware of these types of resources being present within the Project site.

On January 12, 2021, as requested by the City, Psomas had a follow-up conference call with Mr. Dunlap to revisit the Project and discuss the results of the SCCIC record search results for

the Project. After review of the record search results, Mr. Dunlap, speaking on behalf of the Gabrieliño Tongva Tribe did not see any reason to change his earlier position on whether documented tribal cultural resources exist on the Project site.

In summary, through consultation between Gabrieliño Tongva Tribe and the City, it was concluded that this area of Los Angeles County was inhabited by Native Americans, but existing site records do not indicate archaeological resources significant to Native Americans on the Project site. However, there is always the possibility that undiscovered intact cultural resources, including tribal cultural resources, may be present below the surface in native sediments. Therefore, Mr. Dunlap indicated the tribe would appreciate the opportunity for the Gabrieliño Tongva and Gabrieliño representatives from other tribal councils that are recognized by the NAHC to be allowed the opportunity to bid on Native American monitoring if the City approves such as measure for the Project.

Gabrieliño Band of Mission Indians – Kizh Nation

Consultation between the Gabrieliño Band of Mission Indians – Kizh Nation (Kizh Nation) and the City occurred on October 15, 2020. The Kizh Nation followed up with submittal of an e-mail on November 4, 2020, summarizing the consultation, providing tribal archive information, and providing requested mitigation. The Kizh Nation provided documents and information regarding the potential sensitivity of cultural resources related to the Kizh Nation and asked that the documents and information be kept confidential. The follow up e-mail requested that the City provide written notification stating whether and to what extent the proposed mitigation would be included for the Project so that the parties may conclude consultation, or if the requested mitigation is not agreeable so that the consultation may continue. The City reviewed and considered the information provided and mitigation required by the Kizh Nation. On December 2, 2021—consistent with the request of the Kizh Nation to be notified regarding whether and to what extent the proposed mitigation would be required for the Project—the City e-mailed the Kizh Nation and provided a recommended mitigation measure, based on the measure provided by Kizh Nation, for review and concurrence. The City stated that it considered consultation complete and would assume concurrence with the measure, and associated conditions of approval based on the mitigation measure, unless a response was received by December 9, 2021. No response was received from the Kizh Nation by or subsequent to December 9, 2021.

Project with Building A Residential/Commercial

The analysis of potential impacts to tribal cultural resources based on AB 52 consultation for the Project with Building A Residential/Commercial would be essentially the same as that of the Project. Although this scenario would have slightly less excavation due to inclusion of one fewer subterranean parking level and therefore somewhat less likelihood of encountering an unknown tribal cultural resource, the resulting potential impact and associated mitigation agreed upon with the Gabrieliño Band of Mission Indians – Kizh Nation would apply. With implementation of MM TCR-1, there would be a less than significant impact.

3.10.6 CUMULATIVE IMPACTS

Project

The cumulative impacts related to demographic growth are analyzed for the City of Pasadena. Direct impacts to cultural resources are generally site specific. However, development throughout the City, could potentially result in the disturbance of prehistoric archaeological resource sites (including tribal cultural resources/Native American remains). The City participates in Native American consultation consistent with AB 52 and SB 18 (when applicable). This process, in combination with site-specific archaeological studies, and any resulting site-specific mitigation

measures (typically monitoring and processes to manage any unanticipated resources), would contribute to the reduction of potential tribal cultural resource impacts to the maximum extent feasible. Because there are no documented tribal cultural resources on the Project site and MM TCR-1 would be implemented, the Project would not result in a cumulatively considerable impact to tribal cultural resources.

Project with Building A Residential/Commercial

The cumulative impact analysis of tribal cultural resources for the Project with Building A Residential/Commercial would be essentially the same as that of the Project, as the records search and Native American consultation are based on the site location and history. This is the same for both scenarios. As with the Project, because there are no documented tribal cultural resources on the Project site and MM TCR-1 would be implemented, the Project with Building A Residential/Commercial would not result in a cumulatively considerable impact to tribal cultural resources.

3.10.7 MITIGATION MEASURES

MM TCR-1 Prior to the commencement of any ground disturbing activity at the Project site, the Project Applicant shall accommodate a Native American Monitor (Monitor) culturally affiliated with the site as recognized by the Native American Heritage Commission (NAHC). The Monitor contracted and retained shall be at the expense of the tribe(s) that consulted on this Project. The Tribal Monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching within the Project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified.

The on-site monitoring shall end when all ground-disturbing activities on the Project site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground-disturbing activities at the Project Site have little to no potential for impacting Tribal Cultural Resources.

Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 50 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by Project construction activities shall be evaluated by the Tribal Monitor approved by the Consulting Tribe and a qualified Archaeologist (if one is present).

If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes. If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance in the immediate vicinity of the find shall be halted, and the County Coroner shall be notified per Section 5097.98 of the Public Resources Code and Section 7050.5 of the Health & Safety Code. Human remains and grave/burial goods shall be treated alike per Section 5097.98(d)(1) and (2) of the Public Resources Code. Work may continue in other parts of the Project site while evaluation and, if necessary, mitigation takes place (Section 15064.5[f] of the State CEQA Guidelines). Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of

archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin (non-Tribal Cultural Resource) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be donated to a local school or historical society in the area for educational purposes.

3.10.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.10.9 SUMMARY OF ANALYSIS

Project

Based on consultation with the Gabrieliño Tongva Tribe and Gabrieliño Band of Mission Indians – Kizh Nation pursuant with AB 52 (Appendix H) and the results on an archaeological records search conducted by the SCCIC on July 24, 2020; and NAHC Sacred Lands File search received on July 15, 2020 (Appendix C-2), there are no tribal cultural resources listed on the CRHR or a local register within the Project site or otherwise known to the culturally affiliated Native American tribes. However, there is always the possibility that undiscovered intact cultural resources, including tribal cultural resources, may be present below the surface in native sediments. Therefore, MM TCR-1 requires the Project Applicant to accommodate a Native American Monitor culturally affiliated with the site as recognized by the NAHC prior to the commencement of any ground-disturbing activity on the site. MM TCR-1 also defines the role of the Tribal Monitor, if such an individual elects to be present during construction of the Project, and the steps required if a potential tribal cultural resource is encountered during ground-disturbing activities. With implementation of MM TCR-1, there would be a less than significant impact.

Project with Building A Residential/Commercial

The analysis of potential impacts to tribal cultural resources for the Project with Building A Residential/Commercial would be essentially the same as that of the Project. Although this scenario would have slightly less excavation and therefore somewhat less likelihood of encountering an unknown tribal cultural resource, there is always the possibility that undiscovered intact cultural resources, including tribal cultural resources, may be present below the surface in native sediments. As such, the associated mitigation agreed upon with the Gabrieliño Band of Mission Indians – Kizh Nation would apply. With implementation of MM TCR-1, there would be a less than significant impact.

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3.11 UTILITIES AND SERVICE SYSTEMS

This section addresses utilities and service systems that would be used with implementation of the Project or Project with Building A Residential/Commercial and analyzes potential impacts on the availability and capacity of the local providers for the following utilities and service systems (the service provider is noted parenthetically):

- Water facilities (Pasadena Water and Power);
- Wastewater facilities (Los Angeles County Sanitation Districts and City of Pasadena Department of Public Works);
- Dry utilities (Southern California Edison [electric], Southern California Gas Company [natural gas], and various telecommunications companies); and
- Solid waste disposal (Los Angeles County Sanitation Districts and Los Angeles County Public Works).

Information in this section is derived from the *Affinity Project Water Supply Assessment (WSA)*, prepared for the Project by ESA and dated January 2022 (ESA 2022, Appendix I); the City of Pasadena’s and the utilities’ websites; the *City of Pasadena General Plan* and its Environmental Impact Report (EIR), and the Central District Specific Plan; the Notice of Preparation comment letter from the County Sanitation Districts of Los Angeles County regarding wastewater and provided in Appendix A-2; and other sources as cited herein. It is noted that the Project and Project with Building A Residential/Commercial do not qualify as a “project” under Senate Bill (SB) 610, which requires preparation of a WSA (Section 10912[a] of the Water Code). Nonetheless, based on comments received on the Notice of Preparation of this Draft EIR and given that all of California’s 58 counties are under a drought emergency proclamation as of the preparation of this EIR (California 2021), a WSA was prepared for the Project and Project with Building A Residential/Commercial to inform the environmental analysis.

The Initial Study (provided in Appendix A-1) concluded that all thresholds related to hydrology and water quality, including storm drainage capacity, would result in no impacts or less than significant impacts and were not carried forward into the Draft EIR for further analysis.

3.11.1 EXISTING CONDITIONS

Existing utility infrastructure is located on site and in the surrounding roadways. Exhibits 2-17a and 2-17b, Conceptual Utility Plans, in Section 2.0, Environmental Setting and Project Description, of this EIR, show the locations of existing wet and dry utilities and the locations of proposed connections to utilities.

Water Supply

Infrastructure

Pasadena Water and Power (PWP) provides potable water to City residents and businesses. There are 2, existing, PWP 8-inch diameter domestic water lines in Arroyo Parkway, a 6-inch diameter domestic water line in Bellevue Drive, and a 12-inch diameter domestic water line in California Boulevard.

Water Supply Sources

The City’s water supply is provided primarily through two sources: local groundwater from the Raymond Basin (RB) and imported water purchased from the Metropolitan Water District of

Southern California (MWD), which is a regional wholesaler in Southern California. MWD provides the City with water imported from the Colorado River Aqueduct (CRA) and the State Water Project (SWP). Table 3.11-1, Pasadena Water Supply Sources and Quantities (AFY), summarizes water supply sources and estimated volumes available now and over the next approximately 25 years (ESA 2022).

**TABLE 3.11-1
PASADENA WATER SUPPLY SOURCES AND QUANTITIES (AFY)**

Water Supply Source	2025	2030	2035	2040	2045 ^a
Imported Water	19,248	19,362	19,454	19,527	19,579
Groundwater	11,830	11,830	11,830	11,830	11,830
Totals	31,078	31,192	31,284	31,357	31,409

^a The 2045 imported water is projected based on a second order polynomial extrapolation (e.g., curve of best fit) from year 2025, 2030, 2035, and 2040 data in the PWP *Final 2020 Urban Water Management Plan*. The anticipated 2045 imported water projected in this table may differ from PWP's official projection in future updates to its 2020 UWMP.

afy = acre-feet per year

Source: ESA 2022 (via *Pasadena Water and Power Final 2020 Urban Water Management Plan*).

Imported Water

The water supply for the City is imported from outside the region through the City's membership in MWD, which delivers both treated and untreated water to Southern California via two sources (i.e., SWP and CRA). Water from Northern California is imported by way of the SWP, and water from the Colorado River reaches the region through the CRA. MWD has five treatment plants, which supply most of Southern California with treated water through their regional distribution system. PWP receives treated water via five turnouts from MWD's Upper Feeder. Water served to PWP is treated at MWD's Weymouth Water Treatment Plant (WTP). During outages at the Weymouth WTP, PWP can receive treated water from MWD's Jensen WTP. Sufficient turnout capacity exists to meet existing and projected PWP demands. According to PWP's *2020 Urban Water Management Plan (2020 UWMP)*, while connection capacity is sufficient, reliability of this supply is insufficient. As such, PWP would be unable to meet local demand solely from imported water supplies in the event of a service disruption from MWD. As shown in Table 3.11-2, PWP Imported Water Supplies (AFY), the City consistently obtains approximately 62 percent of its treated potable water from MWD (ESA 2022).

**TABLE 3.11-2
PWP IMPORTED WATER SUPPLIES (AFY)**

Water Supply Source	2025	2030	2035	2040	2045 ^a
Potable Water Imported from MWD	19,248	19,362	19,454	19,527	19,579
Total PWP Water Supplies	31,078	31,192	31,284	31,357	31,409
Percent of Total PWP Water Supplies	62%	62%	62%	62%	62%

^a The 2045 imported water is projected based on a second order polynomial extrapolation (e.g., curve of best fit) from year 2025, 2030, 2035, and 2040 data in the PWP *Final 2020 Urban Water Management Plan*. The anticipated 2045 imported water projected in this table may differ from PWP's official projection in future updates to its 2020 UWMP.

afy = acre-feet per year

Source: ESA 2022 (via *Pasadena Water and Power Final 2020 Urban Water Management Plan*).

Local Groundwater

Groundwater production is obtained from the RB, which is an adjudicated basin. While PWP has groundwater pumping rights to extract groundwater based on the adjudication and decree, it is also credited with additional pumping rights for infiltrating surface water. PWP can use the RB for long-term supply storage as an emergency supply. PWP manages its pumping rights, spreading credits, and long-term storage in the RB to maintain a reliable source (ESA 2022).

Raymond Basin

Pasadena overlies the RB, which is an alluvial valley approximately 40 square miles in area underlain by deposits of gravel, sand, silt, and clay. The RB is in the northwest portion of the San Gabriel Valley and is bound by the San Gabriel Mountains to the north, the San Rafael Hills to the west, and the Raymond Fault to the south/southeast. RB is divided into three subareas: the Monk Hill subarea in the northwest, the Pasadena subarea in the central portion of the basin, and the Santa Anita subarea in the east. PWP has water rights in the Monk Hill and Pasadena subareas of the RB.

The base of the water-bearing strata of the RB is defined by bedrock material that is not considered to yield significant quantities of water. Overlying the bedrock are more than 1,200 feet of unconsolidated alluvial materials consisting of boulders, gravel, sand, silt, and clay. This alluvium is the principal water-bearing unit in the RB. Well yields in the alluvium range from a few hundred to several thousand gallons per minute (gpm). The alluvial aquifer system in the RB consists of many individual interconnected water-bearing zones.

Specific yield values in the RB are typical of alluvial sediments and range from approximately 5 percent to 18 percent. Groundwater generally flows southerly from areas of recharge at the base of the San Gabriel Mountains to areas of discharge along Raymond Fault at hydraulic gradients ranging from approximately 0.040 feet to 0.090 feet. The Raymond Fault acts as a leaky hydrologic barrier and defines the boundary between the RB and the main San Gabriel Valley Groundwater Basin to the south. Currently, RB groundwater levels are relatively higher in the northern half of the basin and lower in the southern half of the basin compared with historical trends. Current sources of groundwater recharge to the RB include:

- Natural infiltration and percolation of rainfall and surface water;
- Percolation of applied water from irrigation and other return flows;
- Subsurface inflow from adjacent groundwater basins, bedrock areas, and the San Gabriel Mountains;
- Artificial recharge through surface water infiltration; and
- Percolation of water from septic tanks (ESA 2022).

Raymond Basin Judgement

In December 1944, the RB was the first groundwater basin adjudicated in California. The adjudication known as the Raymond Basin Judgement (RB Judgement) was needed to resolve conflicts between the groundwater pumping entities. Under the adjudication, it was determined that 16 parties had the right to extract water. The court allocated groundwater pumping rights to each party, and this decision is based on RB Judgement of “safe yield”. The safe yield was originally determined to be 21,900 acre-feet per year (afy) but was modified in 1955 to 30,662 afy. These decreed rights were set in 1955 for recent wet weather conditions but were not reevaluated from time to time as then suggested. The authority to administer the RB Judgement, resolve future

disputes, and make binding judgments is vested in the RB Watermaster. The Watermaster is the Raymond Basin Management Board, which is the representatives of the parties (pumping entities) of the RB Judgement.

PWP's decreed groundwater pumping right was set at 12,807 afy; this is divided between the two underlying subareas: Monk Hill (4,464 afy) and Pasadena (8,343 afy). As suggested in the decree to reevaluate the RB groundwater conditions, the Raymond Basin Management Board implemented a resolution on July 1, 2009, that voluntarily reduced pumping from the Pasadena subarea to address declining water levels. As a result, PWP's water pumping from the RB was decreased by 2,503 afy, or from 12,807 afy to 10,304 afy (ESA 2022).

Surface Runoff Spreading Credits

PWP has pre-1914 rights to divert up to 25 cubic feet per second (cfs) of surface water from the Arroyo Seco and Millard Canyon streams and up to 8.9 cfs from the Eaton Wash. This surface water is currently used to recharge the RB. The RB Judgment allows each pumper to take the surface water directly to meet demand or use surface water to recharge the RB and then pump out a portion of the recharged volume in addition to their decreed groundwater pumping rights. PWP receives a pumping credit of 60 to 80 percent of the surface water recharged at the Arroyo Seco Spreading Grounds, and a credit of 80 percent of the surface water recharged at the Eaton Wash Spreading Grounds. From 2001 to 2020, groundwater pumping credits from the infiltration of surface water provided PWP an average of 1,675 afy. In dry years this was as low as 300 acre-feet (af) and in wet years up to 5,115 af (ESA 2022).

Groundwater Production

For the past five years (2015–2020), PWP's annual groundwater production has averaged approximately 11,000 afy, which includes decreed rights (10,304 afy) and annual surface water spreading credits. Currently PWP has 12 active wells and 6 wells are inactive due to contamination and other factors. Most of the operational wells are approaching 100 years, which reduces their capacity or reliability. Because of contamination issues, groundwater requires treatment or a sequence of blending with imported water to dilute contamination levels low enough to comply with State and federal drinking water requirements. Table 3.11-3, Groundwater Volume Pumped (AFY), provides the pumping history for all PWP wells that produced groundwater between 2016 and 2020 (i.e., the five years prior to the publication of PWP's 2020 UWMP) (ESA 2022).

**TABLE 3.11-3
GROUNDWATER VOLUME PUMPED (AFY)**

Groundwater	Location or Basin Name	2016	2017	2018	2019	2020
Alluvial Basin	Raymond Basin (Monk Hill and Pasadena subareas)	10,650	11,150	10,690	7,481	11,230
Totals		10,650	11,150	10,690	7,481	11,230
afy = acre-feet per year						
Source: ESA 2022 (via <i>Pasadena Water and Power Final 2020 Urban Water Management Plan</i>).						

Historic Water Demands for Existing Land Uses

Historically, the Project site has been used for commercial uses. Table 3.11-4, Historic Project Site Water Demand, presents the estimated historic water demand for the existing on-site land uses.

**TABLE 3.11-4
HISTORIC PROJECT SITE WATER DEMAND**

Land Use Category	Square Feet	Generation Unit	GPD	GPY	AFY
Existing Land Uses to Remain					
Whole Foods Grocery	73,671	150 gpd/1,000 sf	11,051	4,033,487	12.38
Existing Land Uses to be Removed					
Fitness ^a (501 S. Arroyo Pkwy)	2,880	300 gpd/1,000 sf	864	315,360	0.97
Event Rentals ^a (523 S. Arroyo Pkwy)	3,002	100 gpd/1,000 sf	300	109,573	0.34
Animal Hospital (491/495 S. Arroyo Pkwy)	12,676	100 gpd/1,000 sf	1,268	462,674	1.42
Event Rentals (523 S. Arroyo Pkwy)	21,437	100 gpd/1,000 sf	2,144	782,452	2.40
Restaurant (Fast Casual) (541 S. Arroyo Pkwy)	7,493	1,000 gpd/1,000 sf	7,493	2,734,945	8.39
Restaurant (Fast Casual) (577 S. Arroyo Pkwy)	4,306	1,000 gpd/1,000 sf	4,306	1,571,690	4.82
Subtotals	45,912	N/A	16,375	5,976,693	18.34
Totals			27,426	10,010,180	30.72
^a The businesses at 501 and 523 South Arroyo Parkway would change from retail to fast-casual restaurant with Project implementation. These two existing uses are included as land uses to be removed to capture the increased water demand of restaurants compared to retail. gpd: gallons per day; gpy: gallons per year; afy: acre-feet per year; N/A: not applicable Source: ESA 2022.					

Based on conservative water resources planning estimates for these existing uses, existing water demand at the Project site is estimated at 30.72 afy. Whole Foods would remain on the Project site and continue to generate water demands throughout construction and operation of the Project. Two existing buildings totaling approximately 5,882 square feet (sf) would also remain on the Project site; fast-casual restaurant uses are proposed to replace the existing retail uses and analyzed in these two buildings as part of the Project water demand analysis (ESA 2022).

Wastewater

Infrastructure

The City of Pasadena sewer system contains about 350 miles of pipelines. About 94 percent of these sewers are City-owned and 3 percent are owned by the Los Angeles County Sanitation Districts' (LACSD), 2 percent by the Los Angeles County Public Works (LACPW), and 1 percent are privately owned. Sewers range from 6-inch- to 42-inch-diameter pipes for LACSD trunk sewers; however, the majority are eight-inch-diameter pipes (Pasadena 2015).

As indicated above, the City operates and maintains most of the local sanitary sewer collection system. The City's sanitary collection system consists of approximately 328 miles of gravity pipelines, serving most parcels within the City limits and conveys an annual average flow of approximately 14 million gallons per day (mgd). The City's wastewater collection system conveys untreated wastewater to Los Angeles County Sanitation District's (LACSD) trunk sewer system

via 92 separate connections. The City's sewer system operates under Los Angeles Regional Water Quality Control Board (LARWQCB) Order 2006-003-DWQ and Order 2013-0058-EXEC. These LARWQCB orders require the City to take a proactive approach to ensure a Citywide operation, maintenance, and management plan is in place to reduce the number and frequency of Sanitary Sewer Overflows (SSO) within the City and related monitoring and reporting requirements (Pasadena 2019).

Within the area of the Project, there are two existing City of Pasadena 8-inch diameter sewer lines in Arroyo Parkway and one 8-inch diameter sewer line in California Boulevard a 6-inch diameter domestic water line in Bellevue Drive, and a 12-inch diameter domestic water line in California Boulevard. The northern sewer line in Arroyo Parkway turns west at and connects to the line in California Boulevard; the southern line turns east. Wastewater flow in the local sewer lines serving the site discharge to either or both the LACSD's Arroyo Seco Section 4 Trunk Sewer, located in the northern terminus of Garfield Avenue at Hardison Place, or Arroyo Seco Section 5 Trunk Sewer, also located in the northern terminus of Garfield Avenue at Hardison Place (LACSD 2021a; Appendix A-2).

Treatment

The Project site is within LACSD's District 16 and wastewater from the site is treated either at the Whittier Narrows Water Reclamation Plant (WRP) located near the City of South El Monte or at the Los Coyotes WRP located in the City of Cerritos. The Whittier Narrows WRP has a capacity of 15.0 mgd and currently processes an average flow of 9.9 mgd, and the Los Coyotes WRP has a capacity of 37.5 mgd and currently processes an average flow of 21.3 mgd (LACSD 2021a). As shown in Table 3.11-5, Existing Wastewater Generation, based on the LACSD's applicable wastewater generation rates, the existing uses on the Project site generate approximately 26,849 gpd of wastewater. Without including Whole Foods Market, the existing uses on the site generate approximately 15,798 gpd of wastewater.

**TABLE 3.11-5
EXISTING WASTEWATER GENERATION**

Existing Use	Building Size	Wastewater Generation Rate	Estimated Wastewater Generation (gpd)
Whole Foods Grocery	73,671 sf	150 gpd / 1,000 sf	11,051
K9 Loft	12,676 sf	100 gpd / 1,000 sf	1,268
Corporate Furniture Resource	21,437 sf	100 gpd / 1,000 sf	2,144
Gold Line Pilates	2,880 sf	100 gpd / 1,000 sf	288
Town & Country Event Rentals	3,002 sf	100 gpd / 1,000 sf	300
Little Lily's Kitchen	7,493 sf	1,000 gpd / 1,000 sf	7,493
Guisado's Restaurant	4,306 sf	1,000 gpd / 1,000 sf	4,306
Total Wastewater Generation with Whole Foods Market			26,849
Total Wastewater Generation without Whole Foods Market			15,798
sf: square feet; gpd: gallons per day			
Source of generation rates: LACSD 2021b.			

Dry Utilities

PWP provides electrical services and Southern California Gas (The Gas Company) provides natural gas services in the City of Pasadena. Telecommunications (i.e., telephone, television, and/or internet) services are provided by several companies, including, but not limited to,

Spectrum, AT&T, and EarthLink. There is a backbone of dry utility infrastructure throughout the City, including adjacent to the Project site.

Solid Waste

Landfills Serving the City

According to California Department of Resources Recycling and Recovery (CalRecycle) records, in 2019 (the most recent year data is available) the City of Pasadena disposed of approximately 291,584 tons of waste as follows: approximately 247,032 tons at in-State landfills, 10,043 tons was transformed to energy, and 34,509 tons was alternative daily cover (CalRecycle 2021a). While the City's post-diversion municipal waste was disposed at a total of 16 in-State landfills (in 2019), approximately 74 percent of the waste stream was disposed at Scholl Canyon Landfill in Glendale. The City's per resident disposal rate target is 10.9 pounds per day (PPD) and the per employee disposal rate target is 15.3 PPD; in 2019, the City achieved disposal rates of 9.2 PPD per capita and 13.4 PPD per employee (CalRecycle 2021b).

Based on a solid waste generation rate for retail land uses of 0.006 pounds per day per sf, published in the City's General Plan EIR and derived from CalRecycle, the 125,465 sf of existing uses on the Project site generate approximately 753 pounds (0.37 tons) of solid waste per day.

3.11.2 RELEVANT PROGRAMS AND REGULATIONS

Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), *Health and Safety Code*, Sections 116350–116405) was passed in 1974 and is intended to protect public health by regulating the nation's public drinking water supply. The Federal SDWA authorizes the U.S. Environmental Protection Agency (USEPA) to set national standards for drinking water to protect against contaminants. Amendments in 1996 expanded the focus of the SDWA from primarily water treatment to enhanced source water protection, operator training, funding for water system improvements, and public information as important components of protecting drinking water supplies. The SDWA applies to every public water system in the United States and sets the enforceable maximum contaminant levels (MCLs) for drinking water supplies.

State

Safe Drinking Water Act

California enacted its own Safe Drinking Water Act, with the California Department of Health Services (DHS) granted primary enforcement responsibility. Title 22 of the *California Code of Regulations* (CCR) (Division 4, Chapter 15, "Domestic Water Quality and Monitoring Regulations") established DHS authority and provides drinking water quality and monitoring requirements, which are equal to or more stringent than federal standards.

Senate Bill 610

Senate Bill (SB) 610 amended State law¹ to improve the link between information on water supply availability and certain land use decisions made by cities and counties. Specifically, it requires land use planning entities (in this case, the City of Pasadena), when evaluating certain large development projects, to request a water supply availability assessment from the water supply entity that would provide water to the project. A water supply assessment (WSA) must be prepared in conjunction with the land use approval process associated with a project, and it must include an evaluation of the sufficiency of the water supplies available to the water supplier to meet existing and anticipated future demands (including the demand associated with the project in question) over a 20-year horizon that includes normal, single-dry, and multiple dry-years. An SB 610 WSA is required for any “project” that is subject to CEQA and that proposes, among other things, residential development of more than 500 dwelling units.

Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) (*California Water Code*, Division 6, Part 2.6, Section 10610 et seq.) was enacted in 1983. The UWMP Act applies to municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 afy of water. The UWMP Act requires these suppliers to update their Urban Water Management Plan every five years to demonstrate an appropriate level of reliability in supplying anticipated short-term and long-term water demands during normal, dry, and multiple dry years.

Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881) requires cities and counties, including charter cities and charter counties, to adopt landscape water conservation ordinances by January 1, 2010. The Department of Water Resources (DWR) prepared an updated Model Water Efficient Landscape Ordinance (MWELo), as contained in *California Code of Regulations* Title 23, Division 2, Chapter 2.7. Cities and counties have the option to adopt DWR’s ordinance or to develop their own. DWR’s ordinance identifies the landscape documentation that needs to be submitted to the local agency, including a completed Water Efficient Landscape Worksheet that estimates total water use and compares it to the Maximum Applied Water Allowance (MAWA) based on the annual reference evapotranspiration value for the project area. The MAWA is considered the water budget and should not be exceeded by the estimated water use. Standards for soil management, landscape design, irrigation design and efficiency, grading design, irrigation scheduling, maintenance, audit and survey of water use, recycled water, storm water management, public education, and wastewater prevention are provided to reduce irrigation water demand. The City of Pasadena has incorporated DWR’s MWELo into its Municipal Code (Section 17.44.050).

Senate Bill 7

Senate Bill 7 (SBX7-7) was approved in November 2009 and requires urban water retail suppliers in California, which includes the City of Pasadena, to reduce per capita water use by at least 10 percent on or before December 31, 2015 and achieve a 20 percent reduction by December 31, 2020. An urban retail water supplier must have included in its urban water management plan for the 2010 update, the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data. Urban wholesale water suppliers shall

¹ SB 610 amended section 21151.9 of the *California Public Resources Code*, and amended sections 10631, 10656, 10910, 10911, 10912, and 10915 of, repealed section 10913 of, and added and amended section 10657 of, the *California Water Code*.

include an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this bill.

Urban retail water suppliers and agricultural water suppliers would not be eligible for State water grants or loans for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation unless they comply with the water conservation requirements established by this bill.

Title 24 Green Building Standards

The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen code, contains mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in greenhouse gas (GHG) emissions from buildings; (2) promote environmentally responsible, cost effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The CALGreen Code contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, such as heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

Section 5.408 of the current CALGreen code requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

California Plumbing Code

Part 5 of the California Building Code (Title 24 of the Code of Regulations) is the California Plumbing Code, which provides standards for the design and construction of water and sewer systems, storm drains, and recycled water systems in buildings. It prohibits connection to a septic tank in areas served by a public sewer system and requires the proper abandonment of septic tanks, cesspools, and seepage pits.

AB 939 and California Solid Waste Reuse and Recycling Access Act of 1989

In 1989, the California legislature passed a bill (Assembly Bill [AB] 939), which requires jurisdictions to reduce the amount of solid waste disposed of in landfills by 50 percent by the year 2000 and thereafter. The purpose of AB 939 is to “reduce, recycle, and reuse solid wastes generated in the State to the maximum extent feasible”. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

Subsequent to AB 939, additional legislation was passed to assist local jurisdictions in accomplishing the required waste reduction goals. The California Solid Waste Reuse and Recycling Access Act of 1991 directs CalRecycle to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects.

Solid Waste Disposal Measurement Act of 2008 (Senate Bill 1016)

The purpose of the Solid Waste Disposal Measurement Act of 2008 (SB 1016) is to make the process of goal measurement (as established by AB 939) simpler, timelier, and more accurate.

SB 1016 builds on AB 939 compliance requirements by implementing a simplified measure of jurisdictions' performance. SB 1016 accomplishes this by changing to a disposal-based indicator—the per capita disposal rate—which uses only two factors: (1) a jurisdiction's population (or in some cases employment) and (2) its disposal as reported by disposal facilities.

Each year CalRecycle will calculate each jurisdiction's per capita (per resident or per employee) disposal rates; the per capita disposal rate will be used for most jurisdictions. Each year's disposal rate will be compared that jurisdiction's 50 percent per capita disposal target. As such, jurisdictions will not be compared to other jurisdictions or the statewide average, but they will only be compared to their own 50 percent per capita disposal target. Among other benefits, per capita disposal is an indicator that allows for jurisdiction growth because as residents or employees increase, report-year disposal tons can increase and still be consistent with the 50 percent per capita disposal target. A comparison of the reported annual per capita disposal rate to the 50 percent per capita disposal target will be useful for indicating progress, or other changes, over time.

75 Percent Initiative

In 2011, Governor Brown signed AB 341, which sets a goal of 75 percent recycling, composting, or source reduction of solid wastes by 2020. It also mandated commercial recycling by 2012. The 75 percent goal will shift the focus from local diversion to a Statewide approach that would decrease reliance on landfills. CalRecycle has been holding workshops with stakeholders since May 2012 to identify existing programs and new ways to reduce the waste streams. A number of programs will be implemented under this initiative, including continued local jurisdiction diversion; commercial recycling; mattress recovery; greenhouse gas reduction grant and loan program; commercial organics recycling; potential packaging reduction activities; and other new programs that are under development.

Mandatory Commercial Organics Recycling Bill (AB 1826)

In 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. The minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

Short-Lived Climate Pollutant Reduction Strategy (AB 1383)

In September 2016, Governor Brown signed AB 1383, which set methane emissions reduction targets for California in a Statewide effort to reduce emissions of short-lived climate pollutants. The AB 1383 targets are to:

- Reduce organic waste disposal 50 percent by 2020 and 75 percent by 2025.
- Rescue for people to eat at least 20 percent of currently disposed surplus food by 2025.

While the ultimate goal of this bill is to reduce greenhouse gas emissions, it also serves to help reduce landfill disposal of a segment of municipal waste.

Regional

Sanitation Districts of Los Angeles County Wastewater Ordinance

In 1972, the LACSD adopted a Wastewater Ordinance, which was most recently amended in 1998, for the operation and financing of the LACSD's wastewater conveyance, treatment, and disposal facilities. The Wastewater Ordinance applies to all direct and indirect discharges of wastewater to any part of the sewerage system and regulates industrial wastewater discharges to protect the public sewerage system. The LACSD also charges Connection Fees and Surcharges. The Surcharge program requires all industrial companies discharging to the LACSD's sewerage system to pay their fair share of the wastewater treatment and disposal costs. The Connection Fee program requires all new users of the LACSD's sewerage system, as well as existing users that significantly increase the quantity or strength of their wastewater discharge, to pay their fair share of the costs for providing additional conveyance, treatment, and disposal facilities. The LACSD uses the fees for the expansion and improvement of their facilities, as needed, to serve existing and anticipated developments.

City

Urban Water Management Plan

The 2020 Urban Water Management Plan (UWMP) for the City of Pasadena was prepared to meet the mandates of the California Urban Water Management Planning Act. The 2020 UWMP identifies historic and projected water supplies available to the City of Pasadena; existing and projected water demand; available water rights; and programs to meet demand during an average year, single-dry year, and a five consecutive year drought. The UWMP is the foundational document for compliance with both the *California Water Code* and SB 610 and SB 221 documentation for applicable development projects in the City (PWP 2021a).

Water System and Resources Plan

The Water System and Resources Plan (WSRP) for the City of Pasadena, adopted by the City Council on October 4, 2021, is a 25-year strategy that integrates investments for sustainable water resources with the infrastructure necessary to ensure high quality water service continues to be provided now and in the future. This is the first time that PWP has combined a long-term resource plan and an infrastructure master plan, as these were previously two separate documents. The comprehensive WSRP document provides the programmatic view of the entire water operations from the source to the customers' tap. The WSRP is proposed to be revisited every five years with an internal review every two to three years. This type of periodic review is intended to ensure that the WSRP addresses evolving issues and local, regional, State or federal considerations.

The WSRP evaluates the current and projected needs of the customers for potable and non-potable water that provides risk-based screening of alternatives to meet future demands with necessary infrastructure within the reasonable operational and financial constraints. Major considerations include water quality, greater dependency on local water, groundwater basin stability, reliability of the distribution system, affordability, climate change uncertainties, and legislative and regulatory requirements (PWP 2021b).

Municipal Code

Chapter 13.10, Water Waste Prohibitions and Water Supply Shortage Plans, of the Pasadena Municipal Code (PMC) establishes 13 permanent water conservation requirements. Section 17.44.050 et. seq. of the PMC establishes the City's Model Water Efficient Landscape Ordinance (MWELo), consistent with State requirements.

Chapter 13.24 of the PMC includes sewer construction and maintenance standards and requirements. Chapter 4.52 of the PMC establishes sewer use rates; and Chapter 4.53 of the PMC ensures that new development pays its estimated cost for any capacity upgrades to the City sewer system through the payment of the sewer facility charge.

Chapters 8.60 of the PMC discusses City collection services, collection frequency and time, service fees, waste reduction, waste container, and bulky item pick up. Chapter 8.61 of the PMC addresses collecting, transporting, disposing, and/or recycling of solid waste to maintain the health, safety, public welfare, and quality of life in the City. It also addresses the franchisee recycling diversion rates for solid waste, and construction and demolition debris. Chapter 8.62 of the PMC requires all covered projects to divert a minimum of 75 percent of construction and demolition debris pursuant to State and local statutory goals and policies. Additionally, specific waste management plans and final compliance reports are also required. The Project and Project with Building A Residential/Commercial would be a covered project.

3.11.3 THRESHOLDS OF SIGNIFICANCE

The following significance criteria are derived from Appendix G of the State CEQA Guidelines. A project would result in a significant adverse impact related to utilities and service systems if it would:

- Threshold 3.11a:** Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects;²
- Threshold 3.11b:** [Not] have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- Threshold 3.11c:** Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Threshold 3.11d:** 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; and/or
- Threshold 3.11e:** [Not] comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

² The Initial Study (provided in Appendix A-1) concluded that all thresholds related to hydrology and water quality, including storm drainage capacity, would result in no impacts or less than significant impacts and were not carried forward into the Draft EIR.

3.11.4 METHODOLOGY

The wet and dry utility service providers were consulted for information regarding current infrastructure and/or capacity and to determine if the proposed Project or Project with Building A Residential/Commercial would significantly impact the respective providers' capacity such that relocation or construction of new or expanded wet or dry utilities would be required, whose construction could result in an environmental impact. Other information presented in this section was derived from CalRecycle's website, City's website, the adopted General Plan and related EIR, the NOP comment letter from the LACSD, and LACPW's *Countywide Integrated Waste Management Plan 2019 Annual Report*.

3.11.5 ENVIRONMENTAL IMPACTS

Threshold 3.11a: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities the construction or relocation of which could cause significant environmental effects?

Threshold 3.11c: Would the Project 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?

Project

As shown on Exhibit 2-17a and 2-17b, Conceptual Utility Plans, in Section 2.0, Environmental Setting and Project Description, all connections to water and wastewater utilities and all dry utilities would occur on the east side of the proposed buildings, either within the adjacent sidewalk or in South Arroyo Parkway.

Water Infrastructure

As discussed above, PWP provides potable water to City residents and businesses. The Project would include installation of new potable and fire water connections to the existing PWP water lines. As discussed in Section 2.0, Environmental Setting and Project Description, all connections to wet and dry utilities would occur to the east on South Arroyo Parkway. Refer to Exhibits 2-17a and 2-17b, Conceptual Utility Plans, in Section 2.0 to see the locations of existing wet and dry utilities and the locations of proposed connections to utilities. There would be a less than significant impact related to the need for new, expanded, or relocated water infrastructure, and no mitigation is required.

The proposed water infrastructure would be constructed within the Project site as defined in Section 2.0 and the potential for construction-related impacts are analyzed throughout this Draft EIR, including short-term air quality (Section 3.1) and noise (Section 3.7).

Wastewater Conveyance and Treatment

As shown on Exhibit 2-17a and 2-17b, Conceptual Utility Plans, the Project would tie into the existing 8-inch diameter City of Pasadena sewer line within the eastern portion of Arroyo Parkway and would flow east at the connection with the 8-inch-diameter line in California Boulevard. Sewer line capacity is part of the City's standard plan check/project approval process. No relocation or construction of new or expanded City-owned sewer lines has been determined necessary with Project implementation.

Wastewater flow in the City's local sewer lines serving the site discharge to either or both the LACSD's Arroyo Seco Section 4 Trunk Sewer or Arroyo Seco Section 5 Trunk Sewer. The LACSD's 21-inch-diameter Arroyo Seco Section 4 Trunk Sewer has a capacity of 69.0 mgd and conveyed a peak flow of 2.1 mgd when last measured in 2015. The 16-inch-diameter Arroyo Seco Section 5 Trunk Sewer has a capacity of 4.3 mgd and conveyed a peak flow of 0.4 mgd when last measured in 2015. As discussed above, LACSD indicates that wastewater from the Project would be conveyed and treated at either the Whittier Narrows WRP, which has a remaining capacity of 5.1 mgd, or the Los Coyotes WRP, which has a remaining capacity of 16.2 mgd (LACSD 2021a).

The LACSD estimates a total of 92,642 gpd of wastewater generation from both the Project and Project with Building A Residential/Commercial (LACSD 2021a). The LACSD estimate does not include Whole Foods Market. As shown in Table 3.11-5 above, based on the LACSD's applicable wastewater generation rates, all existing uses on the Project site (including those to be retained and those to be replaced but not including Whole Foods Market) generate approximately 15,798 gpd of wastewater. Therefore, the Project would result in a net wastewater generation of approximately 76,844 gpd (0.076 mgd) from all uses on the site except Whole Foods Market. Wastewater flows of approximately 0.076 mgd represent 0.1 percent of the Arroyo Seco Section 4 Trunk Sewer, 1.8 percent of the Arroyo Seco Section 5 Trunk Sewer, 1.5 percent of the Whittier Narrows WRP, and 0.5 percent of the Los Coyotes WRP remaining capacity. Therefore, there would be no relocation or construction of new or expanded LACSD-owned sewer lines or wastewater treatment facilities with Project implementation. There would be a less than significant impact, and no mitigation is required.

Dry Utilities (Electrical, Natural Gas, and Telecommunications)

As shown on Exhibits 2-17a and 2-17b, in Section 2.0 of this EIR, the Project would tie into existing underground electric and telecommunications lines located in the sidewalk on the west side of Arroyo Parkway (adjacent to the site) and the existing natural gas line located along the east side of Arroyo Parkway. There are four existing natural gas meters within the eastern portion of the site; the Project proposes to tie in and reuse these gas meters and associated laterals crossing under Arroyo Parkway.

Electric and natural gas services are regulated by the California Public Utilities Commission (CPUC), which requires that these utilities provide services as required by the public. Telecommunications services are provided on demand in a free market system. The need for new, expanded, and/or relocated dry utilities would be determined as part of future individual projects and dependent on the conditions at each project site. There would be less than significant impacts related to the relocation or construction of dry utility infrastructure to serve the Project, and no mitigation is required.

Project with Building A Residential/Commercial

Water Infrastructure

The analysis of wet and dry utilities service for the Project with Building A Residential/Commercial would be the essentially the same as the Project. As with the Project, all connections to water and wastewater utilities and all dry utilities would occur on the east side of the proposed buildings, either within the adjacent sidewalk or in South Arroyo Parkway. The proposed water infrastructure would be constructed within the Project site as defined in Section 2.0, and the potential for construction-related impacts are analyzed throughout this Draft EIR, including short-term air quality (Section 3.1) and noise (Section 3.7). There would be a less than significant impact related to the need for new, expanded, or relocated water infrastructure, and no mitigation is required.

Wastewater Conveyance and Treatment

There would be similar wastewater generation for the Project with Building A Residential/Commercial. Therefore, as discussed for the Project, no relocation or construction of new or expanded City-owned sewer lines has been determined necessary.

As discussed above, the LACSD estimated the same wastewater generation for the Project and Project with Building A Residential/Commercial (LACSD 2021a). With consideration of the estimated wastewater generation from the existing land uses, there would be a net wastewater generation of approximately 76,844 gpd (0.076 mgd) from all uses on the site except Whole Foods Market. This represents a nominal percentage of the LACSD's trunk sewer or WRPs that serve the site. Therefore, there would be no relocation or construction of new or expanded LACSD-owned sewer lines or wastewater treatment facilities with implementation of the Project with Building A Residential/Commercial. There would be a less than significant impact, and no mitigation is required.

Dry Utilities (Electrical, Natural Gas, and Telecommunications)

As with the Project, the Project with Building A Residential/Commercial would tie into existing electric infrastructure bordering the site. As such, there would be less than significant impacts related to the relocation or construction of dry utility infrastructure, and no mitigation would be required.

Threshold 3.11b: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Project

2020 Water Demand

PWP provides potable and non-potable water for a mix of urban uses that includes residential, commercial, and governmental uses. There are no agricultural water services in the PWP's service area; however, a portion of water delivered is provided exclusively for landscape irrigation purposes. The gross water use entering PWP's distribution system is the total volume of water produced by PWP from local groundwater, plus the water imported from MWD, plus the groundwater purchased from local water agencies, minus the water delivered to other suppliers.

The total PWP water demands are based on water use sectors by starting with 2020 records of water sales by customer class, then using projected growth numbers for housing units and employment. The water demands incorporate passive conservation (code-based and price-effect savings) and active conservation (for installed active devices through 2020). Losses are assumed to be equal to the five-year average of losses from 2015 to 2019, which is approximately 6 percent to 9 percent of potable direct use demand. It is assumed that existing codes and ordinances related to water conservation would remain in place. Table 3.11-6, PWP's 2020 Water Demands, on the following page summarizes the calendar year 2020 water deliveries (ESA 2022).

**TABLE 3.11-6
PWP'S 2020 WATER DEMANDS**

Water Use Category	Total Volume (af)
Single-family residential	13,593
Multi-family residential	5,190
Commercial	6,530
Institutional/Governmental	1,311
Other Potable	80
Losses	2,586
Total Direct Use Demand	29,290
af: acre-feet	
Source: ESA 2022 (via <i>Pasadena Water and Power Final 2020 Urban Water Management Plan</i>).	

Historic Water Demands for Existing Land Uses

As shown in Table 3.11-4 above, existing water demand for all uses at the Project site is estimated at 30.72 afy. Whole Foods Market, which has an estimated annual water demand of 12.38 afy, would remain on the Project site and continue to generate water demands throughout construction and operation of the Project. Two existing buildings totaling approximately 5,882 square feet (sf) would also remain on the Project site; fast-casual restaurant uses are proposed to replace the existing retail uses and are analyzed in these two buildings as part of the Project water demand analysis (ESA 2022). The estimated water demand for all land uses to be removed or replaced (i.e., retail businesses at 501 and 523 South Arroyo Parkway) is 18.34 afy. As a conservative assumption, landscape water is not included in the historical water demands, which results in a slight overestimation of the Project's net increase in water demand relative to existing conditions (ESA 2022).

Projected Water Demand

Projected water use can be determined by examining past and current water use trends, along with consideration of land use planning data, climate change, and other factors relevant to sector-specific water use.

The City consists of a mix of land uses, including residential, commercial, industrial, institutional, and open space, with residential and commercial being the dominating uses. The City is largely built-out, and there are few vacant sites available for new developments. As such, growth is expected to be due primarily to increases in housing density and land use intensity.

Past water use, as it relates to PWP's service area, is detailed in its 2020 UWMP. MWD as the regional wholesale water supplier, prepares water resources reports, studies, and plans necessary to manage its regional water supplies based on current and future supply and demand scenarios. As part of its 2020 UWMP, MWD provided PWP and other member agencies with population and supply and demand calculations. Potable water demand for 2025, 2030, 2035, and 2040 are estimated by using the total retail demand projections provided by MWD as part of the regional planning process. Potable water demand for 2045 is sourced from the WSRP (Pasadena 2021b). Table 3.11-7, PWP Projected Water Demand (AF), presents the projected demand by water use classes. As shown, total demand is generally expected to increase, primarily due to the expected increase in housing units (ESA 2022).

**TABLE 3.11-7
PWP PROJECTED WATER DEMAND (AF)**

Water Use Category	2025	2030	2035	2040	2045
Single-Family	12,800	12,000	11,900	11,800	Not Available
Multi-Family	4,800	4,550	5,000	5,250	
Other	100	100	150	180	
Commercial	6,500	5,900	5,850	6,000	
Institutional/Governmental	900	850	870	900	
Unaccounted-for Losses	1,650	1,600	1,550	1,500	
Total	26,750	25,000	25,320	25,630	25,950
af: acre-feet					
Source: ESA 2022. (via Pasadena Water and Power Final 2020 Urban Water Management Plan and Water System and Resources Plan)					

Project Water Demand

Construction

Project construction activities are anticipated to commence in 2023 and be completed in 2026. Over this period, water would be used for dust control purposes during demolition, excavation, grading activities, equipment cleaning, vehicle wash downs, washout basins, and re-compaction of backfill materials, concrete pouring, and other construction-related uses. Based on construction projects of similar size and duration, a conservative estimate of construction water use is up to 50 gallons per day per 1,000 square feet (50 gpd/1,000 sf). Construction activities for the Project would occur on a site area of approximately 90,400 sf. Based on water use of 50 gpd/1000 sf of construction activities at the Project site, water use during construction is assumed to be 4,520 gpd. Water use during the 34-month (approximately 1,020 days) construction period would be up to approximately 4.61 million gallons (MG) or 14.1 af. Calculated annually, this would be approximately 1.63 MG/year or 4.99 afy for approximately 3 years of construction (ESA 2022).

Operation

Once fully operational, the expected water use of the Project is determined by analyzing demand based on planned uses. To determine the water demand factors of the Project, water use demand factors were formulated based on data from PWP's 2020 UWMP as well as current and historical uses at similar facilities and information from similar mixed-use projects. The Project water demand includes all indoor uses and landscape irrigation in all water year types. Table 3.11-8, Project Water Demand, presents the estimated annual water demand for the Project. The calculated demand of 93.91 afy (approximately 94 afy) represents the worst-case scenario (conservative estimate) of the potential demand for the Project. When considering the existing land uses on the site that generate an annual water demand of 30.72 afy, the net water demand for the Project would be 75.57 afy (approximately 76 afy) (ESA 2022).

In all water year types, including single-dry and multiple-dry years, it is anticipated that the worst case (conservative estimate) Project demand of approximately 76 afy would remain unchanged, unless consumers within the City's service area are specifically asked to reduce water use through active conservation measures described in PWP's 2020 UWMP (ESA 2022).

**TABLE 3.11-8
PROJECT WATER DEMAND**

Proposed Land Use	Amount	Units	Generation Rate	GPD	AFY
Project Land Uses					
Medical Office Building (A)					
Medical Office Building	151,000	sf	300 gpd/1,000 sf	45,300	50.74
Commercial (Fast Casual Restaurant)	3,000	sf	1,000 gpd/1,000 sf	3,000	3.36
Assisted Living Facility (B)					
Independent Living - Studios	28	du	156 gpd/du	4,368	4.89
Independent Living – 1 BR	53	du	156 gpd/du	8,268	9.26
Independent Living – 2BR	14	du	195 gpd/du	2,730	3.06
Assisted Living	113	beds	125 gpd/bed	14,125	15.82
Commercial (Fast Casual Restaurant)	5,882	sf	1,000 gpd/1,000 sf	5,882	6.59
Landscaping^a	N/A	N/A	170 gpd	170	0.19
Subtotals				83,843	93.91
Existing Land Use to Remain					
Whole Foods Market ^b	73,671	sf	150 gpd/1,000sf	11,051	12.38
Totals				94,894	106.29
Net Water Demand (Less 30.72 AFY for Existing Uses)					75.57
^a Landscaping water demand is based on estimated annual average daily water demand. ^b Existing structure and land use to be retained and continue operation in the existing condition du: dwelling units; sf: square feet; gpd: gallons per day; gpy: gallons per year; afy: acre-feet per year; N/A: not applicable Source: ESA 2022.					

Water Supply Sufficiency

MWD's Water Supply Sufficiency

MWD strives for a “diverse water portfolio” that allows it to meet demand even in years when its primary supplies would be inadequate. In fact, MWD has developed a water supply portfolio capable of meeting all demands in any given year. As documented in its 2020 UWMP, MWD plans for drought conditions and potential water shortages, and therefore has taken measures to have water in storage within its existing water supply systems and facilities to use during years when SWP and CRA supplies are curtailed. Using surplus water from normal and wet years, MWD's large storage portfolio contains both dry-year storage and emergency storage that can be used to meet demand in case of shortages.

As documented in its 2020 Integrated Resource Plan (IRP), scenario planning components are being used to predict a broader range of possible water supply and demand future scenarios. MWD's UWMP, its Water Shortage Contingency Planning (WSCP) and Drought Risk Assessments (DRA) use a similar approach to assess reliability of water supplies and sufficiency to meet demand. Operational studies used in the WSA demonstrate that MWD has sufficient water supply to meet the anticipated future demand for every hydrologic year on record. Therefore, MWD does not anticipate any reductions in water supply availability, even if SWP and/or CRA supplies are curtailed due to drought and/or water quality concerns over the study period. In years of above-average rainfall, MWD can store more water throughout its storage system, effectively building up more supplies for single-dry or multiple-dry years (ESA 2022).

MWD's and PWP's UWMPs address climate change and its impact on supplies as required by DWR in their UWMP Guidelines. More recent actions, such as DWR's initial SWP allocation of 0 percent for 2022 in December 2021 with planned reassessment in early 2022 (DWR 2021a), while not specifically mentioned in MWD's UWMP, should not be a cause for alarm as their single dry year projections for supply addressed near zero supply and there is adequate supply in storage to cover the small difference. Additionally, the DWR's initial SWP allocation is typically set low (conservative) and the Spring allocation is typically adjusted upwards, based on rainfall and snowpack figures. While the heavy December rainfall and the December 30, 2021, Sierra snowpack value of 202 percent of average for this time of year (DWR 2021b) do not guarantee an end to the current drought, it is positive news and could enable DWR to increase the SWP allocation in April.

CRA supplies are in the news recently and will be declining to all western states based on low reservoir levels on that system due to drought conditions. However, these reductions were also included in MWD's scenario planning in their IRP, UWMP, WSCP, and DRA. Additionally, starting with 2022, DWR now requires each agency that prepares an UWMP (including MWD and PWP) to prepare an Annual Water Shortage Assessment to address current water supply and demand conditions and file a report with DWR beginning July 1, 2022, and by July 1st of each successive year. If a supply shortage is predicted, the agency is required to show what demand reduction measures will be undertaken to eliminate any shortfall as required by Section 10632.1 of the Water Code. This annual assessment and associated reporting are to be conducted based on the supplier's procedures detailed in their WSCP. PWP will coordinate with their regional suppliers, MWD and the Watermaster to prepare this annual assessment.

PWP's Water Supply Sufficiency

Table 3.11-9, PWP Normal-Year Potable Water Supply and Demand Comparison (AFY), summarizes the City's projected supply and demand over an approximate 25-year planning horizon out to 2045 under normal water year conditions. As shown in Table 3.11-9, PWP can satisfy all customer demands.

**TABLE 3.11-9
PWP NORMAL-YEAR POTABLE WATER SUPPLY AND DEMAND
COMPARISON (AFY)**

Water Supply Source	2025	2030	2035	2040	2045
Supply Totals	31,087	31,192	31,284	31,537	31,409 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,328	6,192	5,964	5,907	5,459
^a The 2045 supply total is projected based on a second order polynomial extrapolation (e.g., curve of best fit) from year 2025, 2030, 2035, and 2040 data in the PWP Final 2020 Urban Water Management Plan. The anticipated 2045 imported water projected in this table may differ from PWP's official projection in future updates to its 2020 UWMP.					
^b PWP 2020 Water System and Resource Plan (Appendix A, p. A-6)					
afy: acre-feet per year					
Source: ESA 2022 (via Pasadena Water and Power Final 2020 Urban Water Management Plan and Water System and Resources Plan).					

The future water demand for the City and the entire region has been estimated by MWD using its new Econometric Demand Model, which uses forecast data from SCAG for variables including population, housing units, and employment. Although the City is using lower demand projections, which consider the reductions to meet 20x2020 targets, these MWD projections provide the basis for dry-year reliability planning.

PWP's 2020 UWMP projects that neither PWP nor its customers would experience supply deficits in normal or non-drought years through the year 2040. As a result, PWP does not expect critical shortages during the 20-year planning period. When taking dry and multiple dry years into account, PWP's water supply and demand forecasting model projected that beginning in 2020 and extending to 2040, PWP can meet its service area water demand approximately 91 percent of the time without implementing conservation measures. While in the remaining 9 percent of this period, the projected water supply shortage could range from approximately 1,000 to 1,500 afy. Additionally, based on extrapolated data from PWP's 2020 UWMP, critical shortages would not be expected through 2045. Chapter 8, Water Shortage Contingency Plan, of the PWP 2020 UWMP, explains how PWP intends to act in the case of an actual water shortage condition. The WSCP anticipates a water supply shortage and provides pre-planned guidance for managing and mitigating a shortage. Prior to invoking the WSCP, PWP can implement voluntary or mandatory demand management measures (DMMs), as described in detail in Chapter 9 of its 2020 UWMP. Through planned implementation of DMMs, PWP forecasts that no critical shortages will take place during the 20-year planning period. PWP has continuously implemented a water conservation program since 1991. Voluntary and mandatory DMMs can reduce demand by 10 percent up to as much as 25 percent in some years.

PWP may also implement water conservation measures pursuant to Chapter 13.10 of the PMC when the City Council determines, in its sole discretion, that due to drought or other water supply conditions a water supply shortage or threatened shortage exists and demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions. On August 16, 2021, the Pasadena City Council unanimously approved a proposal to implement the Level 2 Water Supply Shortage Plan and to establish a voluntary water reduction target of 15 percent, which aligns with the state's reduction goal. Per Section 13.10.045 of the PMC, during a declared Level 2 water supply shortage, the following water conservation requirements apply:

1. Limits on Watering Days: Watering or irrigating of lawn, landscape or other vegetated area with water is limited to 2 days per week from April 1 through October 31, and no more than 1 day per week from November 1 through March 31, on a schedule established and posted by the department. This subsection does not apply to categories of use determined to be exempt under Section 13.10.037 of this chapter.
2. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks or other malfunctions in the water user's plumbing or distribution system shall be repaired within 48 hours of notification by the department unless other arrangements are made with the department.
3. Limits on Filling Ornamental Lakes or Ponds: Filling or re-filling ornamental lakes or ponds is prohibited, except to the extent needed to sustain aquatic life, or for lakes and ponds that may be used for wildfire suppression.

The water conservation target and Level 2 Water Shortage Plan became effective immediately upon approval by the City Council and is in effect until such time as the City Council determines that a water supply shortage no longer exists or that another water supply shortage plan is necessary. The PMC also establishes water conservation measures for Level 3 and 4 water supply shortages where determined to exist by the City Council.

Table 3.11-10, PWP Single-Dry-Year Potable Water Supply and Demand Comparison (AFY), on the following page, and Table 3.11-11, PWP Multiple-Dry-Year Potable Water Supply and Demand Comparison (AFY), on page 3-22 provide a comparison of supply to demand during single-dry- and multiple-dry-year periods, respectively. As shown in these tables, water demand in the City would increase over the 25-year planning period. Water supplies provided by MWD

and supplemented by groundwater supplies are sufficient to meet demand. PWP can meet existing demand, in addition to new demand created by the Project, and no shortfall would occur (ESA 2022).

Multiple-Dry Years

As shown in Table 3.11-11, the City's water supply during a dry period could exceed the supplies used during a normal year given the ability to purchase additional imported supplies from its wholesaler, MWD. Furthermore, MWD projects sufficient supplies and storage to meet demands in future single- and multiple-dry-year scenarios. MWD's contingency plan for responding to water shortages is the Water Supply Allocation Plan (WSAP). The WSAP is based on a guiding principle for allocating shortages across MWD's service area. The WSAP formula uses different adjustments and credits to balance impacts of water shortage at the retail level, where local supplies can vary dramatically, and provide equity on the wholesale level among member agencies. It also considers the following: growth in demand, local investments, change in local supply conditions, the reduction in potable water demand from recycled water, and the implementation of water conservation programs.

As shown in Table 3.11-12, Five-Year Drought Risk Assessment, on page 3-11-22, PWP has chosen to use the same dry-year hydrologic scenarios as MWD. This allows PWP to use information about imported water supply reliability derived from modeling completed through the 2015 IRP Update process. Due to MWD's investments in continued reliability and sustainability programs that consider climate change issues, the projections shown in Table 3.11-12 do not vary. Therefore, the City's supply is determined to be reliable in normal-, single-dry-, and multiple-dry-year scenarios, with additional supplies purchased from MWD to meet demands in dry years as needed (ESA 2022).

**TABLE 3.11-10
PWP SINGLE-DRY-YEAR POTABLE WATER SUPPLY
AND DEMAND COMPARISON (AFY)**

	2025	2030	2035	2040	2045
Supply Totals	31,886	32,003	32,098	31,172	32,224 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	5,136	7,003	6,778	6,542	6,274
^a The 2045 supply total is projected based on a second order polynomial extrapolation (e.g., curve of best fit) from year 2025, 2030, 2035, and 2040 data in the PWP Final 2020 Urban Water Management Plan. The anticipated 2045 imported water projected in this table may differ from PWP's official projection in future updates to its 2020 UWMP.					
^b PWP 2020 Water System and Resource Plan (Appendix A, p. A-6)					
afy: acre-feet per year					
Source: ESA 2022 (via Pasadena Water and Power Final 2020 Urban Water Management Plan and Water System and Resources Plan).					

**TABLE 3.11-11
PWP MULTIPLE-DRY-YEAR POTABLE WATER SUPPLY
AND DEMAND COMPARISON (AFY)**

Years	2025	2030	2035	2040	2045
Year 1					
Supply Totals	31,533	31,943	32,047	32,130	31,978 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,783	6,943	6,727	6,500	6,028
Year 2					
Supply Totals	31,533	31,943	32,047	32,130	31,978 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,783	6,943	6,727	6,500	6,028
Year 3					
Supply Totals	31,533	31,943	32,047	32,130	31,978 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,783	6,943	6,727	6,500	6,028
Year 4					
Supply Totals	31,533	31,943	32,047	32,130	31,978 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,783	6,943	6,727	6,500	6,028
Year 5					
Supply Totals	31,533	31,943	32,047	32,130	31,978 ^a
Demand Totals	26,750	25,000	25,320	25,630	25,950 ^b
Difference	4,783	6,943	6,727	6,500	6,028
^a The 2045 supply total is projected based on a second order polynomial extrapolation (e.g., curve of best fit) from year 2025, 2030, 2035, and 2040 data in the PWP Final 2020 Urban Water Management Plan. The anticipated 2045 imported water projected in this table may differ from PWP's official projection in future updates to its 2020 UWMP.					
^b PWP 2020 Water System and Resource Plan (Appendix A, p. A-6)					
afy: acre-feet per year					
Source: ESA 2022 (via Pasadena Water and Power Final 2020 Urban Water Management Plan and Water System and Resources Plan).					

**TABLE 3.11-12
FIVE-YEAR DROUGHT RISK ASSESSMENT**

	2021	2022	2023	2024	2025
Total Water Use (afy)	28,500	28,065	27,625	27,200	26,750
Total Supplies (afy)	29,290	31,533	31,533	31,533	31,533
Surplus/Shortfall w/o WSCP Action	790	3,468	3,908	4,333	4,783
Planned WSCP Actions (Use Reduction and Supply Augmentation)					
WSCP – Supply Augmentation Benefit	182	182	182	182	182
WSCP – Use Reduction Savings Benefit	56	1,129	1,129	1,129	1,129
Revised Surplus / (Shortfall)	1,028	4,779	5,219	5,644	6,094
Resulting Use Reduction from WSCP Action	0%	4%	4%	4%	4%
afy: acre-feet per year; WSCP: Water Supply Contingency Plan					
Source: ESA 2022 (via Pasadena Water and Power Final 2020 Urban Water Management Plan and Water System and Resources Plan).					

Even though Tables 3.11-10 and 3.11-11 show available MWD supply is sufficient to meet PWP's demands, based on MWD's IRP model simulations for the future under different hydrology conditions, it is possible that some extreme dry years could result in MWD shortage allocations. MWD's model does show some potential years in which shortage allocations would be applied, reducing supply to PWP. For the years in which MWD supply could be reduced, the WSCP is in place. Table 3.11-12 provides the data for a five-year drought risk assessment both with and without the WSCP in place.

The WSA concludes that the City has sufficient water supplies under all hydrologic conditions, through agreements with and provided by MWD and use of its existing groundwater pumping rights from the RB. Because of MWD's long-term success of delivery of water to all customers and commitment to continue to serve treated water to all retailers, when SWP and CRA curtailments occur, MWD has supply flexibility through its vast network of water supply facilities and long-term water management programs to continue to meet all demands. In addition, PWP could pump additional local groundwater during drought, emergency, or other surface supply reductions to meet demands in the future. Furthermore, consumers and retailers could effectively reduce demands by 10 or 25 percent to relieve demand pressure on local and regional supplies. It is reasonable to assume, based on the consumer demand reductions that PWP customers would continue to curb per-capita use and when necessary, based on water supply allocations, customers could reduce per capita demands by up to 25 percent (ESA 2022).

Project Water Supply Sufficiency

As discussed above, in normal years the Project would conservatively generate an estimated 76 afy of new water demand, or about 0.24 percent of the City's anticipated total system supply of 31,078 afy in 2025, 0.24 percent of the supply of 31,537 afy in 2040, and 0.24 percent of the supply of 31,409 afy in 2045 (ESA 2022).

As stated previously, the 2020 UWMP aligns with Pasadena's population and land use and is consistent with SCAG population and employment projections; and thereby includes potential water demands that would be generated by land use changes and new commercial and residential developments like the Project. Additionally, PWP staff reviewed the WSA for the Project and concluded that the WSA meets the requirements of SB 610 and SB 221 and concurs that PWP would have sufficient water supplies to meet existing demands combined with the Project's estimated demands of 76 afy and cumulative demands anticipated in the 2020 UWMP (PWP 2022). Therefore, there would be sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. There would be a less than significant impact related to water supplies, and no mitigation is required.

Project with Building A Residential/Commercial

Table 3.11-13, Project with Building A Residential/Commercial Water Demand, on the following page presents the estimated annual water demand for the Project with Building A Residential/Commercial. The Project with Building A Residential/Commercial water demand includes all indoor uses and landscape irrigation in all water year types. The calculated demand of 86.20 (approximately 86 afy) represents the worst-case scenario (conservative estimate) of the potential demand for the Project with Building A Residential/Commercial. When considering the existing land uses on the site and which generate an annual water demand of 30.72 afy, the net water demand for the Project with Building A Residential/Commercial would be 67.86 afy (approximately 68 afy) (ESA 2022).

**TABLE 3.11-13
PROJECT WITH BUILDING A WITH RESIDENTIAL/COMMERCIAL
WATER DEMAND**

Proposed Land Use	Amount	Units	Generation Rate	GPD	AFY
Project with Building A Residential/Commercial Land Uses					
Medical Office Building (A)					
Residential ^a	197	sf	195 gpd/du	38,415	43.03
Commercial (Fast Casual Restaurant)	3,000	sf	1,000 gpd/1,000 sf	3,000	3.36
Assisted Living Facility (B)					
Independent Living - Studios	28	du	156 gpd/du	4,368	4.89
Independent Living – 1 BR	53	du	156 gpd/du	8,268	9.26
Independent Living – 2BR	14	du	195 gpd/du	2,730	3.06
Assisted Living	113	beds	125 gpd/bed	14,125	15.82
Commercial (Fast Casual Restaurant)	5,882	sf	1,000 gpd/1,000 sf	5,882	6.59
Landscaping^b	N/A	N/A	170 gpd	170	0.19
Subtotals				76,956	86.20
Existing Land Use to Remain					
Whole Foods Market ^c	73,671	sf	150 gpd/1,000sf	11,051	12.38
Totals				88,009	98.58
Net Water Demand (Less 30.72 AFY for Existing Uses)					67.86
^a For conservative water resources planning purposes residential living units were assumed to be 2 bedroom units with associated water demand of 195 gpd/du. ^b Landscaping water demand is based on estimated annual average daily water demand. ^c Existing structure and land use to be retained and continue operation in the existing condition du: dwelling units; sf: square feet; gpd: gallons per day; gpy: gallons per year; afy: acre-feet per year; N/A: not applicable Source: ESA 2022.					

An annual water demand of 68 afy represents 0.22 percent of the City's anticipated total system supply of 31,078 afy in 2025, 0.22 percent of the supply of 31,537 afy in 2040, and 0.22 percent of the supply of 31,409 afy in 2045. The water demand for this scenario is approximately 8 afy lower than for the Project. Additionally, PWP staff reviewed the WSA for the Project and concluded that the WSA meets the requirements of SB 610 and SB 221 and concurs that PWP would have sufficient water supplies to meet existing demands combined with the Project with Building A Residential/Commercial's estimated demands of 68 afy and cumulative demands anticipated in the 2020 UWMP (PWP 2022). Therefore, as with the Project, there would be sufficient water supplies available to serve the Project with Building A Residential/Commercial and reasonably foreseeable future development during normal, dry, and multiple dry years. There would be a less than significant impact related to water supplies, and no mitigation is required.

Threshold 3.11d: Would the Project 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?

Project

Demolition required to construct the Project is estimated to generate approximate 4,200 cy of debris. In addition, there would be a limited volume of general construction debris during subsequent construction phases, such as packaging, excess construction materials, and food

wrappers. For purposes of this analysis, a conservative estimate of 4,500 cy of construction waste is anticipated. As discussed above, the City's C&D ordinance requires diversion of at least 75 percent of the construction waste stream from landfill disposal. Therefore, an estimated 1,125 cy of waste would be disposed in a landfill. For purposes of this analysis, it is assumed that all construction-phase waste would be disposed at Scholl Canyon Landfill, as it received the majority of the City's total waste stream in 2019 (the most recent publicly available data) and is the closest facility that accepts City waste. As of the end of 2019, the Scholl Canyon Landfill has a maximum daily capacity of 3,400 tons and a remaining permitted capacity of approximately 6.5 million cubic yards (3.8 million tons) (LACPW 2020). The one-time disposal of approximately 1,125 cy would represent approximately 0.07 percent of Scholl Canyon Landfill's remaining permitted capacity.

With implementation of the Project, based on the 2019 disposal rate of 9.2 PPD per capita (CalRecycle 2021b), up to 109 residents in the independent living units and up to 113 persons cared for in the assisted living facilities³ would generate approximately 2,042 PPD of solid waste, or approximately 373 tons per year.⁴ Based on the 2019 disposal rate of 13.4 PPD per employee, the estimated 737 employees would generate approximately 9,876 PPD of solid waste, or approximately 1,802 tons per year.⁵ As such, the Project would generate a total of approximately 2,175 tons per year (approximately 5.96 tons per day) of solid waste requiring disposal after diversion.

Solid waste would be collected by a private hauler and may be transported to any landfill in the State with capacity that can accept the municipal waste. The primary location that accepts City waste is Scholl Canyon Landfill, with approximately 74 percent of all waste generated after diversion going to this facility. Based on Scholl Canyon Landfill's remaining permitted capacity of approximately 6.5 million cubic yards (3.8 million tons) (LACPW 2020), the Project's annual solid waste disposal of 2,175 tons would represent approximately 0.06 percent of Scholl Canyon Landfill's remaining permitted capacity. However, as in the existing conditions, waste from the City of Pasadena may be disposed of after diversion at any facility that accepts waste from the City, both within and outside the County of Los Angeles as well as out of State. For instance, in 2019, City-generated waste was disposed at a total of 16 different facilities (CalRecycle 2021a).

Because there is adequate remaining capacity to accommodate the estimated construction and annual operational solid waste to be generated by the Project, there would be a less than significant impact related to landfill capacity. Further, the Project is in a developed urban area and within the City's existing refuse collection area. As such, the Project would not result in the need for new or substantially altered systems of solid waste collection and disposal. There would be a less than significant, and no mitigation is required. Attainment of solid waste reduction goals is addressed in Threshold 3.11e below.

Project with Building A Residential/Commercial

As discussed for the Project, demolition and construction of the Project with Building A Residential/Commercial is estimated to generate approximate 4,500 cy of debris. After diversion of at least 75 percent of the construction waste stream consistent with the City's C&D ordinance, an estimated 1,125 cy of waste would be disposed in a landfill. As discussed for the Project, this waste is assumed to be disposed in Scholl Canyon Landfill and this finite amount of waste would represent approximately 0.07 percent of Scholl Canyon Landfill's remaining permitted capacity (LACPW 2020).

³ The per capita resident generation rate is applied to these persons as a conservative analysis

⁴ $(2,042 \text{ PPD} * 365 \text{ days}) / 2,000 \text{ pounds per ton} = 373 \text{ tons per year}$

⁵ $(9,876 \text{ PPD} * 365 \text{ days}) / 2,000 \text{ pounds per ton} = 1,802 \text{ tons per year}$

With implementation of the Project with Building A Residential/Commercial, based on the 2019 disposal rate of 9.2 PPD per capita (CalRecycle 2021b), up to 493 residents in Building A, up to 109 residents in the independent living units, and 113 persons cared for in the assisted living facilities in Building B would generate approximately 6,578 PPD of solid waste, or approximately 1,201 tons per year.⁶ Based on the 2019 disposal rate of 13.4 PPD per employee, the estimated 95 employees would generate approximately 1,273 PPD of solid waste; or approximately 232 tons per year.⁷ As such, the Project with Building A Residential/Commercial would generate a total of approximately 1,433 tons per year (approximately 3.9 tons per day) of solid waste requiring disposal after diversion. This is slightly less daily solid waste generation than the Project and would represent approximately 0.04 percent of Scholl Canyon Landfill's remaining permitted capacity (LACPW 2020). Therefore, as with the Project, because waste from the City of Pasadena may be disposed of after diversion at any facility that accepts waste from the City and there is adequate remaining capacity to accommodate the estimated solid waste to be generated by the Project with Building A Residential Commercial, there would be a less than significant impact related to landfill capacity. Attainment of solid waste reduction goals is addressed in Threshold 3.11e below.

Threshold 3.11e: Would the Project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Project

In 1992, the City adopted the "Source Reduction and Recycling Element" to comply with the California Integrated Waste Management Act. This act requires that jurisdictions maintain a 50 percent or better diversion rate for solid waste. The City implements this requirement through Section 8.61 of the PMC, which establishes the City's "Solid Waste Collection Franchise System". As described in Section 8.61.175, each franchisee is responsible for meeting the minimum recycling diversion rate of 75 percent for construction and demolition debris and 60 percent for other solid waste on a monthly and annual basis. The Project would be required to comply with the applicable solid waste franchise's recycling system and would therefore meet local and State solid waste diversion regulations. In addition, the Project would be required to comply with the City's Construction and Demolition Ordinance (Section 8.62 of the PMC), which includes preparation of a Construction Waste Management Plan for new structures over 1,000 sf. As such, the Project would comply with federal, State, and local regulations related to solid waste. There would be a less than significant impact, and no mitigation would be required.

Project with Building A Residential/Commercial

As discussed for the Project, the Project with Building A Residential/Commercial would be required to comply with the applicable solid waste franchise's recycling system and would therefore meet local and State solid waste diversion regulations. In addition, the Project would be required to comply with the City's Construction and Demolition Ordinance (Section 8.62 of the PMC), which includes preparation of a Construction Waste Management Plan for new structures over 1,000 sf. As such, the Project with Building A Residential/Commercial would comply with federal, State, and local regulations related to solid waste. There would be a less than significant impact, and no mitigation would be required.

⁶ (6,578 PPD * 365 days)/2,000 pounds per ton = 1,201 tons per year

⁷ (1,273 PPD * 365 days)/2,000 pounds per ton = 232 tons per year

3.11.6 CUMULATIVE IMPACTS

Project

Water

According to the requirements of Section 10910(c)(3) of the Water Code:

“The water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single-dry, and multiple-dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.”

As previously discussed, the Project would conservatively demand about 0.24 percent of the City's anticipated total system supply of 31,078 afy in 2025, 0.24 percent of the supply of 31,537 afy in 2040, and 0.24 percent of the supply of 31,409 afy in 2045 (ESA 2022). As the Project is consistent with the Project's land use designation in the General Plan as part of planned growth within the City's Central District, potential demand for the Project was considered as part of the PWP 2020 UWMP. Therefore, the WSA finds that MWD, as the wholesale potable water supplier has sufficient water supplies available to serve its member agencies, including PWP, now and over a 20-year planning horizon. In addition, PWP's groundwater, including its annual groundwater credits stored in the RB, are reliable in all water year types. With that understanding, the WSA concludes that PWP has sufficient water supplies in all water year types provided through MWD and supplemented with local groundwater to meet existing demands combined with the Project demands and cumulative demands through the 20-year planning horizon of the PWP 2020 UWMP. Therefore, the Project would not result in a cumulatively considerable impact related to water supplies, and no mitigation is required.

Wastewater

For wastewater conveyance and treatment services, the geographic area for consideration of cumulative impacts is the City of Pasadena (for locally owned sewer lines) and the LACSD service area (for regional facilities). The City manages its wastewater infrastructure through the Sewer Master Plan, prepared by the City's Department of Public Works and based on forecasts of wastewater flows with buildout of the General Plan. Individual development projects in the City would be required to remit the appropriate sewer facility charge consistent with Chapter 4.53 of the PMC, which ensures that new development pays its estimated cost for any capacity upgrades to the City sewer system.

Regarding LACSD facilities, as discussed above, the Project would represent a nominal incremental contribution to regional wastewater flows requiring conveyance to and treatment at the LACSD's WRPs. All future development projects in the LACSD's service area would be subject to the LACSD's Wastewater Ordinance, which includes the Connection Fee program. The Connection Fee program requires all new users of the LACSD's sewerage system, as well as existing users that significantly increase the quantity or strength of their wastewater discharge, to pay their fair share of the costs for providing additional conveyance, treatment, and disposal facilities. The LACSD uses the fees for the expansion and improvement of their facilities, as needed, to serve existing and anticipated developments. Also, as discussed in the Initial Study, the Project would be within the remaining development capacity of the General Plan for the Central District Specific Plan. Therefore, the Project would not result in a cumulatively considerable impact to wastewater conveyance or treatment facilities, and no mitigation is required.

Dry Utilities

Electricity and natural gas are provided on demand from CPUC-regulated utilities (i.e., PWP and The Gas Company) and telecommunications are provided from free-market providers (e.g., AT&T and Spectrum). The respective service areas for these utility providers, except for PWP, are large and all cover at least substantial portions of California. Because these utilities are provided on demand, including CPUC-regulated utilities, the expansion of services based on regional growth is part of each providers business strategy. Therefore, growth and development in the City is not expected to result in adverse impacts on dry utilities. The Project would not contribute to a cumulatively considerable impact related to the need for new or expanded dry utilities.

Solid Waste

Solid waste collection services are provided on demand by private haulers, and cumulative impacts on their services from future development in the City are not expected to result in adverse impacts on solid waste collection services. Available landfill capacity is expected to decrease over time with future growth and development in the City. Waste reduction and recycling programs and regulations are expected to reduce this demand and extend the life of existing landfills. Also, CalRecycle is responsible for administering and monitoring State solid waste reduction initiatives, and individual jurisdiction's ability to meet these requirements. It is assumed that CalRecycle's role would continue in the future. Based on the available capacity of landfills in the region and the Project's nominal contribution of additional solid waste requiring disposal—approximately 0.06 percent of Scholl Canyon Landfill's remaining daily permitted capacity, as a conservative analysis—the Project would not contribute to a cumulatively considerable impact to landfill capacity or solid waste regulations.

Project with Building A Residential

Water

The cumulative impact analysis of water supply for the Project with Building A Residential/Commercial would be the same as that provided for the Project. If the Project with Building A Residential/Commercial is pursued, this development scenario would conservatively demand about 0.22 percent of the City's anticipated total system supply of 31,078 afy in 2025, 0.22 percent of the supply of 31,537 afy in 2040, and 0.22 percent of the supply of 31,409 afy in 2045 (ESA 2022). While the Project with Building A Residential/Commercial would result in slightly less water demand, this would not result in a difference in the cumulative impact finding for this scenario. Therefore, the Project with Building A Residential/Commercial would not result in a cumulatively considerable impact related to water supplies, and no mitigation is required.

Wastewater

The cumulative impact analysis of wastewater conveyance and treatment for the Project with Building A Residential/Commercial would be the same that provided for the Project.

Dry Utilities

The cumulative impact analysis of dry utilities for the Project with Building A Residential/Commercial would be the same as that provided for the Project.

Solid Waste

The cumulative impact analysis of dry utilities for the Project with Building A Residential/Commercial would be the same as that provided for the Project. While the Project

with Building A Residential/Commercial would result in slightly less solid waste generation, this would not result in a difference in the cumulative impact finding for this scenario.

3.11.7 MITIGATION MEASURES

No significant impacts related to utilities and service systems would occur, and no mitigation is required.

3.11.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant.

3.11.9 SUMMARY OF ANALYSIS

Project

The Project would result in less than significant impacts related to the relocation or construction of new or expanded water, wastewater conveyance and treatment, electric power, natural gas, or telecommunications facilities that could cause significant environmental effects, and no mitigation would be required. There would be a less than significant impacts related to water supplies, landfill capacity, and compliance with solid waste regulations.

Project with Building A Residential/Commercial

The summary of findings for the Project with Building A Residential/Commercial would be comparable to the findings for the Project. The only difference is that this scenario would result in a lower water demand and not generate as much solid waste as the Project. Similar to the Project, the Project with Building A Residential/Commercial would result in less than significant impacts related to utilities and service systems, and no mitigation is required.

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SECTION 4.0 ALTERNATIVES

4.1 INTRODUCTION

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines addresses the discussion of alternatives in an EIR. Key provisions of the State CEQA Guidelines are identified throughout this section to explain the basis for the alternatives evaluation in this Draft EIR. Section 15126.6 of the State CEQA Guidelines states the following:

- (a) Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The Lead Agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.
- (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.

4.1.1 CRITERIA FOR SELECTING ALTERNATIVES

Feasibility

When developing alternatives for evaluation in an EIR, the feasibility of implementing the alternative must be considered. Section 15126.6(f)(1) of the State CEQA Guidelines states the following:

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

It has been recognized that, for purposes of CEQA, “feasibility” encompasses “desirability” to the extent that the latter is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors. This balancing is harmonized with CEQA’s fundamental recognition that policy considerations may render alternatives impractical or undesirable.

Avoid or Substantially Lessen Significant Impacts

Section 15126.6(b) of the State CEQA Guidelines states that “[b]ecause an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public

Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly”.

The Project and Project with Building A Residential/Commercial, evaluated in Sections 3.1 through 3.11 of this Draft EIR, would result in a range of impacts but no significant and unavoidable impacts are expected after mitigation. Although the level of significance after mitigation (if any) may be the same for each threshold and/or environmental topic, the degree or severity of impact may be slightly different under each alternative and reduced or increased compared to the Project and Project with Building A Residential/Commercial.

The potentially significant adverse environmental impacts of the Project and Project with Building A Residential/Commercial, which require mitigation, include:

- **Cultural Resources** (historic resources [501 and 523 South Arroyo Parkway] and unknown archaeological resources),
- **Noise** (potential for vibration-related building damage to Whole Foods Market and 501 and 523 South Arroyo Parkway), and
- **Tribal Cultural Resources** (unknown tribal cultural resources).

Please refer to the Executive Summary and Sections 3.1 through 3.11 of this Draft EIR for additional details regarding the environmental analysis of the Project.

Ability to Achieve Project Objectives

The ability of an alternative to meet most of a project’s objectives is an important component when evaluating alternatives. Section 15126.6(f) of the State CEQA Guidelines states the following:

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

Section 15124 of the State CEQA Guidelines requires an EIR to include a statement of a proposed project’s objectives. The Affinity Project seeks to achieve the following key objectives:

1. Reinforce and strengthen Arroyo Parkway as a major commercial corridor and the Central District’s economic vitality through the development of multi-story buildings with a variety of complementary commercial and/or residential uses in underutilized areas with higher development capacity.
2. Provide jobs, services, revenues, and opportunities that will support Pasadena as an economically vital city and allow for continued fiscal health.
3. Develop assisted living facilities that have access to local commercial services, health care facilities, community facilities, and public transit.
4. Satisfy local and regional demand for varying levels of care (independent living, residential care, continuing care) to individuals, depending on need, that are transit-accessible and pedestrian-friendly.

5. Improve Pasadena's infrastructure and urban form through modernized buildings that are energy- and water-efficient.
6. Preserve and integrate Pasadena's historic resources as part of a complementary development that reduces the risk of resource demolition, deterioration by neglect, and/or impacts from natural circumstances.
7. Invest sustainably by providing for the needs of existing and future residents and businesses while in proximity to transportation opportunities.

4.1.2 ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with Section 15126.6(a) of the State CEQA Guidelines, this section summarizes the range of alternatives considered in the EIR. The following alternatives have been considered and eliminated from detailed consideration for the reasons identified in Section 4.2, below:

- Alternative Site, and
- Project with No Variance for Historic Resources.

Alternatives that are considered in detail in this Draft EIR include:

- Alternative 1: No Project/No Development,
- Alternative 2: Project Development with Existing Zoning,
- Alternative 3: All Residential Project with Variance for Historic Resources, and
- Alternative 4: All Medical Office Project with Variance for Historic Resources.

Table 4-1, Summary of Alternatives, presents the proposed land uses, amount of development (aboveground square feet [sf]), the maximum height above ground level, total parking spaces and subterranean levels required, and the floor area ratio (FAR) for the Project and Project with Building A Residential/Commercial and Alternatives 2 through 4 (i.e., the "build" alternatives).

The alternatives in Table 4-1 include 79,553 sf of commercial land uses associated with Whole Foods Market and 501 and 523 South Arroyo Parkway. It is assumed these existing land uses would operate as a grocery store and restaurants, respectively, same as the Project. As with the Project, the 275-space subterranean parking structure used by Whole Foods Market would remain and would not be connected to any new subterranean parking for all alternatives. The parking numbers listed in Table 4-1 refer only to new subterranean parking provided for the new development. Alternatives 3 and 4 are assumed to require a PD Plan, like the Project and Project with Building A Residential/Commercial. A complete description of each alternative is provided further below.

**TABLE 4-1
SUMMARY OF ALTERNATIVES**

	Land Uses	Total SF^a	Max DU	Max Height^b	New Parking^c	FAR
Project Scenarios						
Project	Assisted Living, Medical Office, Commercial	417,929	95	93.5 ft	850 spaces/ 5 levels	2.89
Project with Building A Residential/Commercial	Assisted Living, Residential, Commercial	417,929	289	93.5 ft	650 spaces/ 4 levels	2.89
Alternatives						
Alternative 2–Project Development with Existing Zoning	Assisted Living, Medical Office, Commercial	217,280	159	50 ft ^d	387 spaces/ 3 levels	1.50
Alternative 3–All Residential Project with Variance for Historic Resources	Residential, Commercial	417,929	289	93.5 ft	607 spaces/ 4 levels	2.89
Alternative 4–All Medical Office Project with Variance for Historic Resources	Medical Office, Commercial	417,929	0	93.5 ft	1,218 spaces/ 7 levels	2.89
SF: square feet; DU: dwelling units; Max: maximum; ft: feet; FAR: floor area ratio						
^a Refers to total aboveground development including 79,553 sf of existing, on-site development to be retained (465, 501, and 523 S. Arroyo Parkway)						
^a Refers to highest point, including parapet but not including appurtenances, of any proposed building on the site						
^c Refers to subterranean parking structure levels						
^d Or 65 feet with height averaging						

4.2 ALTERNATIVES ELIMINATED FROM DETAILED CONSIDERATION

Section 15126.6(c) of the CEQA Guidelines specifies that an EIR should (1) identify alternatives that were considered by the lead agency but were eliminated from detailed consideration because they were determined to be infeasible during the scoping process and (2) briefly explain the reasons underlying the lead agency’s determination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are (1) failure to meet most of the basic project objectives; (2) infeasibility; or (3) inability to avoid significant environmental impacts.

4.2.1 ALTERNATIVE SITE

Section 15126.6(f)(2) of the State CEQA Guidelines sets forth the following criteria for determining whether to identify an alternative site because “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative”. Section 15126.6(f)(2) of the State CEQA Guidelines (14 CCR) states the following:

- (A) Key question. The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- (B) None feasible. If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in proximity to natural resources at a given location.

- (C) Limited new analysis required. Where a previous document has sufficiently analyzed a range of reasonable alternative locations and environmental impacts for projects with the same basic purpose, the lead agency should review the previous document. The EIR may rely on the previous document to help it assess the feasibility of potential project alternatives to the extent the circumstances remain substantially the same as they relate to the alternative.

Development of the Project or Project with Building A Residential/Commercial on an alternative site was not carried forward for detailed consideration due to the lack of available alternate sites to accommodate a project of similar size, and inability to meet many of the objectives established for the Project.

The Project site is a 3.3-acre property that is presently owned by the Applicant. There are no vacant or underutilized sites of sufficient size along Arroyo Parkway and within walking distance of multiple transit facilities, both relevant to the Project objectives, that could feasibly accommodate the Project. Additionally, the Applicant does not own other feasible alternative sites and the City is not aware of any other feasible alternative location that would avoid or substantially lessen any potential significant impact of the Project. Further, the Applicant cannot be expected nor required to acquire, control, or have access to another site that could accommodate the Project. As noted above, the Project or Project with Building A Residential/Commercial would result in no significant and unavoidable impacts. Therefore, due to lack of viable and comparable sites in the site vicinity that would allow for development of the Project in a manner that would avoid or substantially lessen the Project's significant impacts (before mitigation), development of the Project on an alternative site has been eliminated from consideration.

4.2.2 PROJECT WITH NO VARIANCE FOR HISTORIC RESOURCES

Based on comments received on the Notice of Preparation (NOP), an alternative PD project without a variance for historic resources to increase the height of Buildings A and B was considered. This alternative would result in a total of 401,171 sf of aboveground development, including the 73,671-sf Whole Foods Market. To accommodate a project of this size, this alternative would involve demolition of 8 (of the 9) existing buildings, including the two historic buildings, totaling 51,794 sf, located at 491, 495, 499, 501, 503, 523, 541, and 577 South Arroyo Parkway, and construction of 327,500 sf of new development in 2 buildings representing a floor area ratio (FAR) of 2.77. These buildings would have up to 5 stories and maximum heights, including parapets, of 65 feet (with height averaging). This alternative would have up to 709 parking spaces in 5 subterranean levels.

As discussed above, there are no significant and unavoidable impacts associated with the Project or Project with Building A Residential/Commercial. Furthermore, the significant impacts that require mitigation to avoid or reduce to a less than significant level are all construction related. This alternative would result in a new significant impact due to demolition of two historic buildings that would be considered significant and unavoidable. The introduction of a significant and unavoidable impact due to an alternative, when there are no such impacts associated with either the Project or the Project with Building A Residential/Commercial, resulted in the elimination of this alternative from detailed consideration by the City.

4.3 ALTERNATIVES CARRIED FORWARD FOR DETAILED CONSIDERATION

The analysis of each of the Project alternatives identified below includes the following:

- A description of the alternative.
- An analysis of environmental impacts in comparison to the possible impacts of the Project and Project with Building A Residential/Commercial. Pursuant to the State CEQA Guidelines, if an alternative would cause one or more significant effects in addition to those that would be caused by the Project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the Project as proposed.
- An assessment of the alternative's ability to meet the Project objectives.

The comparison of impacts between each alternative and the proposed Project assumes that the general nature and types of (1) existing regulations and (2) mitigation measures (MMs) identified in Section 3.0, Environmental Analysis, of this Draft EIR would also be applicable to each of the alternatives, where appropriate. No MMs are applied to the No Project/No Development Alternative, which assumes that the existing conditions on the Project site would remain unchanged.

4.3.1 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT

Description of the Alternative

Section 15126.6(e) of the State CEQA Guidelines requires that an EIR evaluate a "no project" alternative in order to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving that project. Section 15126.6(e)(3) of the State CEQA Guidelines describes the two general types of no project alternative: (1) when the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the no project alternative would be the continuation of that plan and (2) when the project is not a land use/regulatory plan, such as a specific development on an identifiable property, the no project alternative is the circumstance under which that project is not processed (i.e., no development occurs). In addition, Section 15126.6(e)(2) of the State CEQA Guidelines specifies that the "No Project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services".

Under the No Project/No Development Alternative, the existing environmental setting would remain unchanged. The City would not approve a PD Plan and rezone the site to a PD zone nor would the City approve the Project or Project with Building A Residential/Commercial. This Alternative assumes the Project site would continue to remain in its existing state without demolition of any existing structures and site improvements and would continue the use and operation of the existing land uses present at the time the NOP was distributed in August 2021.

Comparative Analysis of Environmental Impacts

Air Quality

Alternative 1 would not involve any construction activities (including demolition, excavation, and building construction) or operation of a greater amount of development on the site. In the absence of construction activities and no increase in traffic generation, this alternative would not generate criteria air pollutant emissions beyond existing conditions. Although the air quality related impacts

of the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to air quality would be comparatively less.

Cultural and Paleontological Resources

Alternative 1 would not result in the adaptive reuse of the historic buildings (501 and 523 South Arroyo Parkway) that would be integrated in the Project and Project with Building A Residential/Commercial. Therefore, the potential significant impact related to alterations to these buildings associated with integration into the Project and occupation by new tenants, requiring implementation of MM CUL-1, would not occur.

In the absence of any construction activities, Alternative 1 would not result in the potential for impacts to unknown historic (buried), archaeological, or paleontological resources that may be encountered during grading activities. As such, the potential for impacts to cultural resources resulting from implementation of the Project or Project with Building A Residential/Commercial would not occur under Alternative 1 and implementation of MM CUL-2 would not be required. Although impacts related to historic and archaeological resources with the Project and Project with Building A Residential/Commercial are less than significant with mitigation, the impacts of Alternative 1 related to cultural and paleontological resources would be comparatively less without mitigation.

Energy

Alternative 1 would not involve any construction activities or operation of a greater amount of development on the site. In the absence of construction activities, no increase in on-site land use and related activity, and no increase in traffic generation, this alternative would not result in any change in energy use. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to energy would be comparatively less.

Greenhouse Gas Emissions

Alternative 1 would not involve any construction activities or operation of a greater amount of development on the site. In the absence of construction activities and no increase in traffic generation, this alternative would not generate greenhouse gas (GHG) emissions beyond existing conditions. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to GHG emissions would be comparatively less.

Hazards and Hazardous Materials

Alternative 1 would not involve the use, transport, disposal, or emission of hazardous materials associated with the proposed Project. However, continued use of common hazardous materials related to the existing land uses on the site (e.g., cleaning supplies, paints, solvents) would occur. All transport, use, and disposal of hazardous materials under this alternative would continue to be conducted in compliance with applicable regulations and would not result in significant impacts.

In the absence of construction activities, Alternative 1 would not have the potential to expose construction personnel or other individuals to asbestos-containing materials (ACMs) or lead-based paint (LBP) that could potentially occur with the Project or Project with Building A Residential/Commercial associated with the demolition activities. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to hazards and hazardous materials would be comparatively less.

Land Use and Planning

Under Alternative 1, there would be no change in the existing conditions on the Project site and no change in zoning from CD-6 to PD-39. Alternative 1 would not involve any new development and would not conflict with any local or regional planning programs; however, development on the site permissible on the site under existing zoning would also not be implemented and would leave the site in its current underutilized condition, thereby failing to reinforce and strengthen Arroyo Parkway as a major commercial corridor. While the impacts with the Project and Project with Building A Residential/Commercial related to land use and planning are less than significant, it is acknowledged that some may prefer to have the site remain in its existing land use configuration. However, Alternative 1 would not support regional and local planning policies related to reducing vehicle trips per capita by increasing density, including housing, near transit. Nor would the existing condition, even if fully occupied by commercial uses, provide as many jobs near transit as the Project or Project with Building A Residential/Commercial. Therefore, while Alternative 1 would avoid any physical land use changes, the Project's land use benefits would not be achieved.

Noise

Alternative 1 would not involve any construction activities or operation of a greater amount of development on the site. In the absence of construction activities, Alternative 1 would not result in construction noise or vibration. Therefore, the potential significant impact related to vibration affecting the on-site buildings to be retained, requiring implementation of MM NOI-1, would not occur.

Although the increase in vehicle trips would not result in a perceptible change in noise levels, there would not be a change in operational noise under Alternative 1. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant with mitigation, the impacts of Alternative 1 related to noise and vibration would be comparatively less without mitigation.

Public Services and Recreation

Under Alternative 1, there would be no increase in the amount of development on the site. Therefore, the impact of Alternative 1 relative to the demand for public services and recreation would be less than the Project or Project with Building A Residential/Commercial. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to public services and recreation would be comparatively less.

Transportation

In the absence of construction activities, Alternative 1 would not result in construction-related traffic. Also, under Alternative 1, there would no increase in vehicle trips associated with new land uses. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to transportation—including circulation system policies, the City's Transportation Impact Analysis (TIA) Guidelines, traffic safety, and emergency access—would be comparatively less. At the same time, the vehicles miles traveled (VMT) per capita would be higher under Alternative 1 than the Project or Project with Building A Residential/Commercial, because of the lower service population present on the site that drives the vehicle trips.

Tribal Cultural Resources

In the absence of any construction activities, Alternative 1 would not result in the potential for impacts to unknown tribal cultural resources that may be encountered during excavation activities. As such, the potential for impacts to tribal cultural resources resulting from implementation of the Project or Project with Building A Residential/Commercial would not occur under Alternative 1, and implementation of MM TCR-1 would not be required. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant with mitigation, the impacts of Alternative 1 related to tribal cultural resources would be comparatively less without mitigation.

Utilities and Service Systems

Under Alternative 1, there would be no increase in the amount of development on the site. Therefore, the impact of Alternative 1 relative to the demand for utilities and service systems would be less than the Project or Project with Building A Residential/Commercial. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 1 related to utilities and service systems would be comparatively less.

Ability to Meet Project Objectives

Alternative 1 would not attain Project objectives 1 through 7.

Conclusion

Alternative 1 would avoid all potential impacts from the Project or Project with Building A Residential/Commercial, which are less than significant for each environmental topic addressed in this Draft EIR with adherence to applicable regulations and mitigation. However, in the absence of the Project or Project Building A Residential/Commercial, no land use benefits would be achieved.

4.3.2 ALTERNATIVE 2: PROJECT DEVELOPMENT WITH EXISTING ZONING

Description of the Alternative

Alternative 2 assumes the site is developed with the same land uses as the Project or Project with Building A Residential/Commercial but with application of existing zoning (i.e., no PD Plan). The site is zoned CD-6 (Central District, Arroyo Corridor/Fair Oaks subdistrict). Alternative 2 is analyzed with two scenarios, where appropriate based on the results of the comparative analysis, same as the Project. As shown in Table 4-1 above, Alternative 2 would result in a total of 217,280 sf of aboveground development, including the 79,553 sf of existing development to be retained (i.e., Whole Foods Market and the historic buildings at 501 and 523 South Arroyo Parkway). This amount of total aboveground development reflects the 1.5 FAR consistent with CD-6 zoning.

This alternative would involve demolition of 6 (of the 9) existing buildings totaling 45,912 sf, located at 491, 495, 499, 503, 541, and 577 South Arroyo Parkway, and construction of 2 new buildings with 137,727 sf of new development. Based on the same proportions of proposed land uses with the Project and Project with Building A Residential, Alternative 2 would result in the following:

- Building A: a 62,682-sf, 5-story (aboveground) medical office building with 3,000 sf ground-floor commercial uses;

- Building B: a 75,045-sf, 5-story (aboveground) assisted living building with 34,922 sf of assisted living uses and 40,123 sf of independent living uses including up to 51¹ senior housing units; and
- Up to 387 parking spaces in 3 subterranean levels.²

Alternative 2 would represent an approximately 59 percent reduction in the total new development on the site (i.e., when considering only Building A and Building B) and an approximate 48 percent reduction in overall development on the site (i.e., when including Whole Foods Market and 501 and 523 South Arroyo Parkway) compared to the Project and Project with Building A Residential/Commercial.

Like the Project with Building A Residential/Commercial, Alternative 2 could result in the following in Building A (referred to herein as Alternative 2 with Building A Residential/Commercial):

- 3,000 sf of commercial and a sales/leasing management office on the ground floor;
- Up to 108 residential dwelling units³; and
- Up to 282 parking spaces in 2 subterranean levels (1 fewer levels than Alternative 2 as proposed above)².

Regarding senior living and market-rate housing units, Alternative 2 would represent an approximately 45 percent reduction in the maximum number of units allowed consistent with CD-6 zoning (i.e., 48 DUs/acre) compared to the Project and Project with Building A Residential/Commercial.

Alternative 2 would have maximum building heights, including parapets, of 50 feet or 65 feet with height averaging. This alternative assumes the historic resources would be retained and incorporated into the design, but with no variance proposed. Alternative 2 assumes the retained historic buildings would operate as restaurants, same as the Project. Because the same building footprints are assumed under Alternative 2 as the Project, the same number and locations of trees would be removed, and the planting of two new street trees would be required. The points of ingress/egress and on-site circulation would be the same as the Project.

Alternative 2 would involve the same construction phases and overall schedule as the Project, with construction beginning in 2023 over approximately 34 months. While the overall scope of this alternative is reduced compared to the Project, it would remain a substantial building effort. Because there would be fewer levels of subterranean parking, based on a proportional reduction in grading per level for the Project, this alternative would involve the following volumes of excavation and export:

- Alternative 2: approximately 110,406 cy of soil generating an estimated 7,886 one-way truck trips over the course of 4 months (103 workdays); and

¹ Based on the same proportion of housing units with implementation of the Project with Building A Residential/Commercial (68 percent market rate residential and 32 percent senior living units) to the max dwelling units that would be permitted with 48 du/ac (159). In other words, $159 * 0.68 = 108$ residential units; $159 - 108 = 51$ senior units.

² Based on off-street parking requirements specified in Chapter 17.46 of the PMC. For building B assisted living where parking is determined through the entitlement process, the allocation is based on the same proportion of parking spaces with implementation of the Project and Project with Building A Residential/Commercial.

³ Based on the same proportion of housing units with implementation of the Project with Building A Residential/Commercial (68 percent market rate residential and 32 percent senior living units) to the max dwelling units that would be permitted with 48 du/ac (159). In other words, $159 * 0.68 = 108$ residential units; $159 - 108 = 51$ senior units.

- Alternative 2 with Building A Residential/Commercial: approximately 73,604 cy of soil, generating an estimated 5,257 one-way truck trips over the course of 4 months (103 workdays).

Comparative Analysis of Environmental Impacts

Air Quality

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in a reduced scope of construction activities, although demolition activities would be the same, and a reduced scope of operational activities that would generate stationary criteria air pollutant emissions. As shown in Table 4-2, Alternative 2 Transportation Analysis Comparison, below under “transportation”, this Alternative would result in a reduced number of daily vehicle trips (VT) and reduced vehicle miles traveled (VMT) per capita, compared to both the Project and the Project with Building A Residential/Commercial. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to air quality would be comparatively less for the Project and the Project with Building A Residential/Commercial.

Cultural and Paleontological Resources

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in similar impacts to cultural and paleontological resources as the Project and Project with Building A Residential/Commercial. This alternative would also integrate the historic buildings (501 and 523 South Arroyo Parkway). Therefore, this Alternative would result in the potential significant impact related to alterations to these buildings associated with integration into the Project and occupation by new tenants, requiring implementation of MM CUL-1. This Alternative would result in less excavation than the Project and Project with Building A Residential/Commercial commensurate with the reduction in subterranean parking levels; however, the potential for impacts to unknown historic (buried) and archaeological resources is associated with any excavation in both disturbed and native soils. Therefore, like the Project and Project with Building A Residential/Commercial, this Alternative would result less than significant impacts with implementation of MM CUL-2, and less than significant impacts related to paleontological resources.

Energy

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in less construction-related energy use and long-term mobile (i.e., vehicle) and stationary (i.e., not transportation/mobile) energy demand than the Project and Project with Building A Residential/Commercial. However, when taking into consideration that this Alternative would result in the same amount of demolition to redevelop an underutilized site and the resulting development would be approximately half as dense as the Project, energy use during construction would be less efficient than for the Project or Project with Building A Residential/Commercial. As discussed above, this Alternative would result in a reduced VT and VMT compared to the Project and Project with Building A Residential/Commercial. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to energy use would be comparatively less for the Project and the Project with Building A Residential/Commercial. Nonetheless, on balance, it is anticipated that this Alternative would also result in less than significant impacts related to the wasteful, inefficient, or unnecessary consumption of energy; and less than significant impacts related to conflict with plans for renewable energy or energy efficiency. Like the Project and Project with Building A Residential/Commercial, this Alternative would result less than significant impacts related to energy.

Greenhouse Gas Emissions

Alternative 2 and Alternative 2 with Building A Residential/Commercial would generate reduced GHG emissions from construction and operation of the reduced development intensity compared to the Project and Project with Building A Residential/Commercial. However, this alternative would result in reduced VT and VMT per capita than the Project and Project with Building A Residential/Commercial. A lower VMT reflects a lesser relative contribution of the site per capita and per service population to GHG emissions. As this Alternative is based on the existing zoning for the site, development of this alternative would also be considered consistent with the City's Climate Action Plan (CAP). Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to GHG emissions would be comparatively less.

Hazards and Hazardous Materials

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in the same potential to expose construction personnel or other individuals to ACMs or lead-based paint LBP that could occur with the Project or Project with Building A Residential/Commercial, as this impact is associated with demolition activities. Construction of this alternative would result in the transport and handling of the same hazardous materials typical of construction activities and would also result in less than significant impacts through compliance with applicable regulations. Similarly, because this alternative proposes the same land uses as the Project or Project with Building A Residential/Commercial, operation of this Alternative would result in the use and generation of the same hazardous materials. As with the Project, all transport, use, and disposal of hazardous materials under this alternative, including biomedical waste, would be conducted in compliance with applicable regulations and would result in less than significant impacts. Like the Project and Project with Building A Residential/Commercial, this Alternative would result less than significant impacts related to hazards and hazardous materials.

Land Use and Planning

Under Alternative 2 and Alternative 2 with Building A Residential/Commercial, there would be no change in zoning on the site from CD-6 to PD-39 and the development would be consistent with the existing zoning and applicable goals and policies of the *City of Pasadena General Plan* (General Plan). However, as discussed in Section 3.6, Land Use and Planning, of this Draft EIR, adoption of a PD zone simultaneously establishes applicable land use regulations and development standards specific to that zoning district. Also, PD Plans are developed in consideration of existing zoning requirements that are applicable to a project site while also providing flexibility in site usage and building design. However, when taking into consideration that this Alternative would result in the same amount of demolition to redevelop an underutilized site and the resulting development would be approximately half as dense as the Project, this represents a less efficient use of the land than for the Project or Project with Building A Residential/Commercial.

Regarding land use plans, policies, or regulations adopted for the purpose of avoiding or reducing an environmental effect, for the City of Pasadena these are focused on historic resources, GHG emissions/sustainability, and trees/open space. This Alternative would result in the same potential impact on historic resources and require implementation of MM CUL-1, as discussed above, as the Project. Alternative 2 would be less consistent with Southern California Association of Government's (SCAG's) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), as the reduced amount of redevelopment on an underutilized site, particularly near transit, would result in a land use pattern that contributes less towards the GHG emissions reduction targets compared to the Project or Project with Building A Residential/Commercial. This alternative would provide less mixed-use development near transit

and other existing infrastructure (e.g., roads, utilities, services). As discussed above, this Alternative would result in a reduced VT and VMT per capita compared to the Project and Project with Building A Residential/Commercial. A lower VMT reflects a lesser relative contribution of the site per capita and per service population to GHG emissions. This Alternative would support regional and local planning policies related to reducing vehicle trips per capita by increasing density, including housing, near transit, although not to the same degree as the Project or Project with Building A Residential/Commercial. This Alternative would result in the same number of tree removals and the same requirement for planting of two new street trees as the Project or Project with Building A Residential/Commercial. Therefore, like the Project and Project with Building A Residential/Commercial, this Alternative would result in less than significant impacts related to land use and planning.

Noise

Alternative 2 and Alternative 2 with Building A Residential/Commercial would generate the same level of construction noise and vibration as the Project and Project with Building A Residential/Commercial and require implementation of MM NOI-1 to reduce potential vibration impacts to the remaining on-site buildings to a less than significant level. Although the increase in vehicle trips with the Project or Project with Building A Residential/Commercial would not result in a perceptible change in noise levels, this Alternative would generate less traffic. The noise generated from stationary uses from this alternative would be similar to the Project and Project with Building A Residential/Commercial and would also be less than significant. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant with mitigation, the impacts of this Alternative related to noise and vibration would be comparatively less due to the reduction in operational noise generation.

Public Services and Recreation

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in a reduced demand for public services (i.e., fire protection, police protection, schools, libraries) and recreational facilities than the Project and Project with Building A Residential/Commercial, commensurate with the reduction in development, including a reduction in resident population. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to public services and recreation would be comparatively less.

Transportation

The Pasadena Department of Transportation (DOT) calculated the transportation metrics for each of the “build” alternatives (i.e., all but the No Project Alternative), where some redevelopment would occur on the site. As shown in Table 4-2, Alternative 2 Transportation Analysis Comparison, this Alternative would result in a reduced VT and VMT per capita compared to the Project and the Project with Building A Residential/Commercial. The City’s transportation metrics related to bicycle and transit networks and pedestrian accessibility are similar to the Project, as this is related mainly—though not solely—on location rather than type of development.

**TABLE 4-2
ALTERNATIVE 2 TRANSPORTATION ANALYSIS COMPARISON**

Transportation Performance Metrics	Significant Impact Cap (Existing)	Incremental Change (Existing + Alternative 2/ Exchange Alternative 2)	Incremental Change (Existing + Project / Exchange Project)	Significant Impact for Alternative?
VMT Per Capita	>22.6	16.5 / 6.4	19.5 / 8.2	No
VT Per Capita	>2.8	1.8 / 1.2	2.0 / 1.4	No
Proximity and Quality of Bicycle Network	<31.7%	31.8% / 31.8%	32.0% / 32.0%	No
Proximity and Quality of Transit Network	<66.6%	66.7% / 66.7%	66.8% / 66.8%	No
Pedestrian Accessibility	<3.9	3.9 / 3.9	3.9 / 3.9	No
VMT: vehicle miles traveled; VT: vehicle trips Source: Pasadena DOT 2022a.				

Therefore, this Alternative would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines. This Alternative would result in less than significant impacts related to conflict with the City's TIA Guidelines. This Alternative would result in the same ground-level circulation pattern; therefore, like the Project and Project with Building A Residential/Commercial, this Alternative would result in less than significant impacts related to circulation system policies, traffic safety, and emergency access. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to transportation would be comparatively less.

Tribal Cultural Resources

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in similar impacts to tribal cultural resources as the Project and Project with Building A Residential/Commercial. This Alternative would result in less excavation than the Project and Project with Building A Residential/Commercial commensurate with the reduction in subterranean parking levels; however, the potential for impacts to unknown tribal cultural resources is associated with any excavation in both disturbed and native soils. Therefore, this Alternative would result in the same potential impact and require implementation of MM TCR-1 to reduce this impact to a less than significant level, same as the Project and Project with Building A Residential/Commercial.

Utilities and Service Systems

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in a reduced demand for utilities and service systems, including water supply, water and wastewater infrastructure, wastewater treatment, dry utilities (i.e., electricity, natural gas, telecommunications), and solid waste generation, commensurate with the reduced amount of redevelopment. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of this Alternative related to utilities and service systems would be comparatively less.

Ability to Meet Project Objectives

Alternative 2 and Alternative 2 with Building A Residential/Commercial would only partially meet Project objectives 1 through 7, as this Alternative would provide the same mix of land uses, with a potential exchange of residential for medical office; would retain and integrate the on-site historic structures; develop multi-story buildings with complementary uses in an underutilized area with transit and pedestrian accessibility; and provide jobs, services, revenues, and opportunities to support the City's fiscal health. However, as discussed above, this Alternative would provide approximately half the density and development as the Project or Project with Building A Residential/Commercial while resulting in the same amount of demolition to redevelop an underutilized site, which overall is an undesirable outcome. Additionally, as discussed above, because of the reduced density under this Alternative, especially on a transit-accessible site, this Alternative would be a less energy-efficient use of the site compared to the Project or Project with Building A Residential/Commercial.

Conclusion

Alternative 2 and Alternative 2 with Building A Residential/Commercial would result in comparatively reduced impacts related to air quality, GHG emissions, noise, public services, recreation, transportation, and utilities and service systems. This alternative would result in similar impacts related to cultural and paleontological resources, hazards and hazardous materials, land use and planning, and tribal cultural resources. Regarding energy, while this Alternative would result in a reduced VT and VMT compared to the Project and Project with Building A Residential/Commercial, it would also represent a less efficient use of the site. As discussed above, this Alternative would result in the same amount of demolition to redevelop an underutilized site and the resulting development would be approximately half as dense as the Project. Notably, this Alternative would not reduce any of the impacts identified for the Project or Project with Building A Residential/Commercial that would require mitigation during construction to reduce the impact to a less than significant level.

4.3.3 ALTERNATIVE 3: ALL RESIDENTIAL PROJECT WITH VARIANCE FOR HISTORIC RESOURCES

Description of the Alternative

Alternative 3 assumes the demolition of 6 (of the 9) existing buildings totaling 45,912 sf, construction of 2 new buildings totaling 338,376 sf, and 79,553 sf of existing development to be retained (i.e., Whole Foods Market and the historic buildings at 501 and 523 South Arroyo Parkway), same as the Project or Project with Building A Residential/Commercial. However, Alternative 3 assumes the new buildings would include up to 289 market-rate residential units (i.e., apartments and/or condominiums) except for ground-floor commercial in Building A.

As shown in Table 4-1 above, Alternative 3 would result in a total of 417,929 sf of aboveground development, including the existing buildings to be retained, as follows:

- Building A: a 154,000-sf, 7-story (aboveground) residential building and ground-floor commercial uses;
- Building B: a 184,376-sf, 7-story (aboveground) residential building; and
- Up to 607 parking spaces in 4 subterranean levels.

Alternative 3 would have maximum building heights, including parapets, of 93.5 feet, the same as the Project. This alternative assumes the historic resources would be retained and incorporated into the design with a variance for historic resources proposed. Alternative 3 assumes the retained

historic buildings would operate as restaurants, same as the Project. Because the same building footprints are assumed under Alternative 3 as the Project, the same number and locations of trees would be removed, and the planting of two new street trees would also be required as a planned condition of approval. The points of ingress/egress and on-site circulation would be the same as the Project.

Alternative 3 would involve the same construction phases and overall schedule as the Project, with construction beginning in 2023 over approximately 34 months. Because there would be one fewer level of subterranean parking, like the Project with Building A Residential/Commercial that has one less subterranean level than the Project, Alternative 3 would involve excavation and export of an estimated 147,211 cy of soil, generating an estimated 10,515 one-way truck trips, over the course of 4 months (103 workdays). This would equate to an average of 102 one-way trips per workday.

Comparative Analysis of Environmental Impacts

Air Quality

Alternative 3 would result in the same estimated construction-related criteria air pollutant emissions as the Project with Building A Residential/Commercial, as this alternative would involve the same amount of aboveground development and levels of subterranean parking. As shown in Table 4-3, Alternative 3 Transportation Analysis Comparison, below under “transportation”, this alternative would result in a reduced VT and VMT per capita compared to the Project and Project with Building A Residential/Commercial. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to air quality would be comparatively less.

Cultural and Paleontological Resources

Alternative 3 would result in the same potential impacts to cultural resources as the Project with Building A Residential/Commercial. This alternative would also integrate the historic buildings (501 and 523 South Arroyo Parkway). Therefore, Alternative 3 would result in the potential significant impact related to alterations to these buildings associated with integration into the Project and occupation by new tenants, requiring implementation of MM CUL-1. This alternative would have the same amount of excavation as the Project with Building A Residential/Commercial. Therefore, Alternative 3 would result in the same potential impact and require implementation of MM CUL-2 to reduce this impact to a less than significant level, same as the Project and Project with Building A Residential/Commercial. This Alternative would less than significant impacts related to paleontological resources, same as the Project with Building A Residential/Commercial.

Energy

Alternative 3 would result in the same construction-related energy use as the Project with Building A Residential/Commercial. As discussed above, this alternative would result in a reduction in both VT and VMT per capita compared to the Project and Project with Building A Residential/Commercial. As such, Alternative 3 would result in reduced long-term mobile (i.e., vehicle) energy demand; however, stationary (i.e., not transportation/mobile) energy demand would be similar to the Project and Project with Building A Residential/Commercial. Accordingly, it is expected that Alternative 3 would also result in less than significant impacts related to the wasteful, inefficient, or unnecessary consumption of energy or conflicts with plans for renewable energy or energy efficiency. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to energy would be comparatively less.

Greenhouse Gas Emissions

Alternative 3 would generate the same construction related GHG emissions as the Project with Building A Residential/Commercial, because Alternative 3 would have the same amount of excavation. As discussed above, this alternative would result in a reduction in both VT and VMT per capita compared to the Project and Project with Building A Residential/Commercial. Vehicle trips are a major driver of GHG emissions. As such, Alternative 3 would result in reduced long-term mobile (i.e., vehicle) GHG emissions. A lower VMT reflects a smaller relative contribution of the site per capita and per service population to GHG emissions. However, stationary (i.e., not transportation/mobile) GHG emissions would be similar to the Project and Project with Building A Residential/Commercial because there would be a similar amount of land uses. As Alternative 3 would have the same construction GHG emissions and reduced operational emissions, development of this Alternative would also be considered consistent with the City's Climate Action Plan (CAP). Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to GHG emissions would be comparatively less.

Hazards and Hazardous Materials

Alternative 3 would result in the same potential to expose construction personnel or other individuals to ACMs or lead-based paint LBP that could occur with the Project or Project with Building A Residential/Commercial, as this impact is associated with demolition activities. Construction of this alternative would result in the transport and handling of the same hazardous materials typical of construction activities and would also result in less than significant impacts through compliance with applicable regulations. Alternative 3 would not result in the generation of biomedical waste but would still use hazardous materials common to commercial uses, such as cleaners and solvents. As with the Project, all transport, use, and disposal of hazardous materials under this alternative would be conducted in compliance with applicable regulations and would result in less than significant impacts. Like the Project and Project with Building A Residential/Commercial, Alternative 3 would result in less than significant impacts related to hazards and hazardous materials.

Land Use and Planning

Under Alternative 3, there would be a change in zoning to a PD zone and adoption of a PD Plan. Also, a variance for historic resources would be requested to implement these land uses, the same as the Project and Project with Building A Residential/Commercial. Because a PD zone simultaneously establishes applicable land use regulations and development standards specific to that zoning district and is developed in consideration of existing zoning requirements, with approval of the zone change to a PD zone and approval of this alternative, including Design Review, Alternative 3 would be considered compatible with the City's zoning designations. However, as this alternative would provide only market-rate residential units (with a small amount of ground-floor) commercial uses, there would be less mixed-use development near transit and other existing infrastructure (e.g., roads, utilities, services) and no provision of senior care or housing facilities that are needed in the region. Nonetheless, Alternative 3 would support regional and local planning policies related to reducing vehicle trips per capita by increasing density, including housing, near transit.

Regarding land use plans, policies, or regulations adopted for the purpose of avoiding or reducing an environmental effect, for the City of Pasadena, these are focused on historic resources, GHG emissions/sustainability, and trees/open space. Alternative 3 would result in the same potential impact on historic resources and require implementation of MM CUL-1, similar to the Project. Alternative 3 would be consistent with SCAG's 2020-2045 RTP/SCS, as this alternative would place multi-family housing with some commercial uses in an underutilized site near transit,

thereby resulting in a land use pattern that contributes towards the GHG emissions reduction targets. Alternative 3 would result in the same number of tree removals and the same requirement for planting of two new street trees as the Project or Project with Building A Residential/Commercial. Therefore, like the Project and Project with Building A Residential/Commercial, Alternative 3 would result less than significant impacts related to land use and planning.

Noise

Alternative 3 would generate the same level of construction noise and vibration as the Project and Project with Building A Residential/Commercial and require implementation of MM NOI-1 to reduce potential vibration impacts to the remaining on-site buildings to a less than significant level. Like the Project or Project with Building A Residential/Commercial, although Alternative 3 would generate a higher volume of vehicle trips than the existing conditions, it would also not result in a perceptible change in noise levels. This is because it generally takes a doubling (or a halving) of traffic volumes to generate a change in noise levels that is perceptible to human hearing. The noise generated from stationary uses from this alternative would be similar to the Project and Project with Building A Residential/Commercial and would also be less than significant. Therefore, like the Project and Project with Building A Residential/Commercial, Alternative 3 would result less than significant impacts related to noise with implementation of MM NOI-1.

Public Services and Recreation

Alternative 3 would result in a similar demand for police protection, schools, libraries, and recreational facilities as the Project with Building A Residential/Commercial, because this alternative would result in the same amount of aboveground development and number of residential dwelling units (289). However, without the provision of assisted living facilities, it is expected this alternative would result in slightly less demand for Pasadena Fire Department (PFD) services than the Project or Project with Building A Residential/Commercial. This is because PFD services associated with more frequent ambulance calls related to the assisted living facility would be eliminated. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to public services and recreation would be comparatively less.

Transportation

Pasadena DOT calculated the transportation metrics for each alternative. As shown in Table 4-3, Alternative 3 Transportation Analysis Comparison, this alternative would result in reduced VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. The Alternative 3 metrics related to bicycle and transit networks and pedestrian accessibility are similar to the Project and Project with Building A Residential/Commercial. Alternative 3 would not result in any significant transportation impacts.

**TABLE 4-3
ALTERNATIVE 3 TRANSPORTATION ANALYSIS COMPARISON**

Transportation Performance Metrics	Significant Impact Cap (Existing)	Incremental Change (Existing + Alternative 3)	Incremental Change (Existing + Project / Exchange Project)	Significant Impact for Alternative?
VMT Per Capita	>22.6	4.6	19.5 / 8.2	No
VT Per Capita	>2.8	1.7	2.0 / 1.4	No
Proximity and Quality of Bicycle Network	<31.7%	31.8%	32.0% / 32.0%	No
Proximity and Quality of Transit Network	<66.6%	66.7%	66.8% / 66.8%	No
Pedestrian Accessibility	<3.9	3.9	3.9 / 3.9	No
VMT: vehicle miles traveled; VT: vehicle trips				
Source: Pasadena DOT 2022b.				

Therefore, Alternative 3 would not exceed any of the CEQA transportation thresholds defined in the City's TIA Guidelines. Although impacts with the Project or Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to the City's TIA Guidelines would be comparatively less due to the reduction in both VT and VMT per capita. Alternative 3 would result in the same ground-level circulation pattern; therefore, like the Project and Project with Building A Residential/Commercial, this Alternative would result in less than significant impacts related to circulation system policies, traffic safety, and emergency access.

Tribal Cultural Resources

Alternative 3 would result in similar impacts to tribal cultural resources as the Project with Building A Residential/Commercial, as this alternative would have the same amount of excavation. Therefore, Alternative 3 would result in the same potential impact and require implementation of MM TCR-1 to reduce this impact to a less than significant level, same as the Project and Project with Building A Residential/Commercial.

Utilities and Service Systems

Although Alternative 3 would result in the same number of residential dwelling units as the Project with Building A Residential/Commercial, this alternative would not include assisted living facilities that would demand utilities. Alternative 3 would generate approximately 723 residents associated with up to 289 units⁴ and approximately 9 employees associated with the commercial uses on the ground floor of Building A. As shown in Table 4-4, Alternative 3 Utility Comparison, compared to the Project and Project with Building A Residential/Commercial, this alternative would result in reduced water demand, wastewater generation, and solid waste generation based on the applicable demand/generation rates for each utility.

⁴ Based on a rate of 2.5 persons per household derived from the Southern California Association of Governments (SCAG) 2019 Profile for the City of Pasadena (SCAG 2019).

**TABLE 4-4
ALTERNATIVE 3 UTILITY COMPARISON**

Scenario	Net Water Demand (afy)	Net Wastewater Generation (gpd)	Solid Waste Generation (tpy)
Alternative 3	36 ^a	38,168 ^b	1,236 ^c
Project	76	76,844	2,175
Project with Building A Residential/Commercial	68	76,844	1,433
^a Based on water demand of 195 gpd/du (same as Project with Building A Residential/Commercial) plus 3.36 afy for commercial uses and 0.19 afy for landscaping less 30.72 afy for existing uses to be replaced (see Table 3.11-8 in Section 3.11, Utilities and Service Systems, of this Draft EIR) ^b Based on Los Angeles County Sanitation Districts wastewater loading rates of 156 gpd/du for residential of five units or more and 1,000 gpd/1,000 sf for 8,882 sf of restaurant less 15,798 gpd for existing uses to be replaced ^c Based on the City's 2019 disposal rate of 9.2 PPD per capita and 13.4 PPD per employee afy: acre-feet per year; gpd: gallons per day; tpy: tons per year; du: dwelling unit; sf: square feet; PPD: pounds per day			

Electric and natural gas services are regulated by the California Public Utilities Commission (CPUC), which requires that these utilities provide services as required by the public. Telecommunications services are provided on demand in a free market system. Although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 3 related to utilities and service systems would be comparatively less.

Ability to Meet Project Objectives

Alternative 3 would not meet objectives 3 and 4 because this alternative would not provide assisted living facilities or otherwise provide for varying levels of housing for seniors. As such, this Alternative would not provide assisted living facilities with nearby access to local commercial services, health care facilities, community facilities, and public transit. Nor would this Alternative contribute to satisfying local and regional demand for varying level of care to individuals. Alternative 3 would partially meet objectives 1 and 2. The ground floor commercial uses proposed in Building A under this alternative would provide jobs, services, and revenues, in a mixed-use setting in an underutilized site; thereby contributing to the fiscal health of the City and the Central District. However, Alternative 3 would result in a net reduction in commercial land uses on the site compared to the existing conditions.

Alternative 3 would meet objectives 5, 6, and 7. The buildings constructed under this alternative would comply with State and local energy- and water-efficiency requirements and would retain and integrate the historic resources on the site. Also, as discussed above, this alternative would result in reduced VT and VMT per capita and reduced water demand, wastewater generation, and solid waste generation compared to the Project and Project with Building A Residential/Commercial. As such, Alternative 3 would result in a sustainable investment in land uses providing for the needs of residents and businesses in proximity to transit opportunities.

Conclusion

Alternative 3 would result in comparatively reduced impacts related to air quality, energy, GHG emissions, public services, recreation, transportation, and utilities and service systems. For all other topics, including cultural and paleontological resources, hazards and hazardous materials, land use and planning, noise, and tribal cultural resources, Alternative 3 would result in similar impacts. Notably, this alternative would not reduce any of the impacts identified for the Project and Project with Building A Residential/Commercial that would require mitigation during construction to reduce the impacts to a less than significant level.

4.3.4 ALTERNATIVE 4: ALL MEDICAL OFFICE PROJECT WITH VARIANCE FOR HISTORIC RESOURCES

Description of the Alternative

Alternative 4 assumes the demolition of 6 (of the 9) existing buildings totaling 45,912 sf, construction of 2 new buildings totaling 338,376 sf, and 79,553 sf of existing development to be retained (i.e., Whole Foods Market and the historic buildings at 501 and 523 South Arroyo Parkway), the same as the Project or Project with Building A Residential/Commercial. However, Alternative 4 assumes the new buildings would include solely medical office uses except for ground-floor commercial in Building A.

As shown in Table 4-1 above, Alternative 4 would result in a total of 417,929 sf of aboveground development, including the existing buildings to be retained, as follows:

- Building A: a 154,000-sf, 7-story (aboveground) medical office building and ground-floor commercial uses;
- Building B: a 184,376-sf, 7-story (aboveground) medical office building; and
- Up to 1,218 parking spaces in 7 subterranean levels.

Alternative 4 would have maximum building heights, including parapets, of 93.5 feet, the same as the Project. This alternative assumes the historic resources would be retained and incorporated into the design with a variance for historic resources proposed. Alternative 4 assumes the retained historic buildings would operate as restaurants, the same as the Project. Because the same building footprints are assumed under Alternative 4 as the Project, the same number and locations of trees would be removed, and the planting of two new street trees would be required. The points of ingress/egress and on-site circulation would be the same as the Project.

Alternative 4 would involve the same construction phases and overall schedule as the Project, with construction beginning in 2023 over approximately 34 months. Because Alternative 4 would propose two additional levels of subterranean parking, based on a proportional increase in grading per level for the Project, Alternative 4 would involve the excavation and export of approximately 257,614 cy of soil generating an estimated 18,401 one-way truck trips over the course of 4 months (103 workdays). This alternative would result in approximately 40 percent more excavation (or 73,604 cy) than the Project and approximately 75 percent more excavation (or 110,406 cy) than the Project with Building A Residential/Commercial.

Comparative Analysis of Environmental Impacts

Air Quality

Alternative 4 would result in greater construction-related criteria air pollutant emissions than the Project or Project with Building A Residential/Commercial, as this alternative would involve a total of seven levels of subterranean parking. This alternative would result in approximately 40 percent more excavation (or 73,604 cy) than the Project and approximately 75 percent more excavation (or 110,406 cy) than the Project with Building A Residential/Commercial. Therefore, there would be a greater amount of excavation activity with off-road equipment and a greater number of truck trips for soil export. Similarly, as shown in Table 4-5, Alternative 4 Transportation Analysis Comparison, below under "transportation", this alternative would result in an increased VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. Therefore, the impacts of Alternative 4 related to air quality would be comparatively greater than the Project and Project with Building A Residential/Commercial.

Cultural and Paleontological Resources

Alternative 4 would also integrate the historic buildings (501 and 523 South Arroyo Parkway). Therefore, Alternative 4 would result in the potential significant impact related to alterations to these buildings associated with integration into the Project and occupation by new tenants, requiring implementation of MM CUL-1. Although Alternative 4 would require a greater depth of excavation than the Project and the Project with Building A Residential/Commercial, Alternative 4 would result in the same potential impacts to cultural resources as the potential for impacts to unknown historic (buried) and archaeological resources is associated with any excavation in both disturbed and native soils. Therefore, Alternative 4 would result in the same potential impact as the Project and Project with Building A Residential/Commercial and require implementation of MM CUL-2 to reduce this impact to a less than significant level. This Alternative would have less than significant impacts related to paleontological resources, the same as the Project and Project with Building A Residential/Commercial.

Energy

Alternative 4 would result in greater construction-related energy use than the Project or Project with Building A Residential/Commercial, as this alternative would involve a total of seven levels of subterranean parking. This alternative would result in approximately 40 percent more excavation (or 73,604 cy) than the Project and approximately 75 percent more excavation (or 110,406 cy) than the Project with Building A Residential/Commercial. Therefore, there would be a greater amount of excavation activity with off-road equipment and a greater number of truck trips for soil export.

Similarly, as shown in Table 4-5, Alternative 4 Transportation Analysis Comparison, below under “transportation”, this alternative would result in an increased VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. As such, Alternative 4 would result in greater long-term mobile (i.e., vehicle) energy demand; however, stationary (i.e., not transportation/mobile) energy demand would be similar to the Project and Project with Building A Residential/Commercial. Therefore, Alternative 4 would be less energy efficient in construction and operation than the same amount of above-ground development as the Project or Project with Building A Residential/Commercial. Therefore, the impacts of Alternative 4 related to energy use would be comparatively greater than the Project and Project with Building A Residential/Commercial.

Greenhouse Gas Emissions

Alternative 4 would result in greater construction related GHG emissions than the Project or Project with Building A Residential/Commercial, as this alternative would involve a total of seven levels of subterranean parking. This alternative would result in approximately 40 percent more excavation (or 73,604 cy) than the Project and approximately 75 percent more excavation (or 110,406 cy) than the Project with Building A Residential/Commercial. Therefore, there would be a greater amount of excavation activity with off-road equipment and a greater number of truck trips for soil export. Similarly, as shown in Table 4-5, Alternative 4 Transportation Analysis Comparison, below under “transportation”, this alternative would result in an increased VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. Vehicle trips are a major driver of GHG emissions, and a higher VMT reflects a greater relative contribution of the site’s GHG emissions. Therefore, the impacts of Alternative 4 related to GHG emission would be comparatively greater than the Project and Project with Building A Residential/Commercial.

Hazards and Hazardous Materials

Alternative 4 would result in the same potential to expose construction personnel or other individuals to ACMs or lead-based paint LBP that could occur with the Project or Project with Building A Residential/Commercial, as this impact is associated with demolition activities. Construction of this alternative would result in the transport and handling of the same hazardous materials typical of construction activities and would also result in less than significant impacts through compliance with applicable regulations. Alternative 4 would result in the generation of biomedical waste and other hazardous materials common to commercial and medical uses. As with the Project, all transport, use, and disposal of hazardous materials under this alternative would be conducted in compliance with applicable regulations and would result in less than significant impacts. Like the Project and Project with Building A Residential/Commercial, Alternative 4 would result less than significant impacts related to hazards and hazardous materials.

Land Use and Planning

Under Alternative 4, there would also be change in zoning to a PD zone and adoption of a PD Plan. Similarly, a variance for historic resources would be requested to implement these land uses, the same as the Project and Project with Building A Residential/Commercial. Because a PD zone simultaneously establishes applicable land use regulations and development standards specific to that zoning district and is developed in consideration of existing zoning requirements, with approval of the zone change to a PD zone and approval of this alternative, including Design Review, Alternative 4 would be considered compatible with the City's zoning designations. However, this alternative would provide less mixed-use development near transit and other existing infrastructure (e.g., roads, utilities, services), and would provide no senior care or housing facilities that are needed in the region.

Regarding land use plans, policies, or regulations adopted for the purpose of avoiding or reducing an environmental effect, for the City of Pasadena, these are focused on historic resources, GHG emissions/sustainability, and trees/open space. Alternative 4 would result in the same potential impact on historic resources and require implementation of MM CUL-1, as the Project. Alternative 4 would be consistent with SCAG's 2020-2045 RTP/SCS, as this alternative would place a higher density land use on an underutilized site near transit. However, the provision of solely medical office with limited commercial, and no mix of housing and/or senior care and housing, would result in a land use pattern that contributes to higher GHG emissions than the Project or Project with Building A Residential/Commercial. Also, this alternative would result in an increased VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. Alternative 4 would result in the same number of tree removals and the same requirement for planting of two new street trees as the Project or Project with Building A Residential/Commercial. Therefore, the impacts of Alternative 4 related to land use and planning would be comparatively greater than the Project and Project with Building A Residential/Commercial.

Noise

Alternative 4 would generate the same level of construction noise and vibration as the Project and Project with Building A Residential/Commercial and require implementation of MM NOI-1 to reduce potential vibration impacts to the remaining on-site buildings to a less than significant level. Although there would be a greater amount of excavation associated with this Alternative, this would not affect the noise generation on a daily basis during the excavation phase of construction. Like the Project or Project with Building A Residential/Commercial, although Alternative 4 would generate a higher volume of vehicle trips than the existing conditions, it would also not result in a perceptible change in noise levels. This is because it generally takes a doubling of traffic volumes to generate a change in noise levels that is perceptible to human hearing (i.e., about 3 dBA). The

noise generated from stationary uses from this alternative would be similar to the Project and Project with Building A Residential/Commercial and would also be less than significant. Like the Project and Project with Building A Residential/Commercial, Alternative 4 would result in less than significant impacts related to noise with implementation of MM NOI-1.

Public Services and Recreation

Alternative 4 would result in a reduced demand for public services tied to resident population (i.e., schools and/or libraries) and recreational facilities as the Project with Building A Residential/Commercial, because this alternative would not include any housing. Alternative 4 would result in a similar demand for fire protection and police protection services, because these services are tied to all land development regardless of type. Therefore, although impacts with the Project and Project with Building A Residential/Commercial are less than significant, the impacts of Alternative 4 related to public services and recreation would be comparatively lesser than the Project and Project with Building A Residential/Commercial.

Transportation

Pasadena DOT calculated the transportation metrics for each alternative. As shown in Table 4-5, Alternative 4 Transportation Analysis Comparison, this alternative would result in an increased VT and VMT per capita, compared to the Project and Project with Building A Residential/Commercial. Additionally, the VT and VMT per capita would exceed the significance threshold for these metrics. The Alternative 4 metrics related to bicycle and transit networks and pedestrian accessibility are similar to the Project and Project with Building A Residential/Commercial.

**TABLE 4-5
ALTERNATIVE 4 TRANSPORTATION ANALYSIS COMPARISON**

Transportation Performance Metrics	Significant Impact Cap (Existing)	Incremental Change (Existing + Alternative 4)	Incremental Change (Existing + Project / Exchange Project)	Significant Impact for Alternative?
VMT Per Capita	>22.6	28.6	19.5 / 8.2	Yes
VT Per Capita	>2.8	2.9	2.0 / 1.4	Yes
Proximity and Quality of Bicycle Network	<31.7%	32.1%	32.0% / 32.0%	No
Proximity and Quality of Transit Network	<66.6%	66.9%	66.8% / 66.8%	No
Pedestrian Accessibility	<3.9	3.9	3.9 / 3.9	No
VMT: vehicle miles traveled; VT: vehicle trips				
Source: Pasadena DOT 2022c.				

Therefore, Alternative 4 would exceed the CEQA transportation thresholds defined in the City's TIA Guidelines, resulting in a new significant impact compared to the Project or Project with Building A Residential/Commercial. Therefore, the impacts of Alternative 4 related to transportation would be comparatively greater than the Project and Project with Building A Residential/Commercial.

Tribal Cultural Resources

Alternative 4 would result in similar impacts to tribal cultural resources as the Project with Building A Residential/Commercial, although this alternative would have a greater amount of excavation.

The potential for impacts to unknown tribal cultural resources is associated with any excavation in both disturbed and native soils. Therefore, Alternative 4 would result in the same potential impact and require implementation of MM TCR-1 to reduce this impact to a less than significant level, same as the Project and Project with Building A Residential/Commercial.

Utilities and Service Systems

Based on the employee generation per square foot of the Project, Alternative 4 would generate approximately 1,435 employees associated with the medical office uses and approximately 9 employees associated with the commercial uses on the ground floor of Building A. As shown in Table 4-6, Alternative 4 Utility Comparison, compared to the Project and Project with Building A Residential/Commercial, this alternative would result in higher water demand and solid waste generation based on the applicable demand/generation rates for these utilities. For wastewater generation, Alternative 4 would result in a lower generation than the Project and Project with Building A Residential/Commercial.

**TABLE 4-6
ALTERNATIVE 4 UTILITY COMPARISON**

Scenario	Net Water Demand (afy)	Net Wastewater Generation (gpd)	Solid Waste Generation (tpy)
Alternative 4	86 ^a	60,159 ^b	3,531 ^c
Project	76	76,844	2,175
Project with Building A Residential/Commercial	68	76,844	1,433

^a Based on water demand of 300 gpd/1,000 sf for 335,376 sf of medical office uses plus 3.36 afy for commercial uses and 0.19 afy for landscaping less 30.72 afy for existing uses to be replaced (see Table 3.11-8 in Section 3.11, Utilities and Service Systems, of this Draft EIR)

^b Based on Los Angeles County Sanitation Districts wastewater loading rates of 200 gpd/1,000 sf of professional building and 1,000 gpd/1,000 sf for 8,882 sf of restaurant less 15,798 gpd for existing uses to be replaced

^c Based on the City's 2019 disposal rate of 13.4 PPD per employee to a total of 1,444 employees

afy: acre-feet per year; gpd: gallons per day; tpy: tons per year; du: dwelling unit; sf: square feet; PPD: pounds per day

Electric and natural gas services are regulated by the California Public Utilities Commission (CPUC), which requires that these utilities provide services as required by the public. Telecommunications services are provided on demand in a free market system. Based on the substantive increase in water demand and solid waste generation, the impacts of Alternative 4 related to utilities and service systems would be comparatively greater than the Project and Project with Building A Residential/Commercial but would remain less than significant.

Ability to Meet Project Objectives

Alternative 4 would not meet objectives 3 and 4 because this Alternative would not provide assisted living facilities or otherwise provide for varying levels of housing for seniors. As such, this Alternative would not provide assisted living facilities with nearby access to local commercial services, health care facilities, community facilities, and public transit. Nor would this Alternative contribute to satisfying local and regional demand for varying level of care to individuals.

Alternative 4 would partially meet objective 5. The buildings constructed under this Alternative would comply with State and local energy- and water-efficiency requirements, same as the Project and Project with Building A Residential/Commercial. However, as discussed above, this Alternative would result in greater VT and VMT per capita and result in a new significant impact related to transportation. Additionally, Alternative 4 would result in substantively higher water

demand and solid waste generation, while wastewater generation would be lower than the Project and Project with Building A Residential/Commercial.

Alternative 4 would meet objectives 1, 2, 6, and 7. This Alternative would provide jobs, services, and revenues, on an underutilized site and in proximity to transit opportunities; thereby contributing to the fiscal health of the City and the Central District. Alternative 4 would retain and integrate the historic resources on the site.

Conclusion

Alternative 4 would result in comparatively increased impacts related to air quality, energy, GHG emissions, land use and planning, and utilities and service systems. For transportation, the impacts of Alternative 4 related to conflict with the City's TIA Guidelines would be comparatively greater and impacts related to all other transportation issues (circulation system policies, traffic safety, and emergency access) would be similar. For public services and recreation, Alternative 4 would result in comparatively reduced impacts. For all other topics, including cultural and paleontological resources, hazards and hazardous materials, noise, and tribal cultural resources, Alternative 4 would result in similar impacts. Notably, this Alternative would not reduce any of the impacts identified for the Project and Project with Building A Residential/Commercial that would require mitigation during construction to reduce the impacts to a less than significant level.

4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an environmentally superior alternative. Section 15126.6(e)(2) of the State CEQA Guidelines states that, if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. Table 4-7, Comparison of Alternative Impacts, on page 4-28 provides a summary comparison of impacts resulting from all alternatives to the Project and Project with Building A Residential/Commercial. Table 4-8, Ability of Project Alternatives to Meet Objectives, on page 4-29 provides a summary of each alternatives relative ability to meet the Project objectives.

As shown in Table 4-7, only Alternative 1 would comparatively reduce all environmental impacts of the Project or Project with Building A Residential/Commercial. Of the build alternatives (i.e., Alternatives 2, 3, 4), Alternative 2/Alternative 2 with Building A Residential/Commercial and Alternative 3 would comparatively have a similar reduction in impacts, with all topics either reduced (six topics reduced for each alternative) or equal compared to both the Project and Project with Building A Residential/Commercial. Alternative 2/Alternative 2 with Building A Residential/Commercial and Alternative 3 both have comparatively reduced impacts related to the same topics except energy and noise. Alternative 2/Alternative 2 with Building A Residential/Commercial would have similar impacts related to energy and reduced impacts related to noise. Alternative 3 would have reduced impacts related to energy and similar impacts related to noise. Alternative 4 would comparatively increase environmental impacts for several topics.

The comparatively reduced noise impact for Alternative 2 and Alternative 2 with Building A Residential/Commercial is related to reduced operational traffic generation. However, this change in traffic would not result in an audible change in noise levels (i.e., 3 dBA or more).

The comparative increased energy impact for Alternative 2 and Alternative 2 with Building A Residential/Commercial is related to these scenarios being a less efficient use of land. While this Alternative would not be considered to result wasteful, inefficient, or unnecessary consumption of energy, this Alternative would result in the same amount of demolition to redevelop an underutilized site and the resulting development would be approximately half as dense as

Alternative 3 or the Project and Project with Building A Residential/Commercial. As discussed previously, although this Alternative would result in a reduced VT and VMT per capita, it would not support regional and local planning policies related to reducing vehicle trips per capita by increasing density (including housing) near transit to the same degree as Alternative 3 or Project and Project with Building A Residential/Commercial.

Critically, Alternative 2 and Alternative 2 with Building A Residential/Commercial would be less consistent with the 2020-2045 RTP/SCS than Alternative 3 or the Project and Project with Building A Residential/Commercial. This is because of the reduced amount of redevelopment on an underutilized site, particularly near transit, would result in a land use pattern that contributes less towards the GHG emissions reduction targets compared to Alternative 3, the Project, and Project with Building A Residential/Commercial. This Alternative would also provide less mixed-use development near transit and other existing infrastructure (e.g., roads, utilities, services).

On balance, when considering that the difference in comparative impacts between Alternative 2/Alternative 2 with Building A Residential/Commercial and Alternative 3 ties into overriding land use policies adopted for the purposing of avoiding or reducing an environmental effect, the higher intensity development represented by Alternative 3 would be a preferable scenario.

None of the build alternatives would reduce or eliminate the significant impacts of the Project and Project with Building A Residential/Commercial with or without mitigation. This is because these impacts are related to construction activity and would occur regardless of the scope of construction. Specifically, potential impacts to cultural and tribal cultural resources are associated with any excavation in both disturbed and native soils. The potential impact related to vibration damage to the existing on-site buildings to remain would occur with any of the alternatives because the same type(s) of construction activity and equipment that could result in this impact would be used.

Alternative 3 is concluded to be the environmentally superior alternative because of (1) reduced comparative impacts, (2) the extent of the reduction in VT and VMT per capita compared to both the Project and Project with Building A Residential/Commercial while maximizing the redevelopment of an underutilized site near transit, and (3) a greater consistency with local, regional, and State policies adopted for the purpose of avoiding or reducing an environmental effect.

**TABLE 4-7
COMPARISON OF IMPACTS FOR PROJECT ALTERNATIVES**

PEIR Section & Environmental Issue	Comparison of Each Alternative to Project/Project with Building A Residential/Commercial Impacts			
	Alternative 1 (No Project/ No Development)	Alternative 2 (Project Development with Existing Zoning) ^a	Alternative 3 (All Residential Project with Variance for Historic Resources)	Alternative 4 (All Medical Office Project with Variance for Historic Resources)
3.1 Air Quality	<	<	<	>
3.2 Cultural and Paleontological Resources	<	=	=	=
3.3 Energy	<	=	<	>
3.4 Greenhouse Gas Emissions	<	<	<	>
3.5 Hazards and Hazardous Materials	<	=	=	=
3.6 Land Use and Planning	<	=	=	>
3.7 Noise	<	<	=	=
3.8 Public Services and Recreation	<	<	<	<
3.9 Transportation	<	<	<	>
3.10 Tribal Cultural Resources	<	=	=	=
3.11 Utilities and Service Systems	<	<	<	>
^a Reflects analysis of both Alternative 2 and Alternative 2 with Building A Residential/Commercial; if one comparative impact finding is shown it applies to both scenarios Legend: > – Impact Greater than Project/Project with Building A Residential/Commercial < – Impact Less than Project/Project with Building A Residential/Commercial < / > – Impact Less than Project / Greater than Project with Building A Residential/Commercial = – Impact Same as Project/Project with Building A Residential/Commercial (with mitigation if applicable)				

**TABLE 4-8
ABILITY OF PROJECT ALTERNATIVES TO MEET OBJECTIVES**

Project Objectives	Comparison of Each Alternative to Project Objectives			
	Alternative 1 (No Project/ No Development)	Alternative 2 (Project Development with Existing Zoning)	Alternative 3 (All Residential Project with Variance for Historic Resources)	Alternative 4 (All Medical Office Project with Variance for Historic Resources)
1. Reinforce and strengthen Arroyo Parkway as a major commercial corridor and the Central District's economic vitality through the development of multi-story buildings with a variety of complementary commercial and/or residential uses in underutilized areas with higher development capacity.	○	◐	◐	●
2. Provide jobs, services, revenues, and opportunities that will support Pasadena as an economically vital city and allow for continued fiscal health	○	◐	◐	●
3. Develop assisted living facilities that have access to local commercial services, health care facilities, community facilities, and public transit	○	◐	○	○
4. Satisfy local and regional demand for varying levels of care (independent living, residential care, continuing care) to individuals, depending on need, that are transit-accessible and pedestrian-friendly	○	◐	○	○
5. Improve Pasadena's infrastructure and urban form through modernized buildings that are energy- and water-efficient	○	◐	●	◐
6. Preserve and integrate Pasadena's historic resources as part of a complementary development that reduces the risk of resource demolition, deterioration by neglect, and/or impacts from natural circumstances.	○	◐	●	●
7. Invest sustainably by providing for the needs of existing and future residents and businesses while in proximity to transportation opportunities	○	◐	●	●
Legend: ● – Fully Meets ◐ – Partially Meets ○ – Does Not Meet				

4.5 REFERENCES

Pasadena Department of Transportation (DOT). 2022a (January 14). Alternative_2_wcalcs.pdf. Pasadena, CA: Pasadena DOT.

———. 2022b (January 14). Alternative_3_wcalcs.pdf. Pasadena, CA: Pasadena DOT.

———. 2022c (January 14). Alternative_4_wcalcs.pdf. Pasadena, CA: Pasadena DOT.

SECTION 5.0 OTHER REQUIRED CEQA CONSIDERATIONS

Section 15126 of the State CEQA Guidelines requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. An EIR must identify the following for the project being analyzed (the location of the required information in this Draft EIR is presented in parentheses):

- a) Significant environmental effects of the proposed Project (see Table ES-1 and Sections 3.1 through 3.11);
- b) Significant environmental effects which cannot be avoided if the proposed Project is implemented (see Table ES-1, Sections 3.1 through 3.11, and Section 4.0);
- c) Significant irreversible environmental changes which would be involved in the proposed Project should it be implemented (see Section 5.1);
- d) Growth-inducing impacts of the proposed Project (see Section 5.2);
- e) The mitigation measures proposed to minimize significant effects (see Table ES-1 and Sections 3.1 through 3.11); and,
- f) Alternatives to the proposed Project (see Section 4.0)

5.1 **SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES**

Section 15126.2(c) of the State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the Project. Section 15126.2(c) states:

“Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impact and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current compensation is justified.”

As such, a project would generally result in significant irreversible environmental changes if:

- The proposed consumption of resources is not justified (e.g., the project involved the wasteful or inefficient use of energy);
- The project would involve a large commitment of nonrenewable resources; or
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

The environmental effects related to the implementation of the proposed Project are analyzed in Sections 3.1 through 3.11 of this Draft EIR and in the Initial Study (Appendix A-1). Implementation of the Project would convert all but two of existing commercial buildings to a medical office building, commercial uses, and an assisted living building with subsurface parking and related improvements. The Project with Building A Residential/Commercial would convert the site into a residential building, commercial uses, and an assisted living building. Because the proposed uses would be a redevelopment of the site, neither the Project nor Project with Building A Residential/Commercial is considered a new long-term commitment of land resources. Nevertheless, construction activities would result in the irretrievable commitment of nonrenewable

energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment. However, the Project or Project with Building A Residential/Commercial would not be creating a need for jobs or housing. The resulting growth under either scenario would fulfill an existing and anticipated future need that is based on estimates of local and regional population growth. Therefore, the non-renewable resources used in construction would be expected to be consumed by housing and employment-generating land uses that are anticipated, and are unfulfilled, in the City and the wider region. Additionally, the land uses proposed are not unusually wasteful or excessive in terms of construction materials and fossil fuel use.

Over the long term, operation of the new land uses would require the commitment and reduction of nonrenewable and slowly renewable resources, including petroleum fuels and natural gas (for vehicle emissions, lighting, heating, and cooling of structures). Other resources that are slow to renew and/or recover from environmental stressors would also be impacted by long-term implementation of the Project or Project with Building A Residential/Commercial (e.g., air quality through the combustion of fossil fuels and production of greenhouse gases, and water supply through the increased potable water demands for drinking, cooking, cleaning, landscaping, and general maintenance needs). However, the proposed uses would be required to meet Title 24 energy efficiency standards and applicable CALGreen requirements. As such, operation of the proposed uses would be more energy efficient than any existing use on the site. Additionally, the land uses proposed are not unusually wasteful or excessive in terms of fossil fuel use. This is in part because of the higher density development for the Project site. Nonetheless, the Project or Project with Building A Residential/Commercial represent a long-term commitment of essentially non-renewable resources.

Regarding the potential for irreversible damage caused by environmental accidents, while construction and operation of the Project or Project with Building A Residential/Commercial would result in the use, transport, storage, and disposal of hazardous materials and/or wastes typical of urban areas, such as associated with medical/health care facilities, dry cleaners, restaurant and office cleaning/maintenance, and landscape maintenance, as described in Section 3.5, Hazards and Hazardous Materials, all activities would comply with applicable State and federal laws related to hazardous materials transport, use, and storage. This would significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage, and such an accident resulting in irreversible damage is not considered reasonably foreseeable.

In summary, the Project or Project with Building A Residential/Commercial would result in the irretrievable commitment of limited, slowly renewable, and nonrenewable resources, which would reduce the availability of these particular resource quantities for future generations or for other future uses. However, the use of such resources are anticipated and accounted for in the State, regional, and local regulations, which generally prohibit wasteful practices and require environmentally conservative actions, as summarized in the “Relevant Programs and Regulations” discussion within Sections 3.1 through 3.11 of this Draft EIR. Therefore, although irreversible changes would result from implementation of the Project or Project with Building A Residential/Commercial, such changes would not be considered significant, and no mitigation is required.

5.2 GROWTH-INDUCING IMPACTS

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, this analysis examines ways in which the Project or Project with Building A Residential/Commercial could foster economic or population growth or the construction of additional development, either directly or indirectly, in the surrounding environment. Also, this section discusses whether the Project or Project with Building A Residential/Commercial could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of

ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to environmental effects.

Accordingly, a project may foster spatial, economic, or population growth in a geographic area if it meets one or more of the following criteria:

1. Removal of an obstacle to growth (e.g., construction or extension of major infrastructure, providing new access to an area);
2. Foster population growth (e.g., construction of additional housing), either directly or indirectly;
3. Foster economic effects that could result in other activities that could significantly affect the environment (e.g., changes in revenue base, employment expansion);
4. Establish a precedent-setting action that could result in other activities that could significantly affect the environment (e.g., an innovation, a change in zoning, general plan amendment); and/or
5. Development of or encroachment on an isolated or adjacent area of open space (being distinct from an in-fill project).

The potential growth-inducing impacts associated with the Project and Project with Building A Residential/Commercial are evaluated below against these criteria. It should be noted that growth-inducing effects are not necessarily beneficial, detrimental, or of little significance to the environment (Section 15126.2[d] of the State CEQA Guidelines). This issue is presented to provide additional information on ways in which this Project could contribute to significant changes in the environment, beyond the direct consequences of implementing the Project or Project with Building A Residential/Commercial.

1) Would this Project remove obstacles to growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area or through changes in existing regulations pertaining to land development)?

As discussed in Section 3.11, Utilities and Service Systems, no major new infrastructure facilities are required to support the Project or Project with Building A Residential/Commercial beyond the new connections to existing utilities that would be constructed on the site. Existing utility facilities are available adjacent to the Project site; however, new service connections to these existing lines (including water, sewer, electric, telecommunication systems, and storm drain lines) would be needed. There are existing roadways that serve the site and no new roadways or extension of existing roadways would be necessary.

As discussed in Section 2.7, Intended Uses of the EIR, approval of the Planned Development (PD) Zoning District and PD Plan (this includes approval of the Affinity Project, zoning map amendment to rezone the property from CD-6 to PD-39, and variance for Historic Resources for Building Height) would be required to allow for development of the Project or Project with Building A Residential/Commercial. But these changes would be specific to the Project site and would not remove obstacles to growth in the surrounding area. The proposed uses under either scenario are in line with the collective uses and growth within the area and part of the development in the City that has been trending toward greater density development. As such, this type of growth is consistent with the general uses in the Project area.

2) Would this Project result in the need to expand one or more public services to maintain desired levels of service?

As discussed in Section 3.8, Public Services and Recreation, none of the public service agencies consulted—Pasadena Fire Department; Pasadena Police Department; Pasadena’s Parks, Recreation, and Community Services Department; and Pasadena Public Library—during the preparation of this Draft EIR indicated that the Project or Project with Building A Residential/Commercial would necessitate the immediate expansion of their existing resources in order to maintain desired levels of service. While Pasadena Unified School District was consulted, there was no response. However, as discussed in Section 3.8, Senate Bill 50 establishes developer fees that are considered full and complete mitigation for school facilities. If any public service agency’s resources do need to be expanded because of Citywide growth, funding mechanisms are in place through existing regulations to accommodate such growth. The Project or Project with Building A Residential/Commercial would not, therefore, have significant growth-inducing consequences with respect to public services.

3) Would this Project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

During construction of the Project or Project with Building A Residential/Commercial, a number of design, engineering, and construction-related jobs would be created at the site. This would be a temporary situation, lasting until construction is completed. The construction crew would obtain commercial goods and services from existing businesses near the site. This would provide economic stimulus in the area; however, these jobs are typically filled by existing residents of the region and would not be substantial enough to foster other activities (e.g., new real estate development) that would have significant effects on the environment.

As discussed in Section 2.0, Environmental Setting and Project Description, operation of the Project would result in up to 222 residents, 737 employees, and up to 694 visitors per day. Operation of the Project with Building A Residential/Commercial would result in up to 715 residents, 95 employees, and up to 128 visitors per day. This would represent an increased demand for economic goods and services in the Project area and could, therefore, encourage the creation of new businesses, the expansion of existing businesses, or investment in commercial uses near the site that address these economic needs.

At any given time, there are a variety of vacant commercial buildings for sale or lease available throughout the City that can accommodate future business. New commercial or mixed-use development not utilizing existing buildings at the respective site would generally involve site redevelopment. With regard to expansion of commercial uses in the City resulting in environmental impacts, both the use of existing buildings (and related updates) or redevelopment of a site are generally relatively low impact activities compared to development on greenfields and/or locations without existing utility and transportation infrastructure. While there could be an indirect, growth-inducing effect caused by the Project (or Project with Building A Residential/Commercial), such development would be within the growth anticipated for the City. As noted in Section 2.6, Approach to Cumulative Impact Analysis, there is over 3.3 million commercial square feet of remaining development capacity throughout the City pursuant to the City’s General Plan (refer to Table 2-5) (Pasadena 2021).

Demand for housing from on-site employees not already living in the City may also increase occupancy in the City’s vacant dwelling units (estimated at 11,479 dwelling units

in May 2021) (DOF 2021). Additionally, any demand for housing from employees would also be within the growth anticipated for the City, as there are 2,483 residential units in the City's remaining development capacity as of October 2021 (Pasadena 2021). The environmental impacts of future development near the site would have to be considered by the City of Pasadena as part of individual environmental reviews, in accordance with CEQA. Therefore, the Project and Project with Building A Residential/Commercial would not result in significant impacts with regards to indirect growth due to encouragement of economic effects.

4) Would approval of this Project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

The Project and Project with Building A Residential/Commercial would not require a General Plan amendment, but approval of a PD district and PD Plan (includes zoning map amendment to rezone the property from CD-6 to PD-39, and variance for Historic Resources for Building Height). Adoption of a PD zoning district would reclassify the Project site from CD-6 to PD-39, while simultaneously establishing applicable land use regulations and development standards that are specific to the newly established zoning district. The regulations and standards that dictate permitted and conditionally permitted land uses and development would be prescribed in the accompanying PD Plan. This ensures the Project or Project with Building A Residential/Commercial is developed as intended. PD Plans are developed in consideration of existing zoning requirements that are applicable to a project site while also providing flexibility in site usage and building design. As noted previously, this change in zoning would be specific to the Project site. Also, development of the Project site using a PD Plan is not precedent setting because it is an existing, accepted part of the Pasadena Zoning Code.

No changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement this Project. Mitigation measures have been identified in Sections 3.1 through 3.11 to require that Project implementation complies with all applicable federal, State, regional, and City standards and ordinances to ensure that there are no conflicts with applicable land development regulations and that environmental impacts are minimized. Finally, creation of commercial, medical, assisted living, and/or residential facilities is not unique, such that its implementation would set a precedent, facilitating other activities and resulting in significant impacts to the environment.

While the Project may induce development or redevelopment at parcels within the Project area, the potential for reuse of unutilized commercial structures and the (re)development of lands in the surrounding area are subject to property owner discretion and often largely influenced by regional economic conditions and market demands that may have limited or major links to the Project. Site improvements may make adjacent areas more attractive to investors and promote redevelopment. These future projects would require independent environmental review under CEQA. Therefore, the impacts of subsequent proposals would require environmental analysis and associated mitigation to avoid or minimize their potential subsequent impacts.

5.3 **REFERENCES**

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