DEPARTMENT OF CITY PLANNING

RECOMMENDATION REPORT

City Planning Commission

Date: November 21, 2024
Time: After 8:30 a.m.
Place: Van Nuys City Hall, 2nd Floor
14410 Sylvan Street
Van Nuys, Los Angeles 91401

This meeting may be available virtually, in hybrid format. Please check the meeting agenda (available at the link below) approximately 72 hours before the meeting for additional information or contact cpc@lacity.org.

https://planning.lacity.org/about/commissions-boards-hearings

Public Hearing: September 24, 2024
Appeal Status: Density Bonus off-menu incentives and waivers are not further appealable. Site Plan Review is appealable to City Council.
Expiration Date: December 9, 2024
Multiple Approval: Yes

Case No.: CPC-2024-3390-DB-PR-VHCA
CEQA No.: ENV-2024-3391-CE
Incidental Case: N/A
Council No.: 7 – Rodriguez
Plan Area: Arleta – Pacoima
Specific Plan: None
Certified NC: Pacoima
General Plan Land Use Designation: Neighborhood Office Commercial
Zone: [Q]C2-1-CUGU

Applicant: Kevin Brunk, 118, LP
Representative: Henry Harutunyan, Mike Ascione

PROJECT LOCATION: **11623 Glenoaks Boulevard**

PROPOSED PROJECT: The project involves the demolition of an existing commercial (DMV) building and the construction, use, and maintenance of a 7 story, 70-foot mixed-use building including 246 residential units, of which 28 units (11 percent) will be set aside for Very Low Income Household occupancy, and 28,302 square feet of ground floor commercial. The project proposes to provide 318 parking spaces within 2 subterranean levels.

REQUESTED ACTIONS:

1. Pursuant to CEQA Guidelines Section 15332, Class 32, an Exemption from CEQA, and that there is no substantial evidence demonstrating that an exception to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 applies;

2. Pursuant to LAMC Section 12.22-A,25, a Density Bonus for a Housing Development with a total of 246 units, of which 28 units will be set aside for Very Low Income households, along with the following Off-Menu Incentives and Waiver of Development Standards:

   a. An off-menu incentive to allow an increase in the Floor Area Ratio (FAR) to 2.322:1 in lieu of the otherwise allowable 1.5:1 in the [Q]C2-1 Zone;

   b. An off-menu incentive to allow a building height of 70 feet in lieu of the 26-feet, 8-inches otherwise allowed; and

c. A waiver of development standards to allow relief from Transitional Height requirements pursuant to LAMC Section 12.21.1-A.10; and

3. Pursuant to LAMC Section 16.05, a Project Review for a project resulting in an increase of 50 or more dwelling units.

RECOMMENDED ACTIONS:

1. **Determine** that based on the whole of the administrative record, the project is exempt from CEQA pursuant to CEQA Guidelines, Section 15332, Class 32, and there is no substantial evidence demonstrating that an exception to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 applies;

2. **Approve** a Density Bonus for a housing development project consisting of 246 dwelling units, of which 28 units will be set aside for Very Low Income households, and requesting the following Off-Menu Incentives and Waiver of Development Standards:

    a. An off-menu incentive to allow an increase in the Floor Area Ratio (FAR) to 2.322:1 in lieu of the otherwise allowable 1.5:1 in the [Q]C2-1 Zone;

    b. An off-menu incentive to allow a building height of 70 feet in lieu of the 26-feet, 8-inches otherwise allowed; and

    c. A waiver of development standards to allow relief from Transitional Height requirements pursuant to LAMC Section 12.21.1-A.10; and

3. **Approve** a Project Review for a development which creates, or results in, an increase of 50 or more dwelling units;

4. **Adopt** the attached Conditions of Approval; and

5. **Adopt** the attached Findings.

VINCENT P. BERTONI, AICP
Director of Planning

Heather Bleemers
Senior City Planner

Esther Ahn
City Planner

ADVICE TO PUBLIC: *The exact time this report will be considered during the meeting is uncertain since there may be several other items on the agenda. Written communications may be mailed to the *Commission Secretariat, Room 272, City Hall, 200 North Spring Street, Los Angeles, CA 90012* (Phone No. 213-978-1300). While all written communications are given to the Commission for consideration, the initial packets are sent to the week prior to the Commission's meeting date. If you challenge these agenda items in court, you may be limited to raising only those issues you or someone else raised at the public hearing agendized herein, or in written correspondence on these matters delivered to this agency at or prior to the public hearing. As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability, and upon request, will provide reasonable accommodation to ensure equal access to these programs, services and activities. Sign language interpreters, assistive listening devices, or other auxiliary aids and/or other services may be provided upon request. To ensure availability of services, please make your request not later than three working days (72 hours) prior to the meeting by calling the Commission Secretariat at (213) 978-1300.

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PROJECT ANALYSIS

PROJECT SUMMARY

The project involves the demolition of an existing commercial (DMV) building and the construction, use, and maintenance of a 7 story, 70-foot mixed-use building including 246 residential units, of which 28 units (11 percent) will be set aside for Very Low Income Household occupancy, and 28,302 square feet of ground floor commercial. The proposed project would encompass 226,260 square feet of total building area which equates to a Floor Area Ratio of approximately 2.23 to 1. The project proposes to provide 318 parking spaces within 2 subterranean levels as well as 264 long-term and 28 short-term bicycle spaces.

The proposed development, as depicted in **Figure 1** below, has been configured with a total of 246 dwelling units consisting of 6 studio units, 157 one-bedroom units, 67 two-bedroom units, and 16 three-bedroom units. Based upon this arrangement, along with a 10 percent reduction with bicycle parking, 260 residential parking spaces would be required. The project complies with this requirement by providing 262 residential parking spaces. To account for the commercial parking, 58 commercial parking spaces will be provided which meets the Code-required amount pursuant to LAMC Section 12.22-A.25(d). All parking would be provided within two subterranean levels and therefore fully screened from public view. Vehicular ingress and egress for commercial parking would occur off the northern drive aisle (a two-way driveway) which would also serve as a fire lane and provide a residential loading/delivery zone and retail loading dock. Vehicular ingress and egress for residential parking would occur along a two-way driveway to the rear of the project site (western portion). As the project proposes to provide a large-format commercial tenant on the ground floor facing Glenoaks Boulevard (envisioned to be a grocery store), the retail entrance would present as the most prominent entry point of the project. Several residential access points for pedestrians would be provided, however, along the front of the building (residential lobbies flanking the commercial entrance to the north and south) and the northern drive aisle near the retail loading dock and residential loading/delivery zone (leads to the residential mail/parcel rooms, leasing office, trash room, and indoor and outdoor recreation areas). The path for these pedestrian entrances would be clearly indicated with a different type of paving and illuminated for safety in the evenings.

Figure 1. *Perspective rendering of proposed development from Glenoaks Boulevard.*

The subject property has a designated front yard facing Glenoaks Boulevard and a rear yard fronting Eustace Street and De Garmo Avenue. The proposed project would observe a 2-foot, 8.5-inch front yard setback and a 71-foot, 4-inch rear yard setback. The project would observe a 14-foot, 8-inch southern side yard setback and a 34-foot northern side yard setback.

Pursuant to LAMC Section 12.21-G, the project, as proposed, is required to provide 27,475 square feet of open space. The project provides approximately 34,045 square feet of open space, including 31,245 square feet of common open space (6,182 square feet on the ground floor, 20,733 square feet on the third floor, and 4,330 square feet on the seventh floor) and private balconies along residential levels 3 through 7 which range from 500 square feet to 750 square feet in size. There are at least five street trees along Glenoaks Boulevard, all of which will be retained and protected in place. Development of the project would not require the removal of any protected trees and 62 new trees would be planted on-site.

PROJECT BACKGROUND

Project Site

The project site consists of 4 parcels tied into a single lot encompassing a total surface area of approximately 97,453 square feet, or 2.24 acres. The subject property is rectangular shaped and features approximately 225 feet of street frontage along the westerly side of Glenoaks Boulevard as well as a depth of approximately 455 feet, as shown in Figure 2 below. The site is currently developed with a commercial building and surface parking lot which was operating as a DMV office until it was vacated on September 30, 2023. These improvements are proposed to be demolished as part of the proposed project.

Figure 2. *Outline of project site boundaries along Glenoaks Boulevard.*

General Plan Land Use Designation and Zoning

The project site is located in the Arleta – Pacoima Community Plan area which is one of the 35 Community Plans which together form the Land Use Element of the General Plan. The Arleta – Pacoima Community Plan designates the subject property for Neighborhood Office Commercial land uses with corresponding zones of C1.5, C4, C2, C1, CR, RAS3, and P(HD1VL). The project site is zoned [Q]C2-1-CUGU and is thus consistent with the existing land use designation. The site is located within the Clean Up Green Up (ZI-2458) Supplemental Use District, but is not located within any Specific Plan areas and is not subject to any community design overlays or interim control ordinances.

Surrounding Properties

The project site is located in a substantially urbanized and developed area surrounded primarily by commercial, residential, and institutional uses. Properties to the north are zoned C2-1-CUGU and P-1-CUGU and are developed with a school, commercial strip mall, and church. Properties to the east, across Glenoaks Boulevard, are zoned R1-1-CUGU and are developed with single-family residences. Properties directly adjacent to the west are also zoned R1-1-CUGU and developed with single-family homes, but properties farther west across De Garmo Avenue are zoned PF-1VL-CUGU and is improved as a school. The 118 Ronald Reagan Freeway, zoned PF-1XL-CUGU, directly abuts the project site to the south. Farther south, across the freeway, properties are zoned R1-1-CUGU, [Q]P-1VL-CUGU, and [Q]C2-1VL-CUGU and are developed with single-family residences and retail commercial uses.

Streets and Circulation

Glenoaks Boulevard, adjoining the subject property to the east, is a designated Boulevard II, dedicated to a right-of-way width of 100 feet and improved with concrete curb, gutter, and sidewalk.

Relevant Cases

Subject Property

There are no relevant cases on the subject property.

Surrounding Properties

The following relevant cases were identified to be within 1,000 feet of the project site:

Case No. ZA-2017-530-CU-SPR – On July 24, 2020, the Zoning Administrator approved a Conditional Use to permit a 900 square-foot coffee shop (Starbucks Café) with relief from LAMC Commercial Corner provisions. The project is within the C2-1VL-CUGU Zone and located at 13100 and 13106 Paxton Street.

REQUESTED ACTIONS

The applicant is requesting a Density Bonus, resulting in a 1 percent density increase of the 244 base units otherwise permitted, with incentives for certain development standards to facilitate the development of the proposed project. The applicant's requests two off-menu incentives for increased Floor Area Ratio (FAR) and increased height as well as one waiver of development standards for Transitional Height requirement relief. As such, Staff has subsequently recommended that the project be approved with the incentives as follows:

a. An off-menu incentive to allow an increase in the Floor Area Ratio (FAR) to 2.322:1 in lieu of the otherwise allowable 1.5:1 in the [Q]C2-1 Zone;

b. An off-menu incentive to allow a building height of 70 feet in lieu of the 26-feet, 8-inches otherwise allowed; and

c. A waiver of development standards to allow relief from Transitional Height requirements pursuant to LAMC Section 12.21.1-A.10.

As detailed in the Findings, the requested incentives are required to provide for affordable housing costs. Adherence to code requirements for the height, floor area ratio, and transitional height would hinder the ability for the project to provide its proposed 28 units set aside for Very Low Income households. Due to the project's creation of more than 50 dwelling units, an entitlement for a Site Plan Review is also required.

Density Bonus / Affordable Housing Incentive Program

In accordance with California Government Code Section 65915 and LAMC Section 12.22 A,25, in exchange for setting aside a minimum percentage of the project's units for affordable housing, the project is eligible for a density bonus, reduction in parking, and incentives and waivers allowing for relief from development standards. The applicant has requested to utilize the provisions of City and State Density Bonus laws as follows:

Density

The subject property is zoned [Q]C2-1-CUGU, which limits density to one dwelling unit per 400 square feet of lot area. The subject property has a gross lot area of 97,453 square feet and, as such, the permitted base density on the subject property is 244 units.[1] In exchange for setting aside 28 units for Very Low Income household occupancy, or at least 11 percent of the total units, the applicant is entitled to a maximum 35 percent by-right density bonus to allow for 330 maximum dwelling units, although only 246 total dwelling units are proposed as part of the project.

Incentives

Pursuant to the LAMC and California Government Code Section 65915, the applicant is entitled to two incentives in exchange for reserving a minimum of 10 percent of the base density for Very Low Income households. The proposed project will set aside 28 units, which is equal to approximately 11 percent of the base number of units, for Very Low Income households. Accordingly, Staff has recommended that the project be granted three incentives as follows:

a. **Increased Floor Area Ratio** – The subject property is zoned [Q]C2-1. The property's commercial zoning and designation of Height District No. 1 permit a maximum FAR or 1.5 to 1, equal to a maximum of 146,180 square feet of total building area. Staff recommends that an off-menu incentive be granted to allow a maximum FAR of 2.322 to 1 to allow for the project which proposes a total of 226,260 square feet of floor area.

b. **Increased Height** – The subject property's C2-1 Zone and Qualified "Q" Condition permit a maximum height of 26-feet, 8-inches, and three (3) stories for a mixed-use development. The proposed development is seven (7) stories and 70 feet. Staff recommends that an off-

[1] Assembly Bill 2501 clarifies that density calculations that result in a fractional number are to be rounded up to the next whole number. This applies to base density, number of bonus units, and number of affordable units required to be eligible for the density bonus.

menu incentive be granted to allow a maximum seven (7) stories and height of 70 feet in lieu of the otherwise permitted three (3) stories and 26-feet, 8-inches pursuant to LAMC Section 12.21.1 and the property's zoning.

c. **Transitional Height Relief** – Based upon the project's proposed location adjacent to parcels zoned R1-1-CUGU, the project would need to observe transitional height requirements which range from 25 feet (within 0 to 49 feet of the R1 zoned parcel), 33 feet (within 50 to 99 feet of the R1 zoned parcel), and 61 feet (within 100-199 feet of the R1 zoned parcel), per LAMC Section 12.21.1. In order to develop the proposed housing development, including its 28 units reserved for Very Low Income household occupancy, the Applicant requests a waiver of development standards to allow relief from these requirements.

Housing Replacement

Pursuant to Government Code Section 65915(c)(3) and State Assembly Bills 2222 and 2556, applicants of Density Bonus projects filed as of January 1, 2015 must demonstrate compliance with the housing replacement provisions which require replacement of rental dwelling units that either exist at the time of application for a Density Bonus project, or have been vacated or demolished in the five-year period preceding the application of the project. This applies to all pre-existing units that have been subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of lower or very low income; subject to any other form or rent or price control; or occupied by Low or Very Low Income households. On October 8, 2024, the applicant provided a No Net Loss Declaration stating that the project does not result in any removal of any units, has not removed any units within the past five years, and has no units that were subject to an Ellis Act withdrawal within the past ten years. As such, there are no units that are subject to replacement pursuant to the requirements of SB 8.

PUBLIC HEARING

A public hearing on this matter was held by the Hearing Officer virtually on September 24, 2024 at 1:00 p.m. A summary of the public hearing and any additional communications is detailed on Page P-1, Public Hearing and Communications.

PROFESSIONAL VOLUNTEER PROGRAM

The proposed project was reviewed by the Urban Design Studio's Professional Volunteer Program (PVP) on August 6, 2024. The resulting comments and suggestions, detailed in the following section, Issues and Considerations, focus primarily on pedestrian friendliness and circulation, design of the primary façade (facing Glenoaks Boulevard) and the overall site planning.

ISSUES AND CONSIDERATIONS

The following includes a discussion of issues and considerations related to the project. These discussion points were either identified during the design review process with PVP, at the public hearing held on September 24, 2024, or in discussions with the applicant.

Various comments were raised during PVP regarding the project's overall pedestrian friendliness. One of the biggest concerns was that the first- and second-floor residential units would only have access from the street by walking over 225-feet from the sidewalk while passing a blank concrete wall, retail parking entrance and loading lock. PVP noted that the Density Bonus entitlement does not restrict design that much, but orientation toward the street is one of the requirements. It was also noted that the space allocated for the street-facing pedestrian lobbies were quite minimal, especially considering the far distance required for some of the upper floor residents to travel to retrieve their mail and parcels.

In response, the Applicant team stated that the site planning strategy seeks to prioritize the pedestrian and public activities of the site along Glenoaks Boulevard by utilizing the approximately 30,000 square-foot retail/market as the primary focus and maximizing opportunities for outdoor seating and dining areas. This is as opposed to a large residential lobby fronting the street, as most residents would be accessing their units from the parking level. The additional entry located on the north side of the building is not intended to be a main entry for the residents from Glenoaks Boulevard; rather, this ingress/egress location is intended to serve multiple purposes including parcel delivery, pick-up and drop-off for food, and passengers utilizing Uber, Doordash, Amazon, etc. The design intent is to place the more significant and pedestrian-oriented elements of the development toward the street, which the Applicant team believes to be the retail/market component. The overall frontage integrates a plaza at the retail/market measuring 60-feet wide and 20-feet in depth to promote pedestrian and public activities at the street level. The majority of residents will access their units via the parking garage with centrally located elevators. Nevertheless, supplemental entries have been provided at the street level. Due to the scale of the mixed-use project, the Applicant team stated that it is inevitable for some units to have longer travel distance from their lobbies.

Another topic raised frequently during PVP was the lack of clarity regarding the project's street-facing façade and its design elements. Members of PVP noted that the application of decorative elements, including what appeared to be perspectives of pyramids, as suggested on the elevations is unclear (e.g., what materials are being used and whether the proposed art would utilize tiles, paint, or other materials). PVP recommended early engagement with the Cultural Affairs Commission as they may consider the proposed decorative elements as murals which would require their approval. While many of PVP comments about design were addressed in the Applicant's revised plans (shared with staff October 31, 2024), the Applicant team also responded that the intent of the façade treatment is to utilize material and texture in an abstract way to create visual interest and scale across the building frontages. These elements are not intended to be murals or pictorial representations, but rather colored smooth stucco or similar architectural elements/materialization that allow for integration of color and texture. The Applicant team also confirmed that they would be engaged with the Cultural Affairs Commission especially because the project is preserving a mural which is subject to their approval.

PROJECT SUSTAINABILITY FEATURES

As shown in the attached plans (Exhibit A), the project will provide the required number of Electric Vehicle (EV) parking per the Building Code which results in the following: for the proposed residential parking, there will be 106 EV spaces, 24 EVCS, 1 Van Accessible EVCS, 1 standard Accessible EVCS, and 1 ambulatory EVCS; and for the proposed commercial parking, the project will provide 13 EV spaces, 2 EVCS, and 1 Van Accessible EVCs. The project plans also include areas carved out on the roof for solar panels as required by the Green Code as well as areas for mechanical units. The project features robust open space areas which will be extensively landscaped with native and drought-tolerant species as indicated on the project's landscape plans.

CONCLUSION

Based on the public hearing and information submitted to the record, staff recommends that the City Planning Commission find, based on its independent judgment, after consideration of the whole of the administrative record, that the project is categorically exempt from CEQA. Staff also recommends that the City Planning Commission approve the Density Bonus, with the requested Off-Menu Incentives and Waiver of Development Standards.

CONDITIONS OF APPROVAL

Pursuant to Sections 12.22-A.25 and 16.05 of the Los Angeles Municipal Code, the following conditions are hereby imposed upon the use of the subject property:

Development Conditions

1. **Site Development.** Except as modified herein, the project shall be in substantial conformance with the architectural plans, landscape plan, renderings, and materials submitted by the applicant, stamped "Exhibit A," and attached to the subject case file.

2. **Residential Density.** The project shall be limited to a maximum density of 246 dwelling units, inclusive of restricted affordable units.

3. **Affordable Units.**

   a. A minimum of 28 dwelling units, that is 11 percent of the base units, shall be designated as Restricted Affordable Units and reserved for Very Low Income households as defined by the State Density Bonus Law per Government Code Section 65915(c)(2).

   b. **Changes in Restricted Units.** Deviations that increase the number of restricted affordable units or that change the composition of units or change parking numbers shall be consistent with LAMC Section 12.22 A.25.

4. **Housing Requirements.** Prior to issuance of a building permit, the owner shall execute a covenant to the satisfaction of the Los Angeles Housing Department (LAHD) to make 11 percent of the site's base density units (28 units) available to Very Low Income households, for sale or rental as determined to be affordable to such households by LAHD for a period of 55 years. In the event the applicant reduces the proposed density of the project, the number of required reserved on-site Restricted Units may be adjusted, consistent with LAMC Section 12.22-A.25, to the satisfaction of LAHD, and in consideration of the project's No Net Loss Declaration dated October 8, 2024. Enforcement of the terms of said covenant shall be the responsibility of LAHD. The applicant shall present a copy of the recorded covenant to the Department of City Planning for inclusion in this file. The project shall comply with the Guidelines for the Affordable Housing Incentives Program adopted by the City Planning Commission and with any monitoring requirements established by the LAHD.

5. **Incentives.**

   a. **Floor Area Ratio (FAR).** A maximum Floor Area Ratio (FAR) of 2.322 to 1 may be permitted in lieu of the 1.5 to 1 otherwise permitted by the [Q]C2-1 Zone.

   b. **Height.** The project may have a maximum height of 70 feet and may rise to a height of seven (7) stories in lieu of the three (3) stories and 26-foot, 8-inch height limit otherwise required in the [Q]C2-1 Zone. The measured height of the building may exclude roof structures and equipment, pursuant to LAMC Section 12.21.1, and to the satisfaction of the Los Angeles Department of Building and Safety.

6. **Waivers of Development Standards.**

   a. **Transitional Height.** The project shall not be required to comply with Transitional Height requirements pursuant to LAMC Section 12.21.1.

7. **Parking.**

   a. **Automobile Parking.** The project may utilize either, or a combination of, Parking Option 1 or 2 pursuant to LAMC Section 12.22-A,25(d).

   b. **Bicycle Parking.** Bicycle parking shall be provided in compliance with the Municipal Code and to the satisfaction of the Department of Building and Safety. No variance from the bicycle parking requirements has been requested or granted herein.

   c. **Electric Vehicle Parking.** All electric vehicle charging spaces (EV Spaces) and electric vehicle charging stations (EVCS) shall comply with the regulations outlined in Sections 99.04.106 and 99.05.106 of Article9, Chapter IX of the LAMC.

8. **Construction Generators.** The project construction contractor shall use on-site electrical sources and solar generators to power equipment rather than diesel generators, where feasible.

9. **Circulation.** The applicant shall submit a parking area and driveway plan to the Los Angeles Department of Transportation (LADOT) for approval.

10. **Landscaping.** All open areas not used for buildings, driveways, parking areas, or walkways shall be attractively landscaped and maintained in accordance with a landscape plan and an automatic irrigation plan, prepared by a licensed Landscape Architect and to the satisfaction of the Department of City Planning.

11. **Solar Energy Infrastructure.** The project shall comply with the Los Angeles Municipal Green Building Code, Section 99.05.211, to the satisfaction of the Department of Building and Safety.

12. **Trash.** Trash receptacles shall be stored within a fully enclosed portion of the building at all times. Trash/recycling containers shall be locked when not in use and shall not be placed in or block access to required parking.

13. **Lighting.** Outdoor lighting shall be designed and installed with shielding, such that the light source does not illuminate adjacent residential properties or the public right-of-way, nor the above night skies.

14. **Mechanical Equipment.** All mechanical equipment on the roof shall be screened from view by any abutting properties. The transformer, if located in the front yard, shall be screened with landscaping and/or materials consistent with the building façade on all exposed sides.

15. **Street Trees.** Street trees shall be provided to the satisfaction of the Urban Forestry Division. Street trees may be used to satisfy on-site tree requirements pursuant to LAMC Article Section 12.21.G.3 (Chapter 1, Open Space Requirement for Six or More Residential Units).

Administrative Conditions

16. **Final Plans.** Prior to the issuance of any building permits for the project by the Department of Building and Safety, the applicant shall submit all final construction plans that are awaiting issuance of a building permit by the Department of Building and Safety for final review and approval by the Department of City Planning. All plans that are awaiting issuance of a building permit by the Department of Building and Safety shall be stamped by Department of City Planning staff “Final Plans”. A copy of the Final Plans, supplied by the applicant, shall be retained in the subject case file.

17. **Notations on Plans.** Plans submitted to the Department of Building and Safety, for the purpose of processing a building permit application shall include all of the Conditions of Approval herein attached as a cover sheet, and shall include any modifications or notations required herein.

18. **Building Plans.** A copy of the first page of this grant and all Conditions and/or any subsequent appeal of this grant and its resultant Conditions and/or letters of clarification shall be printed on the building plans submitted to the Development Services Center and the Department of Building and Safety for purposes of having a building permit issued.

19. **Corrective Conditions.** The authorized use shall be conducted at all times with due regard for the character of the surrounding district, and the right is reserved to the City Planning Commission, or the Director pursuant to Section 12.27.1 of the Municipal Code, to impose additional corrective conditions, if, in the Commission’s or Director’s opinion, such conditions are proven necessary for the protection of persons in the neighborhood or occupants of adjacent property.

20. **Approvals, Verification and Submittals.** Copies of any approvals, guarantees or verification of consultations, reviews or approval, plans, etc., as may be required by the subject conditions, shall be provided to the Department of City Planning for placement in the subject file.

21. **Code Compliance.** All area, height and use regulations of the zone classification of the subject property shall be complied with, except wherein these conditions explicitly allow otherwise.

22. **Department of Building and Safety.** The granting of this determination by the Director of Planning does not in any way indicate full compliance with applicable provisions of the Los Angeles Municipal Code Chapter IX (Building Code). Any corrections and/or modifications to plans made subsequent to this determination by a Department of Building and Safety Plan Check Engineer that affect any part of the exterior design or appearance of the project as approved by the Director, and which are deemed necessary by the Department of Building and Safety for Building Code compliance, shall require a referral of the revised plans back to the Department of City Planning for additional review and sign-off prior to the issuance of any permit in connection with those plans.

23. **Department of Water and Power.** Satisfactory arrangements shall be made with the Los Angeles Department of Water and Power (LADWP) for compliance with LADWP’s Rules Governing Water and Electric Service. Any corrections and/or modifications to plans made subsequent to this determination in order to accommodate changes to the project due to the under-grounding of utility lines, that are outside of substantial compliance or that affect any part of the exterior design or appearance of the project as approved by the Director, shall require a referral of the revised plans back to the Department of City Planning for

additional review and sign-off prior to the issuance of any permit in connection with those plans.

24. **Covenant.** Prior to the issuance of any permits relative to this matter, an agreement concerning all the information contained in these conditions shall be recorded in the County Recorder's Office. The agreement shall run with the land and shall be binding on any subsequent property owners, heirs or assign. The agreement must be submitted to the Department of City Planning for approval before being recorded. After recordation, a copy bearing the Recorder's number and date shall be provided to the Department of City Planning for attachment to the file.

25. **Definition.** Any agencies, public officials or legislation referenced in these conditions shall mean those agencies, public offices, legislation or their successors, designees or amendment to any legislation.

26. **Enforcement.** Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Department of City Planning and any designated agency, or the agency's successor and in accordance with any stated laws or regulations, or any amendments thereto.

27. **Expedited Processing Section.** Prior to the clearance of any conditions, the applicant shall show proof that all fees have been paid to the Department of City Planning, Expedited Processing Section.

28. **Indemnification and Reimbursement of Litigation Costs.**

Applicant shall do all of the following:

a. Defend, indemnify and hold harmless the City from any and all actions against the City relating to or arising out of, in whole or in part, the City's processing and approval of this entitlement, including but not limited to, an action to attack, challenge, set aside, void, or otherwise modify or annul the approval of the entitlement, the environmental review of the entitlement, or the approval of subsequent permit decisions, or to claim personal property damage, including from inverse condemnation or any other constitutional claim.

b. Reimburse the City for any and all costs incurred in defense of an action related to or arising out of, in whole or in part, the City's processing and approval of the entitlement, including but not limited to payment of all court costs and attorney's fees, costs of any judgments or awards against the City (including an award of attorney's fees), damages, and/or settlement costs.

c. Submit an initial deposit for the City's litigation costs to the City within 10 days' notice of the City tendering defense to the Applicant and requesting a deposit. The initial deposit shall be in an amount set by the City Attorney's Office, in its sole discretion, based on the nature and scope of action, but in no event shall the initial deposit be less than $50,000. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (b).

d. Submit supplemental deposits upon notice by the City. Supplemental deposits may be required in an increased amount from the initial deposit if found necessary by the City to protect the City's interests. The City's failure to notice or collect the deposit does not relieve the Applicant from responsibility to reimburse the City pursuant to the requirement in paragraph (b).

e. If the City determines it necessary to protect the City's interest, execute an indemnity and reimbursement agreement with the City under terms consistent with the requirements of this condition.

The City shall notify the applicant within a reasonable period of time of its receipt of any action and the City shall cooperate in the defense. If the City fails to notify the applicant of any claim, action, or proceeding in a reasonable time, or if the City fails to reasonably cooperate in the defense, the applicant shall not thereafter be responsible to defend, indemnify or hold harmless the City.

The City shall have the sole right to choose its counsel, including the City Attorney's office or outside counsel. At its sole discretion, the City may participate at its own expense in the defense of any action, but such participation shall not relieve the applicant of any obligation imposed by this condition. In the event the Applicant fails to comply with this condition, in whole or in part, the City may withdraw its defense of the action, void its approval of the entitlement, or take any other action. The City retains the right to make all decisions with respect to its representations in any legal proceeding, including its inherent right to abandon or settle litigation.

For purposes of this condition, the following definitions apply:

"City" shall be defined to include the City, its agents, officers, boards, commissions, committees, employees, and volunteers.

"Action" shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims, or lawsuits. Actions include actions, as defined herein, alleging failure to comply with any federal, state or local law.

Nothing in the definitions included in this paragraph are intended to limit the rights of the City or the obligations of the Applicant otherwise created by this condition.

FINDINGS

Density Bonus / Affordable Housing Incentives Compliance Findings

1. **Pursuant to Section 12.22-A.25(g)(2)(i)(c) of the LAMC and Section 65915(e) of the California Government Code, the Commission shall approve a density bonus and requested incentive(s) unless the Commission finds that:**

   a. **The incentives do not result in identifiable and actual cost reductions to provide for affordable housing costs, as defined in California Health and Safety Code Section 50052.5 or Section 50053 for rents for the affordable units.**

   The record does not contain substantial evidence that would allow the City Planning Commission to make a finding that the requested incentives do not result in identifiable and actual cost reductions to provide for affordable housing costs per State Law. The California Health & Safety Code Sections 50052.5 and 50053 define formulas for calculating affordable housing costs for Very Low, Low, and Moderate Income households. Section 50052.5 addresses owner-occupied housing and Section 50053 addresses rental households. Affordable housing costs are a calculation of residential rent or ownership pricing not to exceed 25 percent gross income based on area median income thresholds dependent on affordability levels.

   Based on the set-aside of 11 percent of the base density for Very Low Income households, the applicant is entitled to two incentives under both Government Code Section 65915 and the LAMC. Accordingly, the two (2) requests for increased floor area and increased height qualify as the proposed development incentives. The two requested incentives provide cost reductions that provide for affordable housing costs because the incentives by their nature increase the scale of the project, which facilitates the creation of more affordable housing units.

   Floor Area Ratio

   The subject property is zoned [Q]C2-1. The property's commercial zoning and designation of Height District No. 1 permit a maximum FAR or 1.5 to 1, equal to a maximum of 146,180 square feet of total building area. The applicant is requesting an off-menu incentive to allow a maximum FAR of 2.322 to 1 to accommodate the project which proposes a total of 226,260 square feet of floor area. The project includes a composition of 6 studio units, 157 one-bedroom units, 67 two-bedroom units, and 16 three-bedroom units.

   The requested increase in FAR will allow for the construction of affordable units in addition to larger-sized dwelling units. Granting of the incentive would result in a building design and construction efficiencies that provide for affordable housing costs. Furthermore, the incentive would enable the developer to expand the building envelope so that additional affordable units can be constructed and the overall space dedicated to residential uses is increased. The increased building envelope also ensures that all dwelling units are of a habitable size while providing a variety of unit types. This incentive supports the applicant's decision to set aside 28 dwelling units for Very Low Income households for 55 years.

   Height

   The subject property's [Q]C2-1 Zone permits a maximum height of 26 feet, 8 inches and three (3) stories for a mixed-use development as part of Condition No. A.2. of the Qualified

"Q" Condition. The proposed development consists of a seven-story building which will rise to 70 feet in height. As such, the applicant is requesting an off-menu incentive to allow for this increase in building height and stories in lieu of the otherwise permitted 26 feet, 8 inches and three (3) stories pursuant to LAMC Section 12.21.1 and Ordinance No. 174,830.

As proposed, the incentive will allow a total of approximately 44 feet of additional building height and will accommodate the construction of affordable units in addition to larger-sized dwelling units. Granting of the off-menu incentive would result in a building design and construction efficiencies that provide for affordable housing costs. The incentive would enable the developer to expand the building envelope so that additional affordable units can be constructed and the overall space dedicated to residential uses is increased. The increased building envelope also ensures that all dwelling units are of a habitable size while providing a variety of unit types. These incentives support the applicant's decision to set aside 28 dwelling units for Very Low Income households for 55 years.

b. **The incentives would have a specific adverse impact upon public health and safety or the physical environment or on any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact without rendering the development unaffordable to low-income and moderate-income households. Inconsistency with the zoning ordinance or the general plan land use designation shall not constitute a specific, adverse impact upon the public health or safety (Government Code Section 65915(d)(B) and 65589.5(d)).**

There is no substantial evidence in the record that any of the three proposed incentives will have a specific adverse impact upon public health and safety or the physical environment, or any real property that is listed in the California Register of Historical Resources. A "specific adverse impact" is defined as "a significant, quantifiable, direct and unavoidable impact, based on objective, identified written public health or safety standards, policies, or conditions as they existed on the date the application was deemed complete" (LAMC Section 12.22 A.25(b)).

The project does not involve a contributing structure in a designated Historic Preservation Overlay Zone or on the City of Los Angeles list of Historical-Cultural Monuments. The property is located within a High Wind Velocity Area but is not located within a Methane Zone, Special Grading Area, substandard street in a Hillside area, Flood Zone, Very High Fire Hazard Severity Zone, Alquist-Priolo Fault Zone, Landslide Zone, Liquefaction Zone, or any other special hazard area. Therefore, there is no substantial evidence that the proposed project, and thus the requested incentives, would have a specific adverse impact on the physical environment, on public health and safety or the physical environment, or on any Historical Resource. Based on the above, there is no basis to deny the requested incentives.

c. **The incentives are contrary to state or federal law.**

There is no substantial evidence in the record indicating that the requested Incentives are contrary to any State or federal laws.

2. ***Pursuant to Government Code Section 65915(e), the decision-maker shall grant requested density bonus and requested incentive(s) and waiver(s) unless the Commission finds that: The denial of a waiver[s] or reduction[s] of development standards that will not have the effect of physically precluding the construction of a***

development meeting the [affordable set-aside percentage] criteria of subdivision (b) at the densities or with the concessions or incentives permitted under the [State Density Bonus Law.] pursuant to" (Government Code Section 65915(e)(1)).

A project that qualifies for a density bonus or an incentive may request other "waiver[s] or reduction[s] of development standards that will have the effect of physically precluding the construction of a development meeting the [affordable set-aside percentage] criteria of subdivision (b) at the densities or with the concessions or incentives permitted under [State Density Bonus Law]" (Government Code Section 65915(e)(1)).

Transitional Height

Based upon the project's proposed location adjacent to parcels zoned R1-1-CUGU, the project would need to observe transitional height requirements which range from 25 feet (within 0 to 49 feet of the R1 zoned parcel), 33 feet (within 50 to 99 feet of the R1 zoned parcel), and 61 feet (within 100-199 feet of the R1 zoned parcel), per LAMC Section 12.21.1. In order to develop the proposed housing development, including its 28 units reserved for Very Low Income household occupancy, the Applicant requests a waiver of development standards to allow relief from these requirements.

As proposed, the granting of this waiver will allow for the construction of the affordable residential units given the quantity of units allowed under the density bonus and the building size granted under the two (2) requested off-menu incentives for increased FAR and increased overall height. Thus, the denial of the requested waiver will have the result of physically precluding one or more affordable units.

Site Plan Review Findings

3. **The project is in substantial conformance with the purposes, intent and provisions of the General Plan, applicable community plan, and any applicable specific plan.**

The Los Angeles General Plan sets forth goals, objectives, and policies that guide both Citywide and community specific land use policies. The General Plan is comprised of a range of State-mandated elements, including, but not limited to, Land Use, Housing, Transportation/Mobility, Noise, and Safety. Each of these Elements establishes policies that provide for the regulatory environment in managing the City and for addressing environmental concerns and problems. The majority of the policies derived from these Elements are in the form of Code Requirements of the Los Angeles Municipal Code. The City's Land Use Element is divided into 35 community plans that establish parameters for land use decisions within those sub-areas of the City. While the General Plan sets out a long-range vision and guide to future development, the 35 Community Plans provide the specific, neighborhood-level detail, relevant policies, and implementation strategies necessary to achieve the General Plan objectives. The project site is located in the Arleta – Pacoima Community Plan area and is not subjected to any applicable specific plans.

Arleta – Pacoima Community Plan

The subject property is located within the Arleta – Pacoima Community Plan which was updated by the City Council on November 6, 1996. The Arleta – Pacoima Community Plan designates the subject property for Neighborhood Office Commercial land uses with corresponding zones of C1.5, C4, C2, C1, CR, RAS3 and P(HD1VL). The subject property is zoned C2-1 and is thus consistent with its land use designation. The proposed project advances the following residential and commercial policies of the Community Plan:

On-site open space and usable recreation areas are encouraged.

For any particular development, the intensity of land use and the density of the population which can be accommodated thereon should be substantially limited in accordance with the following criteria: the adequacy of the existing and assured street circulation system, both within the area and in peripheral areas; the availability of public service facilities and public utilities; and the compatibility of proposed developments with existing adjacent developments.

The commercial lands (including associated parking) designated by this plan to serve suburban residential areas are proposed to be adequate in quantity to meet the needs of the population projected to the year 2010.

The proposed project furthers the development of the Arleta – Pacoima community by providing a safe, secure, and high-quality mixed-use residential environment for all economic, age, and ethnic segments of the Pacoima community and providing affordable housing by allowing for the development of a residential building with 246 dwelling units, including 28 units reserved for Very Low Income Households on lots zoned for commercial and residential uses. The project increases the housing stock and satisfies the needs and desires of all economic segments of the community by maximizing the opportunity for individual housing choice. The project does not request any reductions of the required amount of open space and provides a clear circulation plan as requested by Planning staff and provided in the project plans. The proposed mixed-use project is envisioned to contain a grocery store as its anchoring ground floor use which is a much-needed amenity for both the adjacent neighborhood and larger community. The subject property has been vacant for over a year, and the development of the project does not result in the displacement of any existing residential uses. Therefore, the project is consistent with the Arleta – Pacoima Community Plan.

The **Framework Element** for the General Plan (Framework Element) was adopted by the City of Los Angeles in December 1996 and re-adopted in August 2001. The Framework Element provides guidance regarding policy issues for the entire City of Los Angeles, including the project site. The Framework Element also sets forth a Citywide comprehensive long-range growth strategy and defines Citywide policies regarding such issues as land use, housing, urban form, neighborhood design, open space, economic development, transportation, infrastructure, and public services. The Framework Element includes the following goals, objectives, and policies relevant to the instant request:

Goal 3A: A physically balanced distribution of land uses that contributes towards and facilitates the City's long-term fiscal and economic viability, revitalization of economically depressed areas, conservation of existing residential neighborhoods, equitable distribution of public resources, conservation of natural resources, provision of adequate infrastructure and public services, reduction of traffic congestion and improvement of air quality, enhancement of recreation and open space opportunities, assurance of environmental justice and a healthful living environment, and achievement of the vision for a more livable city.

Objective 3.1: Accommodate a diversity of uses that support the needs of the City's existing and future residents, businesses, and visitors.

Policy 3.1.4: Accommodate new development in accordance with land use and density provisions of the General Plan Framework Long-Range Land Use Diagram.

Objective 3.4: Encourage new multi-family residential, retail commercial, and office development in the City's neighborhood districts, community, regional, and downtown centers as well as along primary transit corridors/boulevards, while at the same time conserving existing neighborhoods and related districts.

Policy 3.4.1: Conserve existing stable residential neighborhoods and lower-intensity commercial districts and encourage the majority of new commercial and mixed-use (integrated commercial and residential) development to be located (a) in a network of neighborhood districts, community, regional, and downtown centers, (b) in proximity to rail and bus transit stations and corridors, and (c) along the City's major boulevards, referred to as districts, centers, and mixed-use boulevards, in accordance with the Framework Long-Range Land Use Diagram.

The proposed project will result in the development of a mixed-use residential building that will provide 246 new dwelling units, including 28 units reserved for Very Low Income Households, thereby contributing toward and facilitating the City’s long-term economic viability and vision for a more livable city. The property is currently vacant and situated along Glenoaks Boulevard, a major thoroughfare that abuts the 118 Freeway but also connects various commercial, institutional, and recreational uses within the Pacoima community. Glenoaks Boulevard is especially important in the project site area as the northern portion of Pacoima is otherwise developed with single-family residences and without many areas zoned for commercial uses. The development of the site will enable the City to conserve nearby existing stable residential neighborhoods and lower-intensity commercial districts by allowing controlled growth away from such neighborhoods and districts on commercially zoned lots designated for such uses. Therefore, the proposed 246-unit residential building is consistent with the Distribution of Land Use goals, objectives, and policies of the General Plan Framework Element.

The **Housing Element** is the City’s blueprint for meeting housing and growth challenges. It identifies the City’s housing conditions and needs, establishes goals, objectives, and policies to guide future housing decisions, and provides an array of programs to meet Citywide Housing Priorities, including addressing the housing shortage, advancing racial equity and access to opportunity, preventing displacement, and promoting sustainability and resilience. The Housing Element includes the following objectives and policies relevant to the instant request:

Goal 1: A City where housing production results in an ample supply of housing to create more equitable and affordable options that meet existing and projected needs.

Objective 1.1*:* Forecast and plan for existing and projected housing needs over time with the intention of furthering Citywide Housing Priorities.

Policy 1.1.2: Plan for appropriate land use designations and density to accommodate an ample supply of housing units by type, cost, and size within the City to meet housing needs, according to Citywide Housing Priorities and the City’s General Plan.

Objective 1.2*:* Facilitate the production of housing, especially projects that include Affordable Housing and/or meet Citywide Housing Priorities.

Policy 1.2.1: Expand rental and for-sale housing for people of all income levels. Prioritize housing developments that result in a net gain of Affordable Housing and serve those with the greatest needs.

Policy 1.2.2: Facilitate the construction of a range of different housing types that addresses the particular needs of the city's diverse households.

Objective 1.3*:* Promote a more equitable distribution of affordable housing opportunities throughout the city, with a focus on increasing Affordable Housing in Higher Opportunity Areas and in ways that further Citywide Housing Priorities.

Policy 1.3.1: Prioritize housing capacity, resources, policies and incentives to include Affordable Housing in residential development, particularly near transit, jobs, and in Higher Opportunity Areas.

Policy 1.3.2: Prioritize the development of new Affordable Housing in all communities, particularly those that currently have fewer Affordable units.

Goal 3*:* A City in which housing creates healthy, livable, sustainable, and resilient communities that improve the lives of all Angelenos.

Policy 3.1.7: Promote complete neighborhoods by planning for housing that includes open space, and other amenities.

Objective 3.2: Promote environmentally sustainable buildings and land use patterns that support a mix of uses, housing for various income levels and provide access to jobs, amenities, services and transportation options.

Policy 3.2.2: Promote new multi-family housing, particularly Affordable and mixed-income housing, in areas near transit, jobs and Higher Opportunity Areas, in order to facilitate a better jobs-housing balance, help shorten commutes, and reduce greenhouse gas emissions.

The proposed project implements the Housing Element by increasing the housing supply consistent with the General Commercial land use designation. The property is currently improved with a commercial building which has been vacant for over a year. The approval of the request would permit 246 new dwelling units with 28 units set aside for Very Low Income Households. The project would achieve the production of new housing opportunities, meeting the needs of the city, while facilitating the construction of a range of different housing types (studios, one-, two-, and three-bedroom units) that address the needs of the city's diverse households. The project would not result in the displacement or demolition of any existing residential units and would provide ample open space and comply with the most recent sustainability best practices. Therefore, the project is consistent with the Housing Element goals, objectives and policies of the General Plan.

As such, the project is in substantial conformance with the purposes, intent and provisions of the General Plan and does not conflict with any applicable regulations or standards.

4. **The project consists of an arrangement of buildings and structures (including height, bulk and setbacks), off-street parking facilities, loading areas, lighting, landscaping, trash collection, and other such pertinent improvements, that is or will be compatible with existing and future development on adjacent properties and neighboring properties.**

The project site consists of 4 parcels tied into a single lot encompassing a total surface area of approximately 97,453 square feet, or 2.24 acres. The subject property is rectangular shaped and features approximately 225 feet of street frontage along the westerly side of

Glenoaks Boulevard as well as a depth of approximately 455 feet.

The project site is located in the Arleta – Pacoima Community Plan area and the project site is zoned [Q]C2-1-CUGU which corresponds with the site's Neighborhood Office Commercial General Plan land use designation. The site is currently developed with a commercial building and surface parking lot which was operating as a DMV office until it was vacated on September 30, 2023. These improvements are proposed to be demolished as part of the proposed project.

Properties to the north are zoned C2-1-CUGU and P-1-CUGU and are developed with a school, commercial strip mall, and church. Properties to the east, across Glenoaks Boulevard, are zoned R1-1-CUGU and are developed with single-family residences. Properties directly adjacent to the west are also zoned R1-1-CUGU and developed with single-family homes, but properties farther west across De Garmo Avenue are zoned PF-1VL-CUGU and is improved as a school. The 118 Ronald Reagan Freeway, zoned PF-1XL-CUGU, directly abuts the project site to the south. Farther south, across the freeway, properties are zoned R1-1-CUGU, [Q]P-1VL-CUGU, and [Q]C2-1VL-CUGU and are developed with single-family residences and retail commercial uses.

The proposed project involves the demolition of existing improvements and the construction, use, and maintenance of a 7 story, 70-foot mixed-use building including 246 residential units, of which 28 units (11 percent) will be set aside for Very Low Income Household occupancy, and 28,302 square feet of ground floor commercial. The proposed project would encompass 226,260 square feet of total building area which equates to a Floor Area Ratio of approximately 2.23 to 1. The project proposes to provide 318 parking spaces within 2 subterranean levels as well as 264 long-term and 28 short-term bicycle spaces.

<u>Height, Bulk, and Setbacks</u>

In exchange for the provision of 28 dwelling units set aside for Very Low Income household occupancy, the project is granted off-menu incentives and a waiver of development standards pertaining to increased FAR, increased height, and relief from transitional height requirements. The subject property encompasses a combined site area of 97,453 square feet. With the proposed off-menu incentive for increased FAR up to 3.322:1, the project would be permitted to build 226,343 square feet of floor area. The proposed project would span a total floor area of 226,260 square feet which complies with the 3.322:1 FAR limit. Regarding height, the project is requesting an off-menu incentive to allow an increase in allowable height up to 70-feet, in lieu of the 28-feet, 6-inches otherwise allowed, and a waiver of development standards for relief from transitional height requirements per the LAMC.

The scale, massing, and location of the project respond to the unique circumstances of the site as well as the surrounding urban context. The project occupies a large, flat site that is bounded on one side (southern) by a freeway ramp (118 Freeway). While the front of the site faces a public street, the rear and northern side abut smaller scale residential and commercial uses. As such, the project was designed to be located with most of the massing facing Glenoaks Boulevard while the scale and intensity of the project reduce towards the rear where robust open space areas and driveways would be located. The project's ground-floor commercial use, which is anticipated to be a market, would feature an inviting retail storefront facing Glenoaks Boulevard. Decorative elements of the front façade which include a mix of various colors and textures have been incorporated into the front façade to help create visual interest while creating a sense of depth and breaking up the perceived massing. The proposed building's mixture of height, material, and color will create articulation and visual interest that is appropriately scaled to the surrounding commercial and residential neighborhoods and primarily focuses on the ground-floor retail component as an anchor of the project. A majority of the proposed development fronts Glenoaks Boulevard, a major thoroughfare, where appropriate ground floor activation would be provided in addition to various vertical and horizontal architectural elements to reduce the overall massing of the project. The architecture of the proposed project is high-quality and thoughtfully scaled to be compatible with the surrounding context.

Regarding setbacks, the proposed project is compliant with the required setbacks per the underlying [Q]C2-1-CUGU Zone. The project is entitled to a zero-foot front yard, 10-foot side yards, and a 19-foot rear yard. The subject property has a designated front yard facing Glenoaks Boulevard and a rear yard fronting Eustace Street and De Garmo Avenue. The proposed project would observe a 2-foot, 8.5-inch front yard setback and a 71-foot, 4-inch rear yard setback. The project would observe a 14-foot, 8-inch southern side yard setback and a 34-foot northern side yard setback. As such, the project does not maximize its allowable building coverage so as to create buffers with neighboring uses and to reduce the overall bulk of the project. Furthermore, the yards comply with the setback requirements of the zone.

<u>Off-Street Parking Facilities and Loading Areas</u>

The project would provide 318 total on-site parking spaces within two subterranean levels which would separate the project’s residential and commercial parking. The project’s proposed subterranean parking would be accessible from entrances along the northern driveway (commercial parking, fire road, and loading areas) and driveway located in the rear (residential parking only) and would be constructed to the satisfaction of the Los Angeles Department of Transportation (LADOT) and the Los Angeles Department of Building and Safety (LADBS). Required bicycle parking would be provided pursuant to the City’s Bicycle Ordinance, with 264 long-term bicycle spaces and 28 short-term spaces provided throughout the site. Bicycle parking is located on the first basement level and ground floor level. As such, the proposed parking facilities and loading areas would all be either located away from the public street or located underground, away from view of the public right-of-way.

<u>Lighting</u>

Lighting is required to be provided per LAMC requirements. The project proposes security lighting to illuminate buildings, entrances, walkways and parking areas. As conditioned, the project is required to provide outdoor lighting with shielding, so that the light source cannot be seen from and will not adversely affect adjacent residential properties. Therefore, the lighting will be compatible with the existing and future developments in the neighborhood.

<u>Landscaping</u>

The project, as proposed, is required to provide 27,475 square feet of open space, but will provide approximately 34,045 square feet of open space, including 31,245 square feet of common open space (6,182 square feet on the ground floor, 20,733 square feet on the third floor, and 4,330 square feet on the seventh floor) and private balconies along residential levels 3 through 7 which range from 500 square feet to 750 square feet in size.. There are at least five street trees along Glenoaks Boulevard, all of which will be retained and protected in place. Development of the project would not require the removal of any protected trees and 62 new trees would be planted on-site. Landscaping would be provided at the ground level in the pedestrian plaza areas as well as throughout the project’s 3rd floor deck. Additional street trees will be provided as required by the Bureau of Engineering. The landscape design has been developed in a manner which includes a variety of drought-tolerant and native species appropriate for the Southern California climate. Details are provided in Exhibit A demonstrating the project’s landscape plan which will ensure that appropriate plant species and compliant soil depths are incorporated. The project has further been conditioned to utilize automatic irrigation systems to maintain landscaped areas and ensure that all open areas not used for buildings, driveways, parking areas, recreational facilities or walks are adequately landscaped.

Trash Collection

The project proposes to provide trash and recycling areas within the enclosed parking areas. The trash collection area will be centrally located within the main building and within the basement levels. Separate trash and recycling facilities are provided for the residents and for the commercial uses. The project includes centralized trash chutes for residents on each floor of the building. All trash facilities will be secured and not within view from the public right-of-way.

Sustainability

The project has been conditioned to comply with the Green Building Code and, as such, will provide requisite area on the roof to be utilized for future solar panels. As shown in the attached plans (Exhibit A), the project will provide the required number of Electric Vehicle (EV) parking per the Building Code which results in the following: for the proposed residential parking, there will be 106 EV spaces, 24 EVCS, 1 Van Accessible EVCS, 1 standard Accessible EVCS, and 1 ambulatory EVCS; and for the proposed commercial parking, the project will provide 13 EV spaces, 2 EVCS, and 1 Van Accessible EVCs. The project plans also include areas carved out on the roof for solar panels as required by the Green Code as well as areas for mechanical units. The project features robust open space areas which will be extensively landscaped with native and drought-tolerant species as indicated on the project's landscape plans. The electric vehicle charging spaces and solar panels will improve habitability for residents and neighboring properties by reducing the level of greenhouse gas emissions and fuel consumption from the project site by providing convenient facilities for low or zero emission vehicles.

5. **Any residential project provides recreational and service amenities to improve habitability for its residents and minimize impacts on neighboring properties.**

   The project proposes 246 total dwelling units including 6 studios, 157 one-bedroom units, 67 two-bedroom units, and 16 three-bedroom units. The project proposes a total of 318 parking spaces which would be unbundled and shared among all the uses on the site. Pursuant to LAMC Section 12.21 G, the Project would be required to provide 27,475 square feet of usable open space. The proposed project would provide a total of 34,045 square feet of qualifying common open space, as defined by the Los Angeles Municipal Code, including 31,245 square feet of common open space (6,182 square feet on the ground floor, 20,733 square feet on the third floor, and 4,330 square feet on the seventh floor) and private balconies along residential levels 3 through 7 which range from 500 square feet to 750 square feet in size.. The project features a major commercial/market component on the ground floor facing Glenoaks Boulevard and extensive landscaping along each façade of the building. Each of the proposed setbacks, ranging from two (2) to 72 feet, are landscaped with shade-producing trees and extensive ground cover, along with the street trees which will be added as permitted by Urban Forestry. The open space areas will include programming and amenities as well as special paving to make them easily distinguishable. As proposed, the project would provide recreational and service amenities, including landscaped courtyards, patios, roof decks, indoor and outdoor recreational areas, and ground-floor commercial amenities which would improve habitability for its residents and minimize impacts on neighboring properties.

Environmental Findings

6. **CEQA.** The proposed project qualifies for a Class 32 Categorical Exemption because it conforms to the definition of “In-fill Projects”. The project can be characterized as in-fill development within urban areas for the purpose of qualifying for Class 32 Categorical Exemption as a result of meeting five established conditions and if it is not subject to an Exception that would disqualify it. The Categorical Exception document attached to the subject case file provides the full analysis and justification for project conformance with the definition of a Class 32 Categorical Exemption.

6. **Flood Insurance.** The National Flood Insurance Program rate maps, which are a part of the Flood Hazard Management Specific Plan adopted by the City Council by Ordinance No. 172,081, have been reviewed and it has been determined that this project is located in Zone X, areas of minimal flood hazard.

PUBLIC HEARING AND COMMUNICATIONS

A public hearing for Case No. CPC-2024-3390-DB-PR-VHCA was held virtually by the Hearing Officer on Tuesday, September 24, 2024, at 1:00 p.m. The purpose of the hearing was to receive public testimony on behalf of the City Planning Commission as the decisionmaker of the case.

There were approximately seven (7) people in attendance, including three (3) members from the applicant's team and a representative from Council District 7. There were three (3) additional written correspondences received outside of the public hearing which are included as Exhibit D. The Hearing Officer hearing is summarized below.

- The project Representative, Henry Harutunyan, made a presentation providing an overview of the project site and requested entitlements. They stated that the site abuts the 118 freeway, schools, commercial uses, and single-family residences. The site is currently improved with a 60,000-square-foot existing DMV office which has been vacant since September of 2023. For the proposed project, the Applicant is requesting two off-menu incentives for height and FAR as well as one waiver of development standards for transitional height relief.

- The proposed project would be anchored by a commercial space on the ground floor intended for a grocery store. The project proposes to include 262 residential parking spaces, of which 80 parking spaces would be EV, and 58 commercial parking spaces, of which 18 spaces would be EV. The Representative stated that the current design is improved much more than before due to comments from the Planning Department as well as Council District 7 involvement.

- The proposed project features a mural which is from the current existing building and will be preserved as it was previously approved by the Arts Commission. The proposed project will feature an additional new mural which will similarly be subject to approval by the Arts Commission.

- Will Dahlin, a representative with Council District 7, participated in the hearing but only to listen and observe the Applicant's presentation.

- Fidel Ramirez, an executive officer for LAUSD which owns the nearby Vaughan school (and whose Charter owns 3 or 4 other schools) stated that Vaughan is a Blue Ribbon distinguished school and asked the developer to collaborate with LAUSD during the design and review phases.

- Yvonne Chan, a principal of a nearby school, stated that many students are high achieving but from low-income families. They requested an increase in the number of low income residential units. They stated that Councilmember Monica Rodriguez was a former student and that their school has had LADWP rebuild previously existing power poles. They stated that their schools have various on-site social services, medical services, and community events.

- Claudia Flores, a Vaughan school administrator, stated that their school is a strong community partner and that the proposed project will have both positive and negative impacts, so they want to ensure collaboration with the developer.

In addition to the public comments provided, Staff asked questions regarding the project's site planning, landscaping, and pedestrian accessibility. A summary of the responses provided by the Applicant team is as follows:

- Christopher Pak, with the project's architecture team, stated that the Applicant, Kevin B, has spoken to Yvonne extensively and is considering expanding the number of affordable units. The programming of the project is mostly one- to three-bedrooms in response to Council District 7 to provide units for families. They stated that during construction, the applicant team will collaborate with nearby schools to prevent obstructing activities.

- Brandon Welling, also with the project's architecture team, stated that there will be a delineated area (shown in reddish color on the plans on the north) for the fire road and loading area for pick-ups and deliveries. The driveway in the rear will be for residential parking only. Pedestrians will use the northern entry as well as two supplemental entries flanking the proposed ground floor grocery store entrance. Bicycle racks are also proposed at these locations. The Applicant team made an effort to include different paving and landscaping to differentiate the various entries. They stated that they will ensure these pathways are well-lit and pedestrian friendly.

- The Applicant team stated that the landscape plan is still being worked on, but that plant and tree species that provide shade cover and are native/drought-tolerant will be provided. With regard to sustainability, the project includes provisions for solar panels which still need to be verified. The project will be fully electric (no gas) and the landscaping will consider water retention. The owner is invested personally in the project as they do not intend to sell it to other developers.

EXHIBIT A

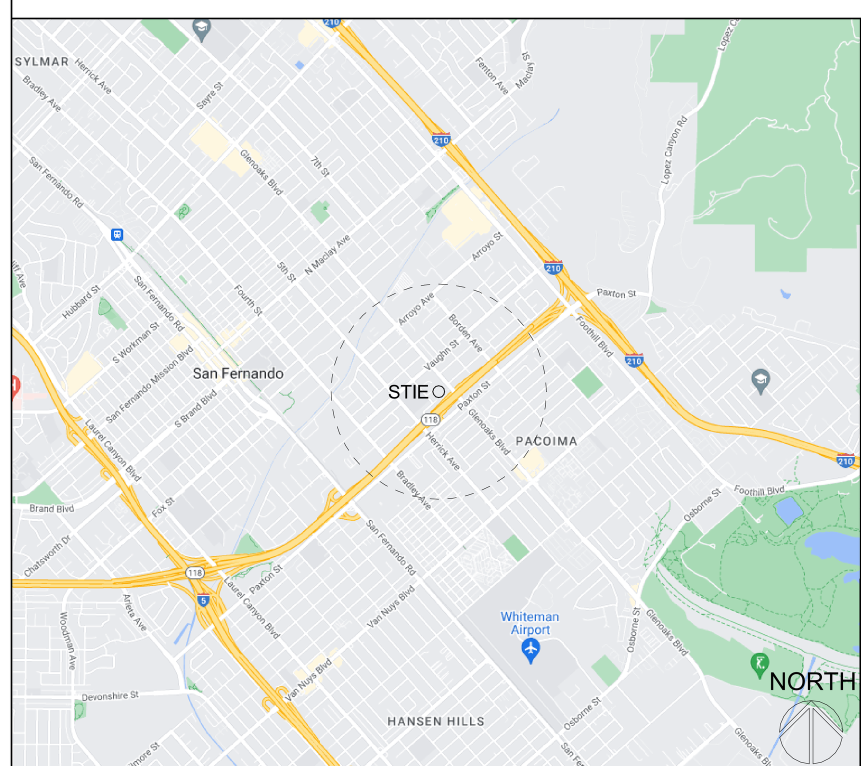
Plans

Site Plan, Floor Plans, Elevations, Landscape Plan, and Renderings

11623 GLENOAKS BLVD

246 UNIT NEW APARTMENTS

PROJECT RENDERING



VICINITY MAP

<u>APPLICABLE CODES:</u>

[2022 BUILDING STANDARDS ADMINISTRATIVE CODE
2022 CALIFORNIA BUILDING CODE (CBC)
2022 CALIFORNIA ELECTRICAL CODE (CEC)
2022 CALIFORNIA MECHANICAL CODE (CMC)
2022 CALIFORNIA PLUMBING CODE (CPC)
2022 CALIFORNIA ENERGY CODE
2022 CALIFORNIA FIRE CODE
2023 CALIFORNIA GREEN BUILDING STANDARD CODE
2023 LOS ANGELES BUILDING CODE (LABC)
2023 LOS ANGELES GREEN BUILDING CODE (LAGBC)
2020 LOS ANGELES MUNICIPAL CODE (LAMC)
ALL OTHER APPLICABLE CITY AND COUNTY LAWS AND ORDINANCES]

ALL CODES ARE AS AMENDED BY THE **STATE OF CALIFORNIA** AND THE **CITY OF LOS ANGELES**

APPLICABLE CODES

ARCHITECT:
MORPHOSIS ARCHITECTS
3440 WESLEY ST
CULVER CITY, CA 90232

OWNER:
118, LP.
3121 STANFORD AVE,
VENICE, CA 90292

TEAM DIRECTORY

DENSITY BONUS ANALYSIS

1. DENSITY BONUS PROGRAM WITH OFF-MENU INCENTIVES (AB2334)

<u>INCENTIVES</u>

1. OFF MENU - BUILDING HEIGHT INCREASE TO 70'-0" IN LIEU OF 28'-6" MAXIMUM FROM [Q] CONDITION
2. OFF MENU - FAR INCREASE TO 2.322 : 1 IN LIEU OF 1.5 : 1

<u>WAIVERS OF DEVELOPMENT STANDARDS</u>

1. TRANSITIONAL HEIGHT DELIMITATION REMOVAL FROM MORE RESTRICTIVE R1 ZONE
2. REMOVAL OF REQUIREMENT FOR A MINIMUM OF 127 COMMERCIAL PARKING SPACES FROM [Q] CONDITION

PLANNING ENTITLEMENT

OPEN SPACE REQUIRED

UNIT TYPE	COUNT	FACTOR	AREA
STUDIO	6	100	600 SF
1 BED	157	100	15,700 SF
2 BED	67	125	6,700 SF
3 BED	16	175	2,000 SF
TOTAL			**27,475 SF**

OPEN SPACE PROVIDED (LAMC SECTION 12.21 G 2)

LEVEL	TYPE	AREA
GROUND FLOOR	OUTDOOR AREA	6,182 SF
LEVEL 3	OUTDOOR AREA	20,733 SF
	BALCONY (13 EA X 50 SF)	650 SF
LEVEL 4	BALCONY (31 EA X 50 SF)	550 SF
LEVEL 5	BALCONY (31 EA X 50 SF)	550 SF
LEVEL 6	BALCONY (31 EA X 50 SF)	550 SF
LEVEL 7	OUTDOOR AREA	4,330 SF
	BALCONY (28 EA X 50 SF)	500 SF
TOTAL		**34,045 SF**

REQUIRED # OF TREES : 62 (1 PER 4 UNITS, 246 TOTAL UNIT)
PROVIDED # OF TREES : 62

OPEN SPACE / LANDSCAPE

7-STORY 246 UNIT APARTMENT WITH 28 VERY LOW INCOME UNITS (11%)

A. 100% PRIVATELY FUNDED
B. NOT A PUBLIC HOUSING
C. NO TAX CREDIT RECEIVE
D. AFFORDABLE HOUSING INCENTIVES (LAMC 12.22.A.25)

<u>BASE INCENTIVE / ON MENU</u>
1. PARKING REDUCTION
- PARKING REDUCTION PER LAMC 12.22.A.25(d), AB2345 / 1763

SCOPE OF WORK

OCCUPANCY GROUP : S-2 (BASEMENT 2 - 1)
R-2, A-3, M (GROUND FLOOR)
R-2 (LEVEL 2 - LEVEL 7)

TYPES OF CONSTRUCTION :

TYPE I-A : I-A (BASEMENT2 TO LEVEL 2)
TYPE III-A : III-A (LEVEL 3 TO LEVEL 7)

<u>BUILDING HEIGHT:</u>

MAX. BUILDING HEIGHT :

BY BUILDING CODE = M, R-2 : UNLIMITED (TYPE I-A)
R-2 : 85' / 5 STORIES (TYPE III-A)

BY ZONING CODE = 26'-8" MAX.(PER [Q]CONDITION)

PROPOSED BUILDING HEIGHT :

BY BUILDING CODE = M, R-2 : 19' - 0" / 2 STORIES (TYPE I-A)
R-2 : 47' - 6" / 5 STORIES (TYPE III-A)
TOTAL : 66'-6" / 7 STORIES

BY ZONING CODE = 70'-0" / 7 STORIES

<u>BUILDING FLOOR AREA :</u>
ALLOWABLE MAXIMUM BUILDING AREA (CBC 506.2.4) :

BASEMENT - GROUND FLOOR : R-2, A-3 TYPE I-A = UNLIMITED
2ND - 6TH FLOOR : R-2, TYPE III-A = 72,000 SF

BUILDING AREA

LEVEL	TYPE	OCC.		AREA
BASEMENT 2	S-2	I-A		70,231 SF
BASEMENT 1	S-2			83,679 SF
GROUND FLOOR	R-2			17,593 SF
	A-3			1,619 SF
	M			27,985 SF
LEVEL 2	R-2			18,446 SF
LEVEL 3		III-A	AREA A	16,818 SF
			AREA B	16,818 SF
LEVEL 4 - LEVEL 6			AREA A	16,866 SF
			AREA B	16,866 SF
LEVEL 7			AREA A	14,720 SF
			AREA B	14,720 SF
TOTAL				**383,825 SF**

TOTAL AREA PER BUILDING TYPE	TYPE I-A	219,553 SF
	TYPE III-A	164,272 SF
TOTAL AREA PER BUILDING SEPARATION	AREA A	82,136 SF
	AREA B	82,136 SF

FIRE SPRINKLER :

FULLY AUTOMATIC SPRINKLERS THROUGHOUT THIS BUILDING TO COMPLY WITH NFPA-13 (CBC 903.3.1.1), THE SPRINKLER SYSTEM SHALL BE APPROVED BY PLUMBING DIVISION PRIOR TO INSTALLATION

FIRE ALARM :

MANUAL ALARM SYSTEM WITH THE CAPABILITY TO SUPPORT VISIBLE ALARM NOTIFICATION APPLIANCES IN ACCORDANCE WITH NFPA-13

RADIO COMMUNICATION SYSTEM :

TWO-WAY RADIO COMMUNICATION SYSTEM PROVIDED PER L.A.F.C. 510
A. TO BE PROVIDED AT ALL ELEVATOR LANDINGS IN ACCORDANCE WITH CBC SECTION 1009.8.

BUILDING INFORMATION

CURRENT ADDRESS : 11623 N GLENOAKS BLVD
PACOIMA, CA 91331

LEGAL DESCRIPTION

APN : 2524023014, 2524023021,
2524023003, 2524023023
LOT : PT 162
TRACT : THE MACLAY RANCHO

ZONING : [Q] C2-1-CUGU
LOT AREA : 97,453.3 SF
GENERAL PLAN LAND USE : NEIGHBORHOOD OFFICE COMMERCIAL

GENERAL PLAN NOTES : YES
SPECIFIC PLAN AREA : N/A

HISTORIC PRESERVATION REVIEW : NO
VERY HIGH FIRE HAZARD : NO
METHANE HARZARD SITE: NO
FIRE DISTRICT 1: NO

SITE INFORMATION

DENSITY :

LOT AREA FOR DENSITY : 97,453.3 SF
MIN. LOT AREA PER UNIT : 400 SF ([Q]C2-1-CUGU)
ALLOWABLE # OF UNITS : 244 (97,453.3/400) + 86 (35%, BONUS) = 330
PROVIDED # OF UNITS : 246

REQUIRED YARDS ([Q]C2-1-CUGU)

LEVEL	REQUIRED (FT)	PROVIDED (FT)
FRONT YARD	N/A	2'-4"
SIDE YARD	10'-0" (3' + 1FT FOR EACH STORY OVER 2ND)	14'-8" / 34'-0"
REAR YARD	19'-0" (15' + 1FT FOR EACH STORY OVER 3RD)	71'-4"

HEIGHT / STORY / FAR ([Q]C2-1-CUGU)

	MAX ALLOWED	PROVIDED
HEIGHT	26'-8" PER [Q] CONDITION	70'-0"
STORY	N/A	7
BUILDABLE AREA	97,453.3 SF	-
BASE FAR	146,180 SF (1 : 1.5)	-
MAX FAR	226,343 SF (35% AFF. FAR BOUNS + 29,000 SF ADD.)	226,260 SF

ZONING AREA

LEVEL	RESIDENTIAL	COMMERCIAL
BASEMENT 2	1,048 SF	-
BASEMENT 1	1,724 SF	826 SF
GROUND FLOOR	19,165 SF	27,476 SF
LEVEL 2	17,966 SF	-
LEVEL 3	32,390 SF	-
LEVEL 4	32,294 SF	-
LEVEL 5	32,294 SF	-
LEVEL 6	32,294 SF	-
LEVEL 7	28,204 SF	-
SUB TOTAL	197,379 SF	28,302 SF
TOTAL	225,681 SF	

UNIT MIX

LEVEL	STUDIO	1 BED	2 BED	3 BED	TOTAL
GROUND FLOOR	2	3	13	0	18
LEVEL 2	4	4	14	0	22
LEVEL 3	0	32	6	4	42
LEVEL 4	0	30	8	4	42
LEVEL 5	0	30	8	4	42
LEVEL 6	0	30	8	4	42
LEVEL 7	0	30	8	0	38
TOTAL	6	157	67	16	246

ZONING INFORMATION

RESIDENTIAL

VEHICLE PARKING

	TYPE	COUNT	REQ PER UNIT	TOTAL
REQUIRED	STUDIO	6	1 SPACE / UNIT	6 SPACE
	1 BED	157	1 SPACE / UNIT	157 SPACE
	2 BED	67	1.5 SPACE / UNIT	101 SPACE
	3 BED	16	1.5 SPACE / UNIT	24 SPACE
	(MIN. [Q] CONDITION REQUIREMENT)			(127 SPACE)
	TOTAL REQUIRED BY RIGHT			288 SPACE
	10% REDUCTION PER 12.21.A.4			28 SPACE
	TOTAL REQUIRED WITH REDUCTION			260 SPACE
PROVIDED	253 STANDARD PARKING 3 STANDARD ACCESSIBLE PARKING 1 VAN ACC. PARKING 1 VAN ACC. EVCS 1 STANDARD EVCS 1 AMBULATORY EVCS <u>TOTAL : 260 PROVIDED</u> *NO GUEST PARKING REQUIRED, PROVIDED			

EV PARKING

REQUIRED	105 EV SPACE (262 PARKING X 40%) 27 EVCS (262 PARKING X 10%) (W/ 1 VAN ACC, 1 STANDARD ACC, 1 AMBULATORY) *PER 2022 CALIFORNIA GREEN CODE 4.106.4.2.2
PROVIDED	106 EV SPACE (24 EVCS, 1 VAN ACCESSIBLE EVCS, 1 STANDARD ACCESSIBLECC EVCS, 1 AMBULATORY EVCS)

ROUNDING - IF THE TOTAL NUMBER OF PARKING SPACES REQUIRED FOR A DEVELOPMENT IS OTHER THAN A WHOLE NUMBER, THE NUMBER SHALL BE ROUNDED UP TO THE NEXT WHOLE NUMBER.

BICYCLE PARKING

LONG TERM	REQUIRED	136 (PER LAMC, SECTION 12.21 A16)
		248 (AFTER PARKING REDUCTION)
	PROVIDED	248 (BASEMENT)
SHORT TERM	REQUIRED	14 (PER LAMC, SECTION 12.21 A16)
	PROVIDED	14 (GROUND FLOOR)

COMMERCIAL

VEHICLE PARKING

	TYPE	REQ PER UNIT	TOTAL
REQUIRED	28,302 SF	1 PER 500 SF	57 SPACE
	TOTAL REQUIRED BY RIGHT		57 SPACE
PROVIDED	54 STANDARD PARKING 1 STANDARD ACCESSIBLE PARKING 1 VAN ACCESSIBLE PARKING 1 VAN ACCESSIBLE EVCS <u>TOTAL : 58 PROVIDED</u> *NO GUEST PARKING REQUIRED, PROVIDED		

EV PARKING

REQUIRED	13 EV SPACE (51-75 TOTAL PARKING STALL) 3 EVCS (51-75 TOTAL PARKING STALL), (W/ 1 VAN ACC) *PER 2022 CALIFORNIA GREEN CODE 5.106.5.3.1
PROVIDED	13 EV SPACE (2 EVCS, 1 VAN ACCESSIBLE EVCS)

ROUNDING - IF THE TOTAL NUMBER OF PARKING SPACES REQUIRED FOR A DEVELOPMENT IS OTHER THAN A WHOLE NUMBER, THE NUMBER SHALL BE ROUNDED UP TO THE NEXT WHOLE NUMBER.

BICYCLE PARKING

LONG TERM	REQUIRED	14 (PER LAMC, SECTION 12.21 A16)
	PROVIDED	16 (BASEMENT)
SHORT TERM	REQUIRED	14 (PER LAMC, SECTION 12.21 A16)
	PROVIDED	14 (GROUND FLOOR)

PARKING ANALYSIS

PRELIMINARY NOT FOR CONSTRUCTION

118, LP.
3121 STANFORD AVE,
VENICE, CA 90292

ARCHITECT:
mOrphosis
3440 Wesley Street
Culver City, CA 90232
T: 424.258.6200
www.morphosis.net

CONSULTANTS:

STRUCTURAL ENGINEER:
ENGLEKIRK STRUCTURAL ENGINEERS
888 S. FIGUEROA ST, 18TH FLOOR
LOS ANGELES, CA 90017

CIVIL ENGINEER:
SEABOARD ENGINEERING
1415 EAST COLORADO ST, SUITE 205
GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
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6150 WASHINGTON BLVD
CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
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7123 REMMET AVE.
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FIRE/LIFE-SAFETY CODE COMPLIANCE:
SIMPSON GYMPERTZ & HEGER
1150 S. OLIVE ST, SUITE 1600
LOS ANGELES, CA 90015

DRY UTILITY CONSULTANT:
DRY UTILITY EXPERTS
125 N. OLIVE ST.
ORANGE, CA 92866

AUDIO VISUAL / TELECOM / ACOUSTICS:
WAVEGUIDE
6060 CENTER DRIVE, SUITE 870
LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:
GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

PROJECT INFORMATION

DATE:	11/08/11
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A0.001

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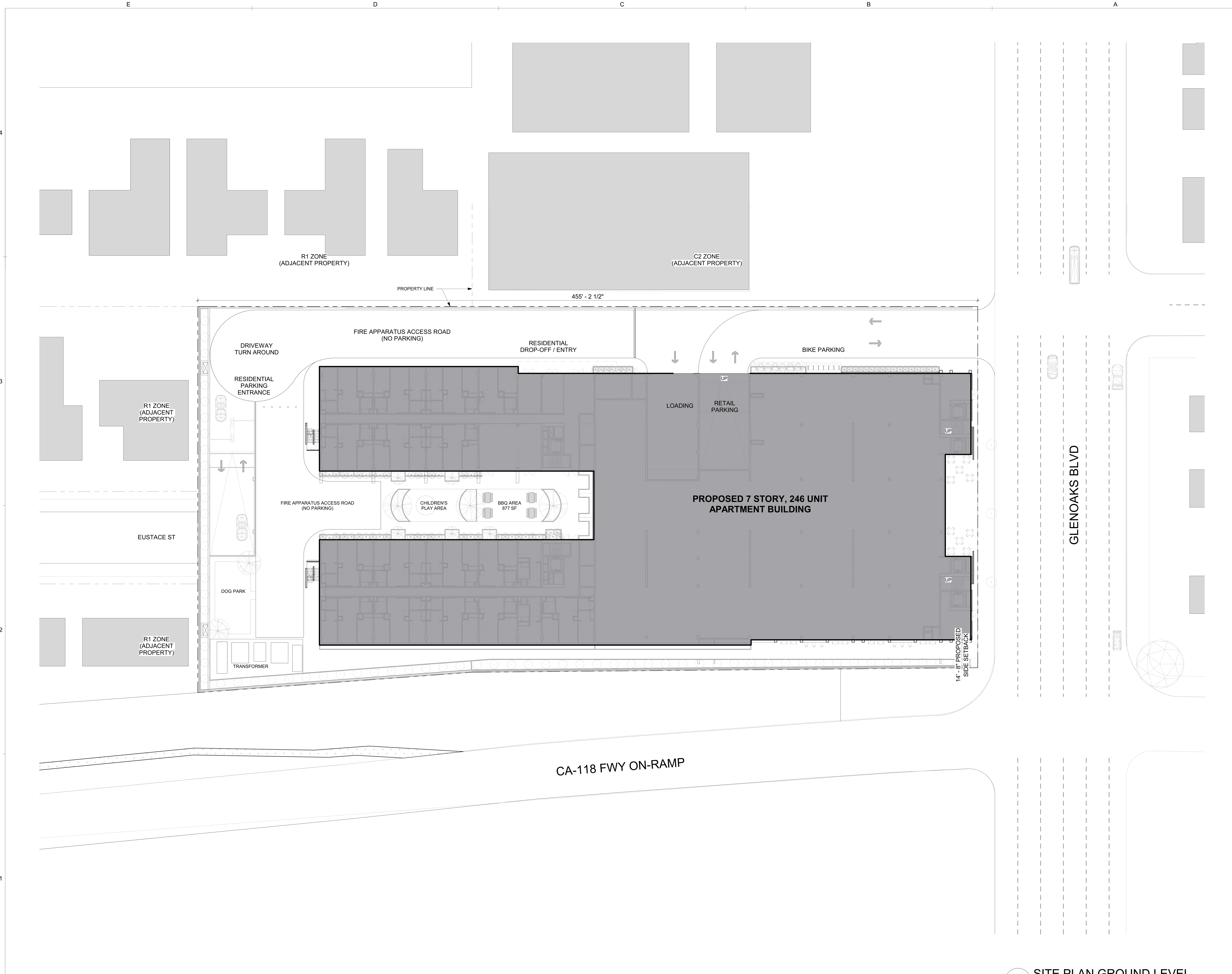

A1 SITE PLAN GROUND LEVEL
SCALE: 1" = 20'-0"

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14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

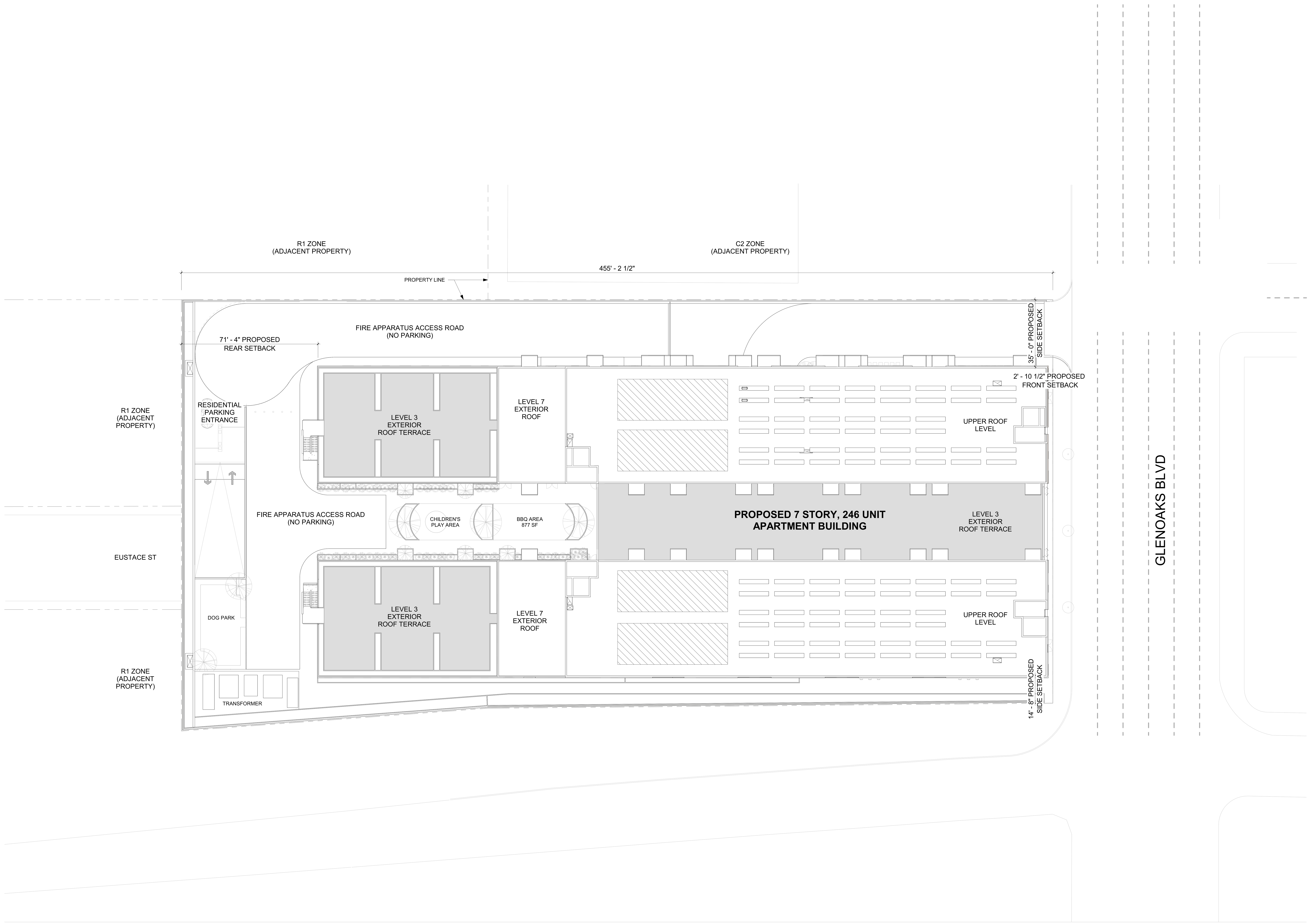
KEY PLAN:

PROJECT:
GLENOAKS HOUSING GLORY
11623 GLENOAKS BLVD, PACOIMA CA 91331

SITE PLAN GROUND LEVEL

DATE:	09/24/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A0.101



A1 SITE PLAN ROOF LEVEL

SCALE: 1" = 20'-0"

PRELIMINARY NOT FOR CONSTRUCTION

118, LP.

3121 STANFORD AVE,
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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

N

PROJECT:

GLENOAKS HOUSING
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

SITE PLAN ROOF LEVEL

DATE:	09/24/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A0.102

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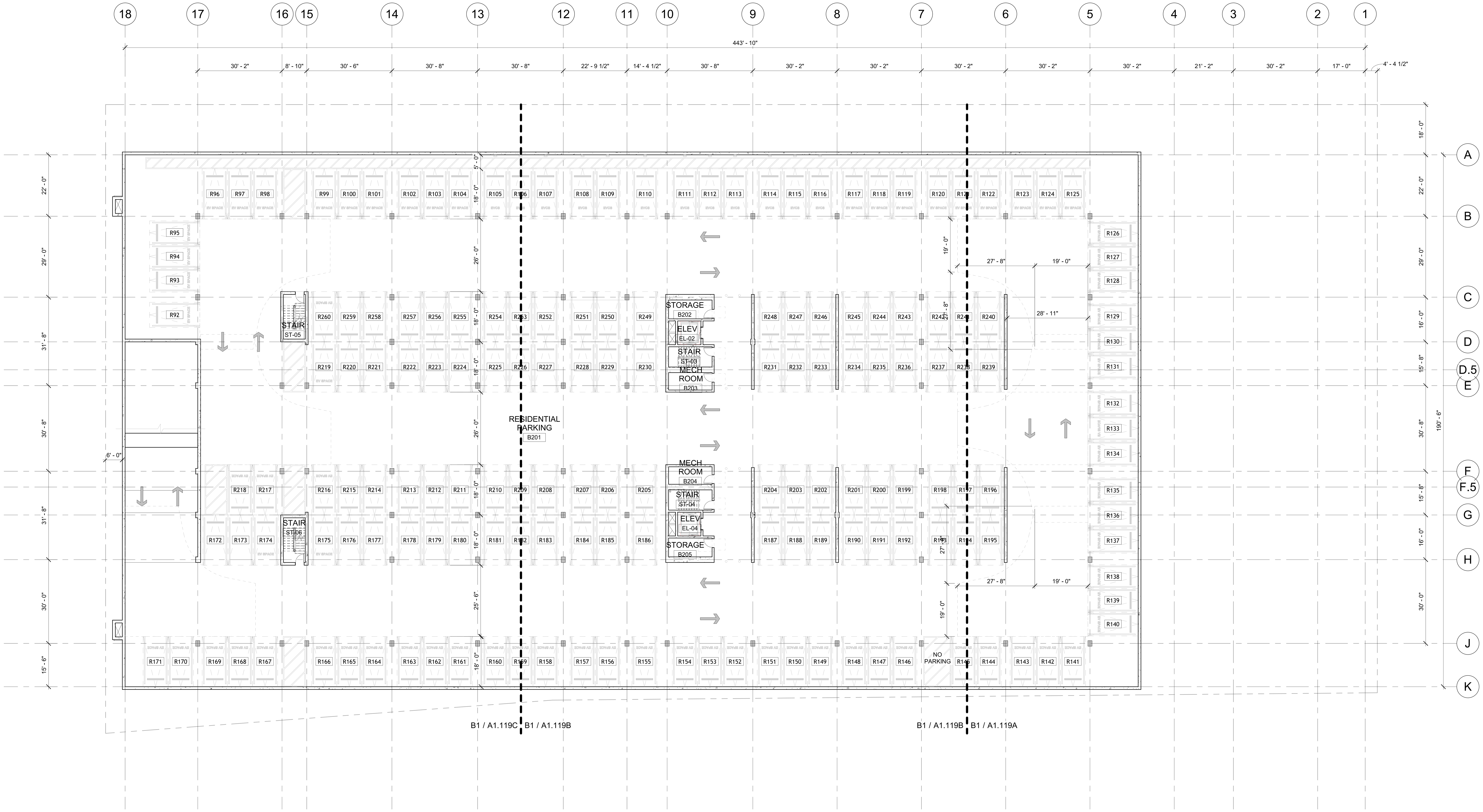

A1 FLOOR PLAN OVERVIEW - BASEMENT FLOOR 2

SCALE: 1/16" = 1'-0"

SHEET NOTES

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ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:

GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - BASEMENT FLOOR 2

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	
A1.099	

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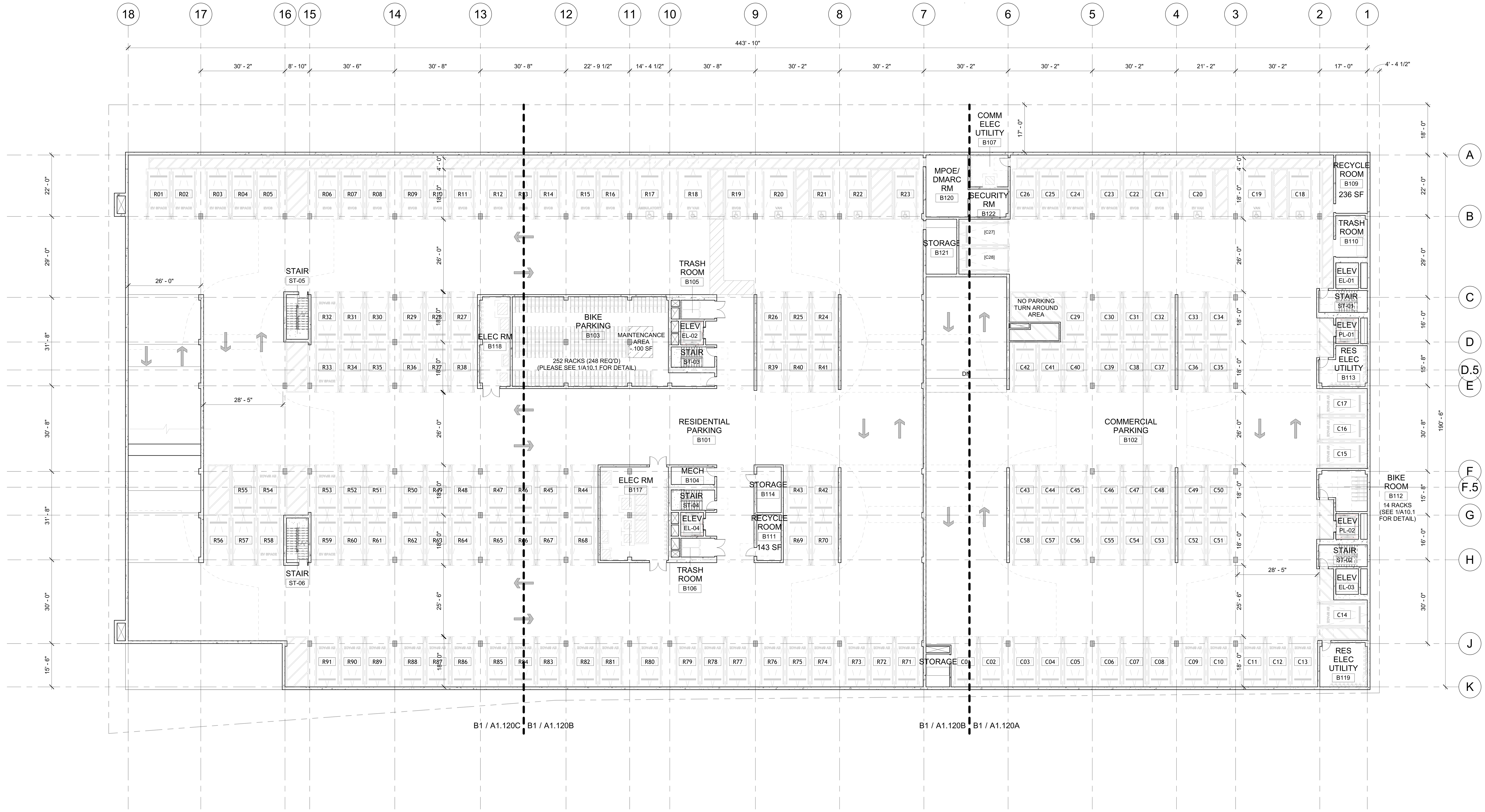


FLOOR PLAN OVERVIEW - BASEMENT FLOOR 1

A1
SCALE: 1/16" = 1'-0"

SHEET NOTES

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PRELIMINARY NOT FOR CONSTRUCTION

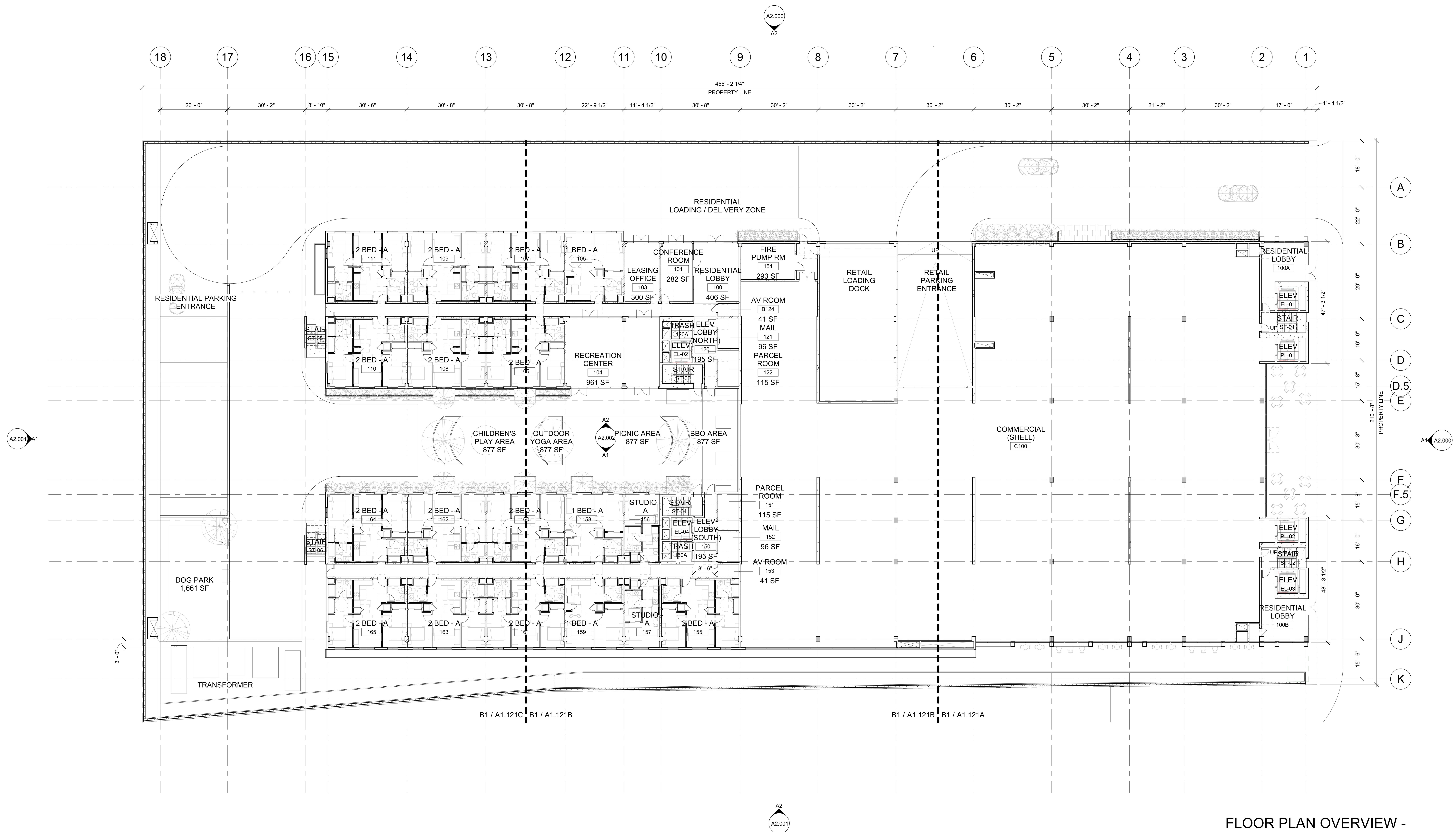
PROJECT:

GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - BASEMENT FLOOR 1

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A1.100



A1 FLOOR PLAN OVERVIEW - GROUND FLOOR

SCALE: 1/16" = 1'-0"

SHEET NOTES

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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

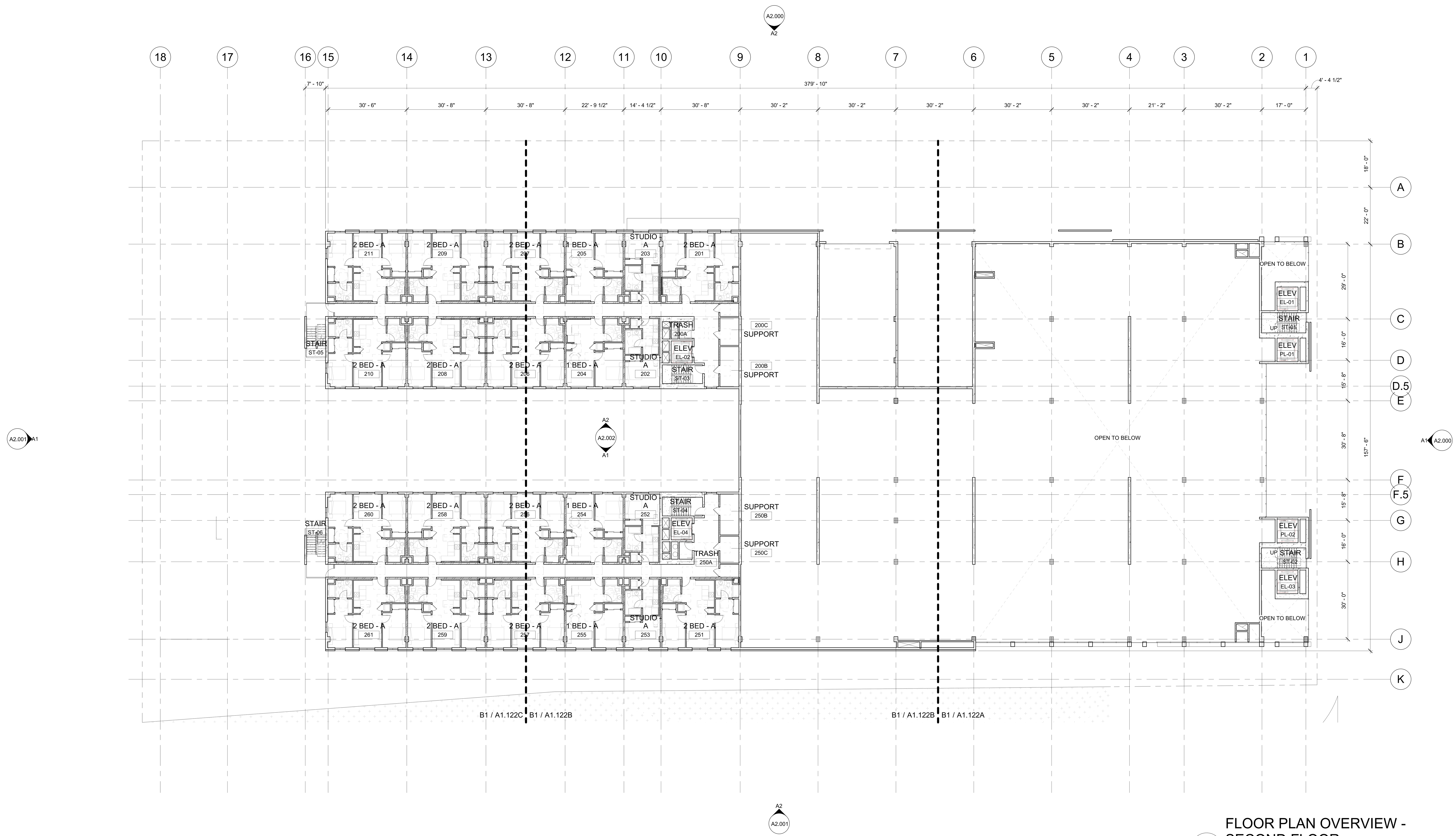
KEY PLAN:

PROJECT:
GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - GROUND FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A1.101



A1 FLOOR PLAN OVERVIEW - SECOND FLOOR

SCALE: 1/16" = 1'-0"

SHEET NOTES

PRELIMINARY NOT FOR CONSTRUCTION

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VENICE, CA 90292

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CONSULTANTS:

STRUCTURAL ENGINEER:
ENGLEKIRK STRUCTURAL ENGINEERS
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LOS ANGELES, CA 90017

CIVIL ENGINEER:
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1415 EAST COLORADO ST, SUITE 205
GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
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6150 WASHINGTON BLVD
CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
CREATIVE ENGINEERING GROUP
7123 REMMET AVE,
CANOGA PARK, CA 91303

FIRE/LIFE-SAFETY CODE COMPLIANCE:
SIMPSON GYMPERTZ & HEGER
1150 S. OLIVE ST, SUITE 1600
LOS ANGELES, CA 90015

DRY UTILITY CONSULTANT:
DRY UTILITY EXPERTS
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AUDIO VISUAL / TELECOM / ACOUSTICS:
WAVEGUIDE
6060 CENTER DRIVE, SUITE 870
LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

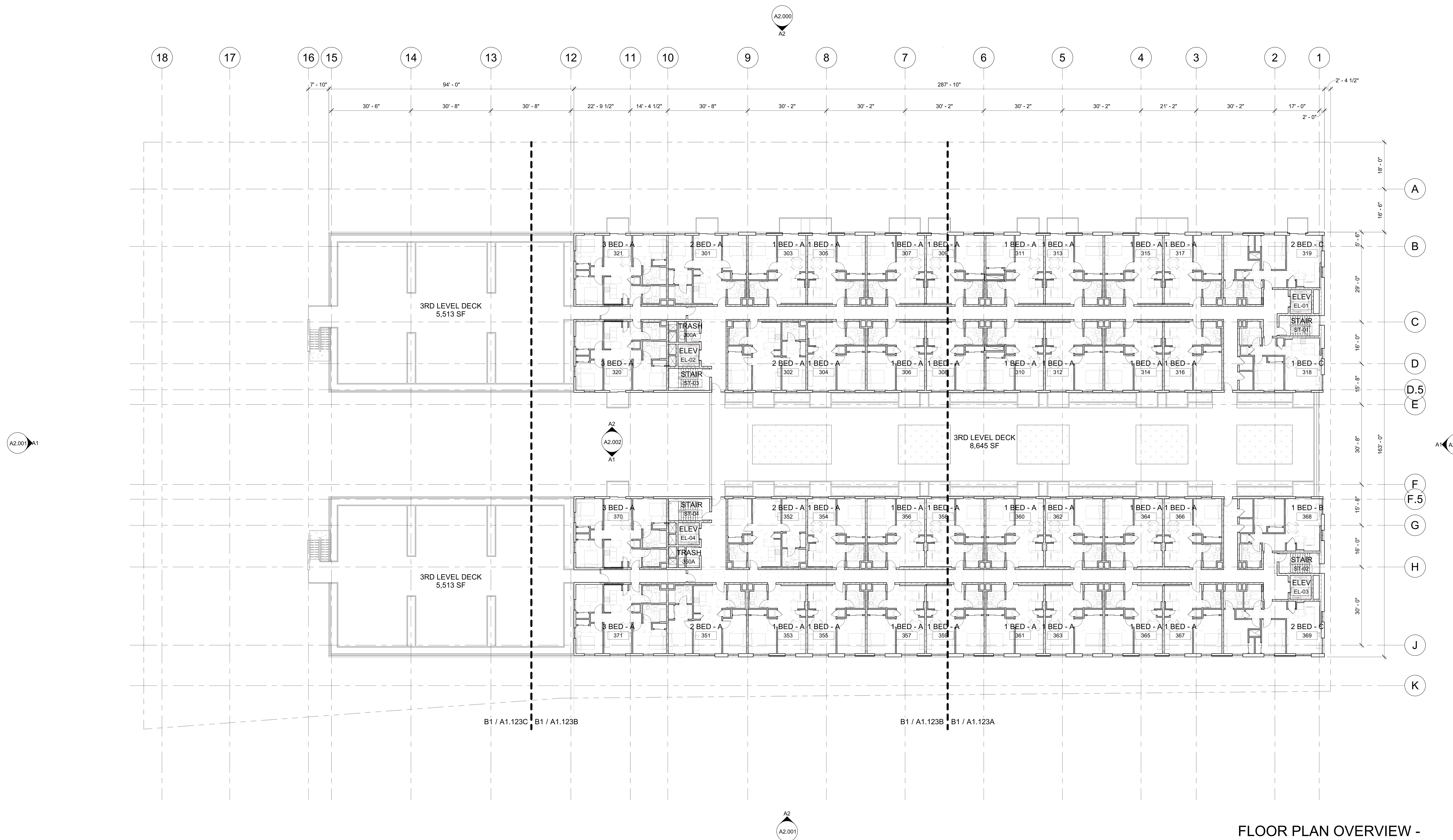
PROJECT:
GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - SECOND FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A1.102



A1 FLOOR PLAN OVERVIEW - THIRD FLOOR

SCALE: 1/16" = 1'-0"

SHEET NOTES

PRELIMINARY NOT FOR CONSTRUCTION

118, LP.
3121 STANFORD AVE,
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ARCHITECT:
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CIVIL ENGINEER:
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LANDSCAPE ARCHITECT:
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ORANGE, CA 92866

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LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

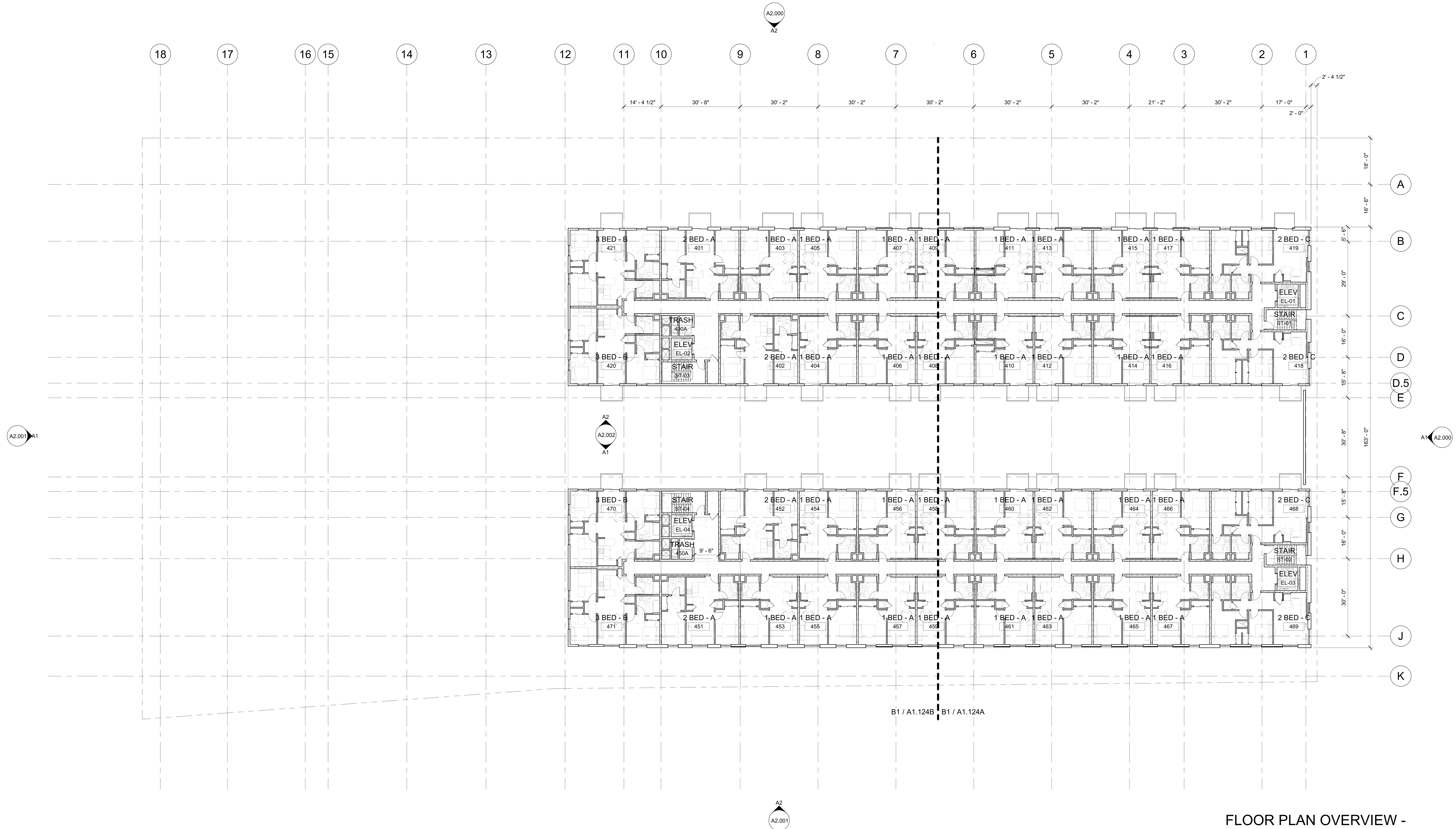
PROJECT:

GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - THIRD FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A1.103



FLOOR PLAN OVERVIEW - FOURTH FLOOR

A1

SCALE: 1/16" = 1'-0"

SHEET NOTES

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CIVIL ENGINEER:
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GLENDALE, CA 91205

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MECHANICAL ELECTRICAL PLUMBING:
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CANOGA PARK, CA 91303

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ORANGE, CA 92866

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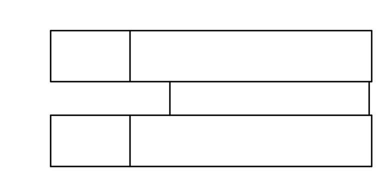
LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:



PROJECT:

GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - FOURTH FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A1.104

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LANDSCAPE ARCHITECT:
KSA DESIGN STUDIO
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CULVER CITY, CA 90232

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GEOTECHNICAL ENGINEER:
GEOCONCEPTS
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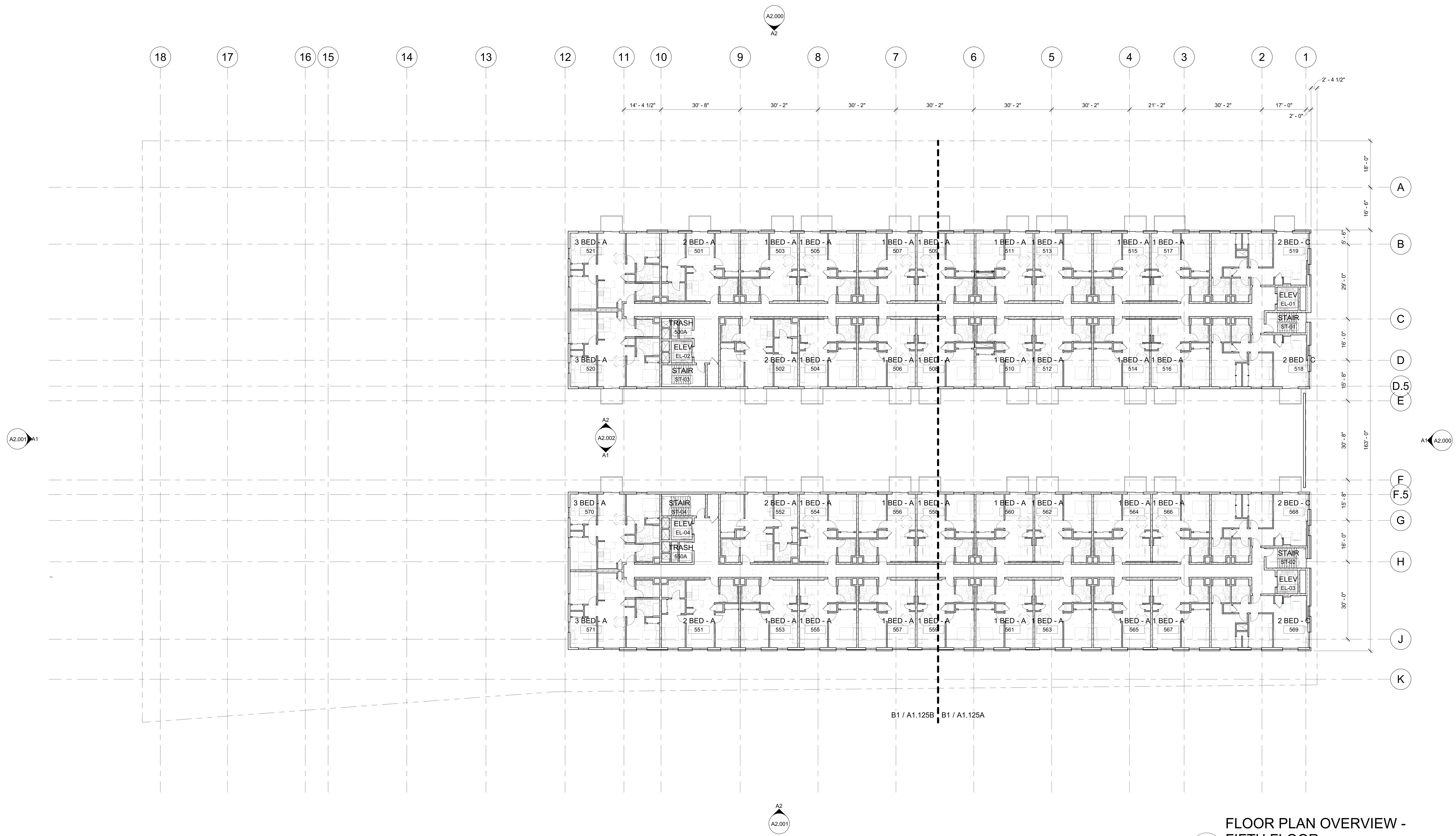
VAN NUYS, CA 91401



A1 **FLOOR PLAN OVERVIEW - FIFTH FLOOR**

SCALE: 1/16" = 1'-0"

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

N

SHEET NOTES

PRELIMINARY NOT FOR CONSTRUCTION

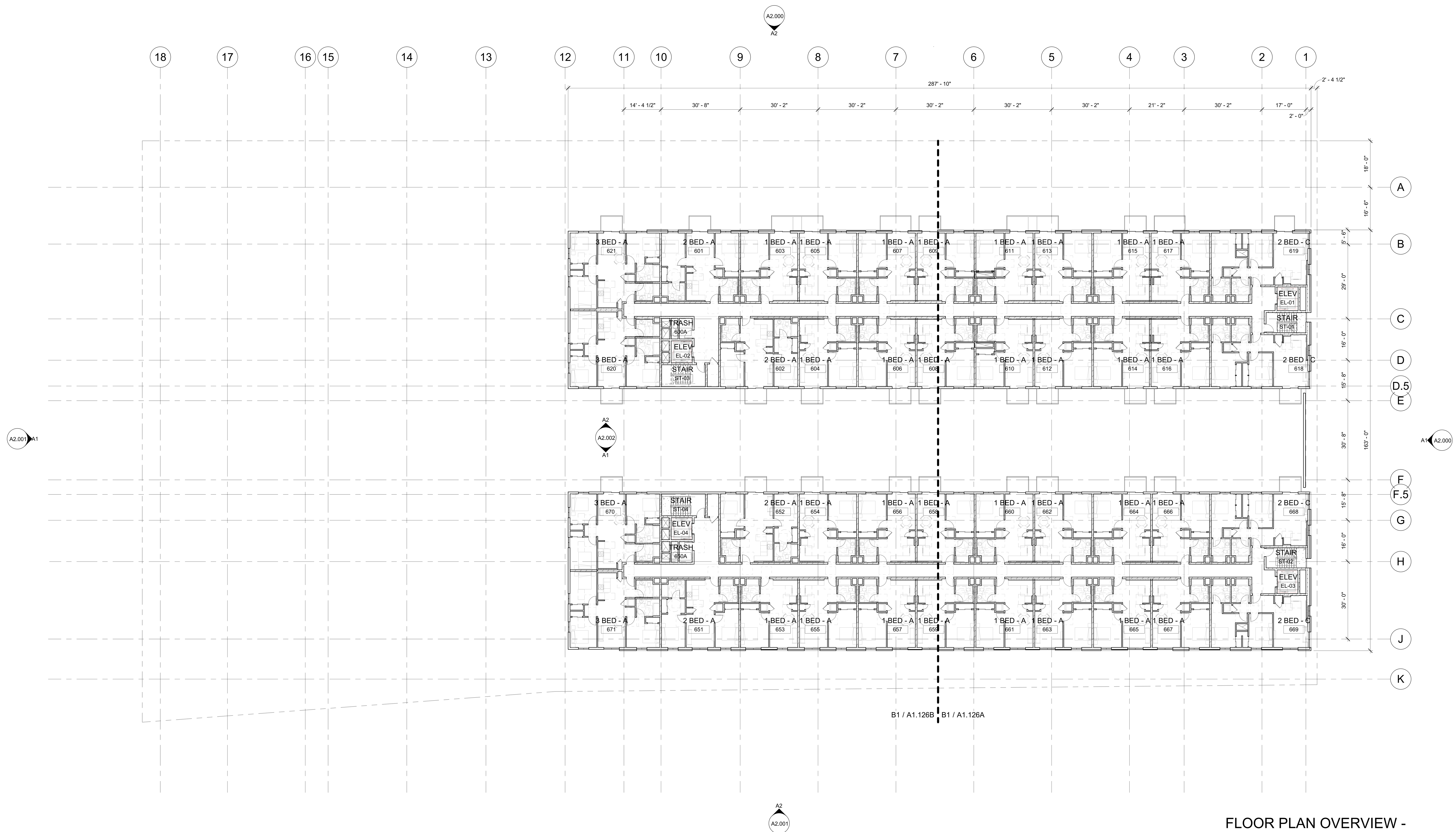
PROJECT:

GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - FIFTH FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	A1.105



A1 FLOOR PLAN OVERVIEW - SIXTH FLOOR

SCALE: 1/16" = 1'-0"

SHEET NOTES

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CIVIL ENGINEER:
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GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
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CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
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CANOGA PARK, CA 91303

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AUDIO VISUAL / TELECOM / ACOUSTICS:
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GEOTECHNICAL ENGINEER:
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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

N

PROJECT:

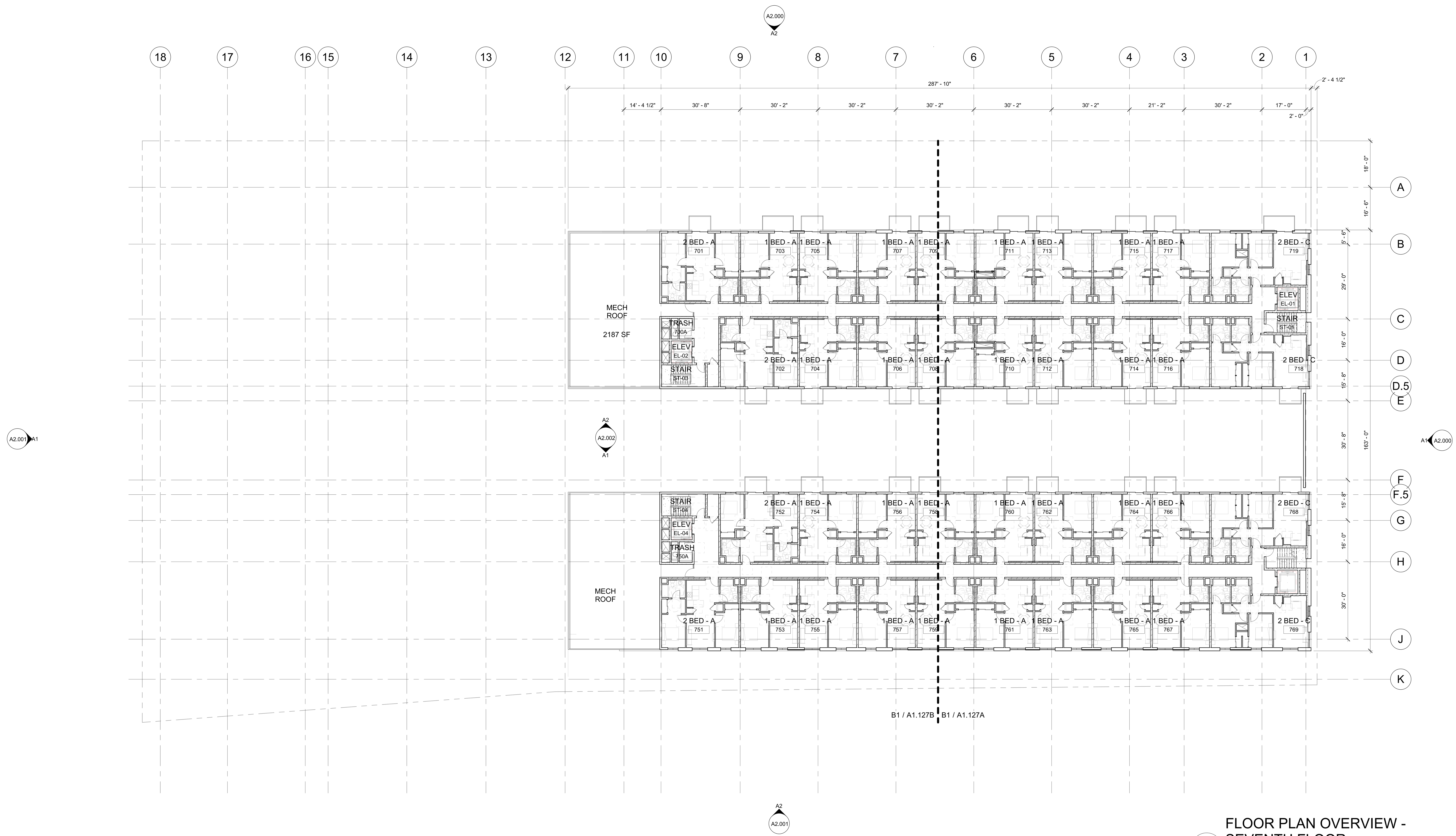
GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - SIXTH FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A1.106



A1 FLOOR PLAN OVERVIEW - SEVENTH FLOOR

SCALE: 1/16" = 1'-0"

SHEET NOTES

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GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
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MECHANICAL ELECTRICAL PLUMBING:
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LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

N

PROJECT:

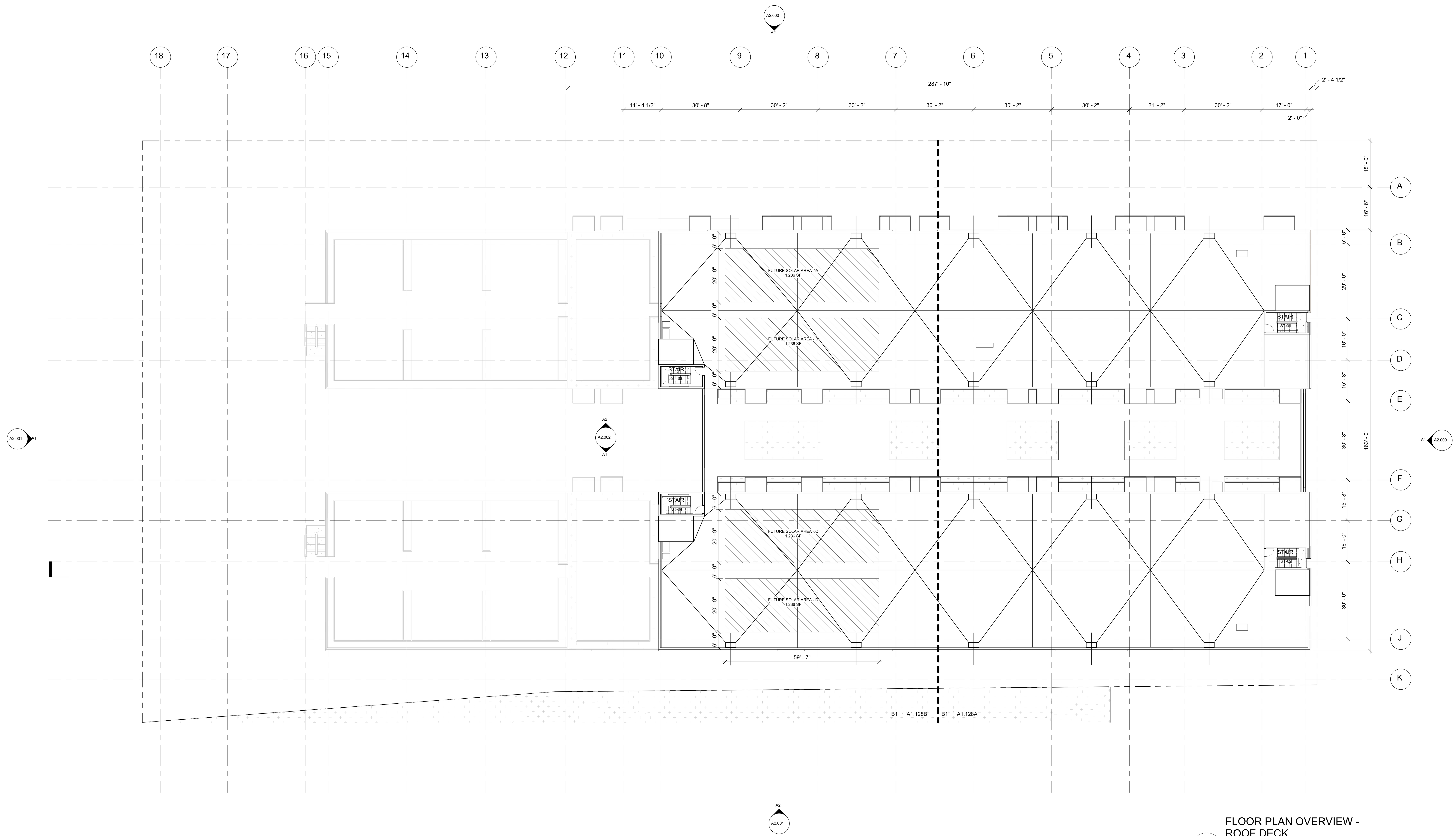
GLENOAKS HOUSING GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW - SEVENTH FLOOR

DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A1.107



FLOOR PLAN OVERVIEW - ROOF DECK

A1

SCALE: 1/16" = 1'-0"

SHEET NOTES

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CIVIL ENGINEER:
SEABOARD ENGINEERING
1415 EAST COLORADO ST, SUITE 205
GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
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6150 WASHINGTON BLVD
CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
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GEOTECHNICAL ENGINEER:
GEOCONCEPTS
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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:

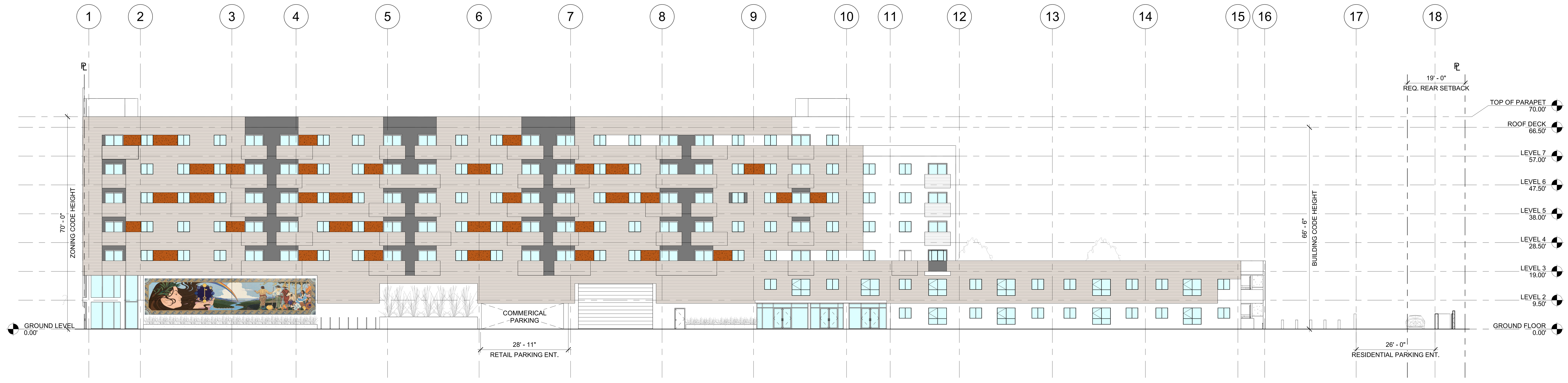
GLENOAKS HOUSING
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

FLOOR PLAN OVERVIEW -
ROOF DECK

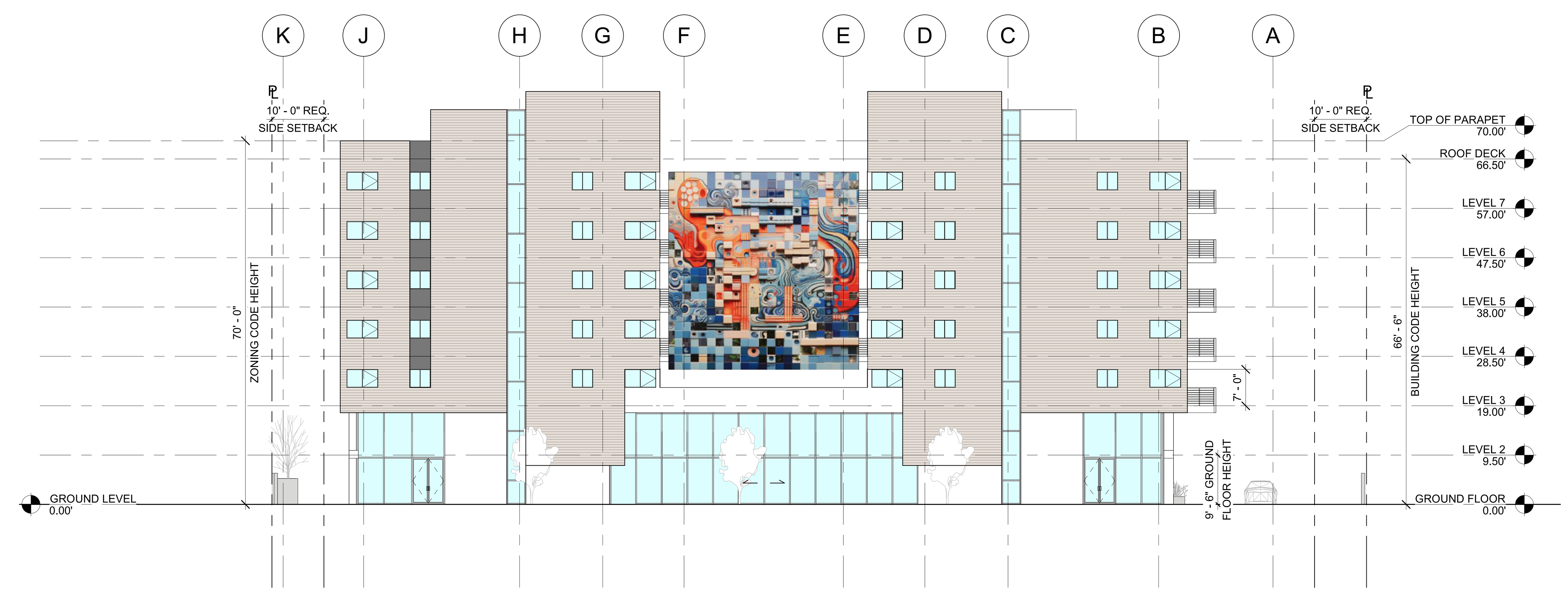
DATE:	09/12/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A1.108



A2 EXTERIOR ELEVATION - NORTH

SCALE: 1/16" = 1'-0"



A1 EXTERIOR ELEVATION - EAST

SCALE: 1/16" = 1'-0"

SHEET NOTES

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GLENDALE, CA 91205

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CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
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GEOTECHNICAL ENGINEER:
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ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:
GLENOAKS HOUSING
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

BUILDING ELEVATIONS

DATE:	09/26/24
PROJECT NO:	24060300
DRAWING BY:	Author
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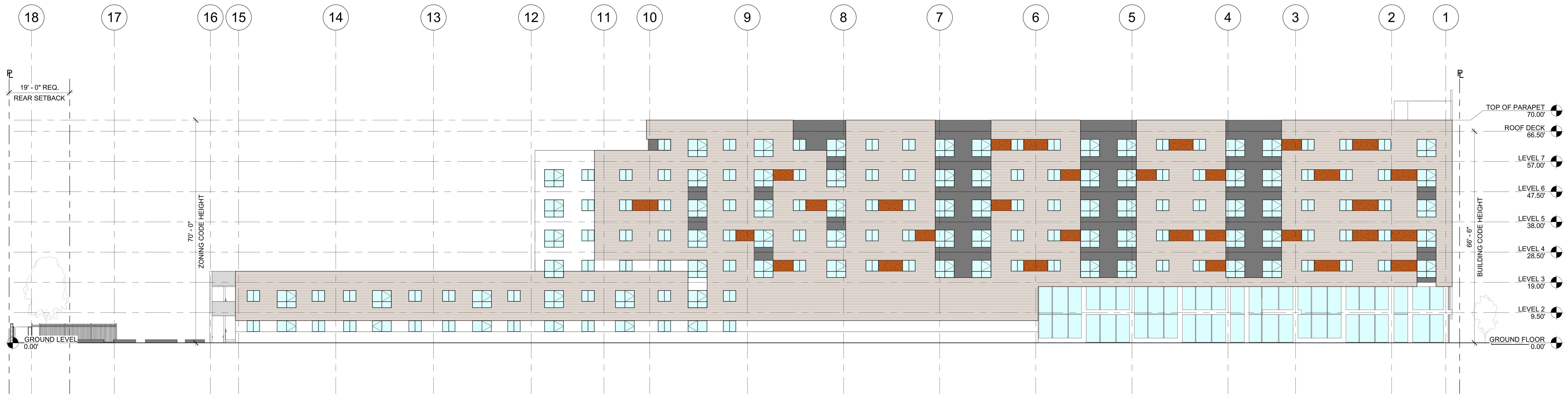
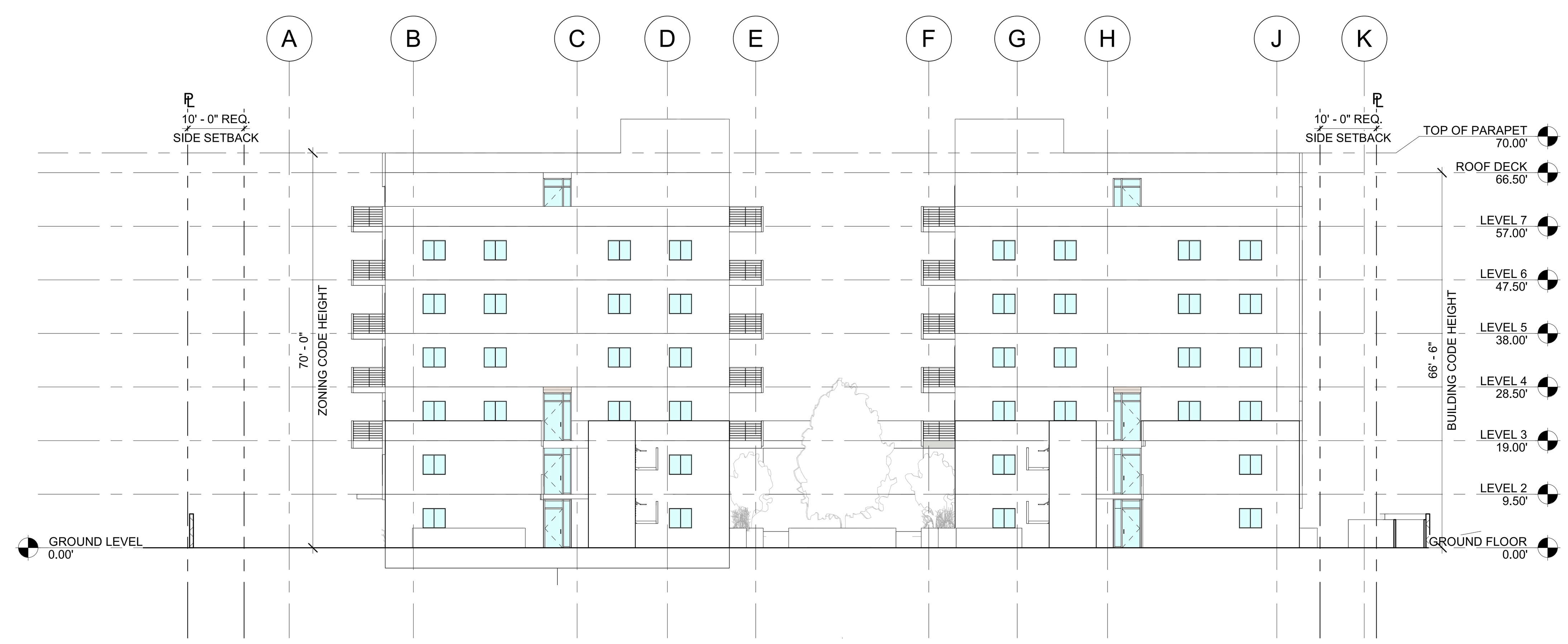
DRAWING NO:	
A2.000	



A2 EXTERIOR ELEVATION - SOUTH

SCALE: 1/16" = 1'-0"



A1 EXTERIOR ELEVATION - WEST

SCALE: 1/16" = 1'-0"

SHEET NOTES

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GEOTECHNICAL ENGINEER:
GEOCONCEPTS
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VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:

GLENOAKS HOUSING
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

BUILDING ELEVATIONS

DATE:	09/30/24
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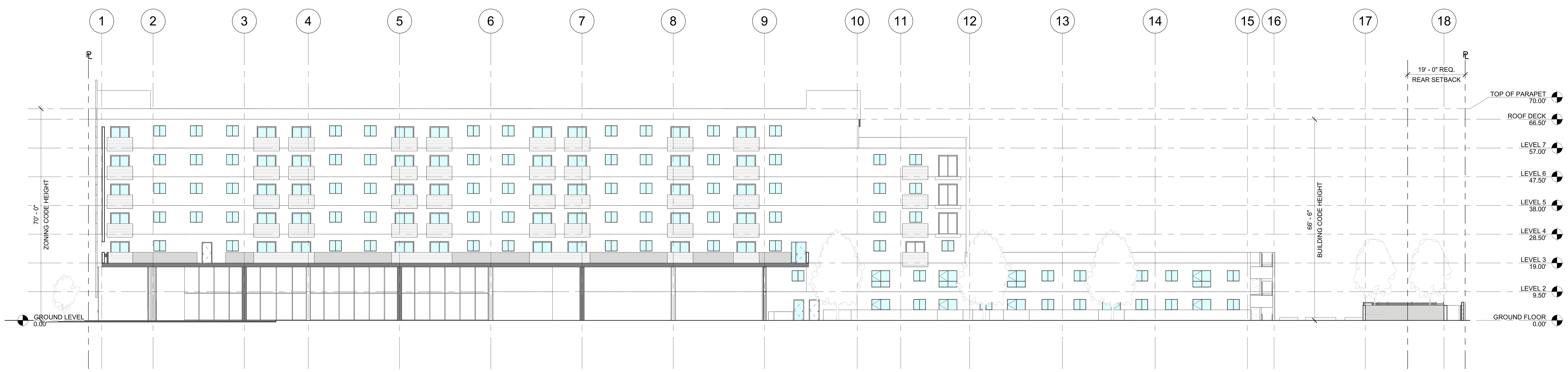
DRAWING NO:	A2.001

10/30/2024 1:45:32 PM

COURTYARD ELEVATION - NORTH

A2

SCALE: 1/16" = 1'-0"



COURTYARD ELEVATION - SOUTH

A1

SCALE: 1/16" = 1'-0"

SHEET NOTES

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ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION
10/18/2024	1	50% DD

KEY PLAN:

PROJECT:
GLENOAKS HOUSING
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

BUILDING ELEVATIONS

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DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

A2.002

ENTRANCE FLOOR PLAN

GROUNDCOVER PLANTING WITH SPECIMEN SHRUBS

STAMPED CONCRETE INTEGRAL COLOR IN CIRCULAR RUNNING BOND PATTERN

FICUS GREEN HEDGE ALONG CMU WALL

STAMPED CONCRETE INTEGRAL COLOR IN RUNNING BOND PATTERN 3'x6' SIZE

CONCRETE PAVERS RUNNING BONB SHOWN 2'x4"+/-

RAISED MODULAR PLANTER WITH OLIVE TREE AND WOODEN BENCH SEATING

OUTDOOR LOUNGE AND DINING AREA WITH CAFE SEATING

NEW STREET TREES AT GLENOAKS BLVD FRONTAGE WITH TREE GRATES PER CITY STANDARDS

LARGE 4' WIDE HEDGE PLANTING BEHIND GRASSES WITH SMALL CANOPY TREE

12"WIDTH PLANTER WITH JUNCUS GRASSES AND SPECIMEN TREES

REMOVABLE BOLLARDS

GRASSCRETE OR COMPARABLE FOR PEDESTRIAN AND FIRE TRUCK VEHICULAR EMERGENCY ACCESS

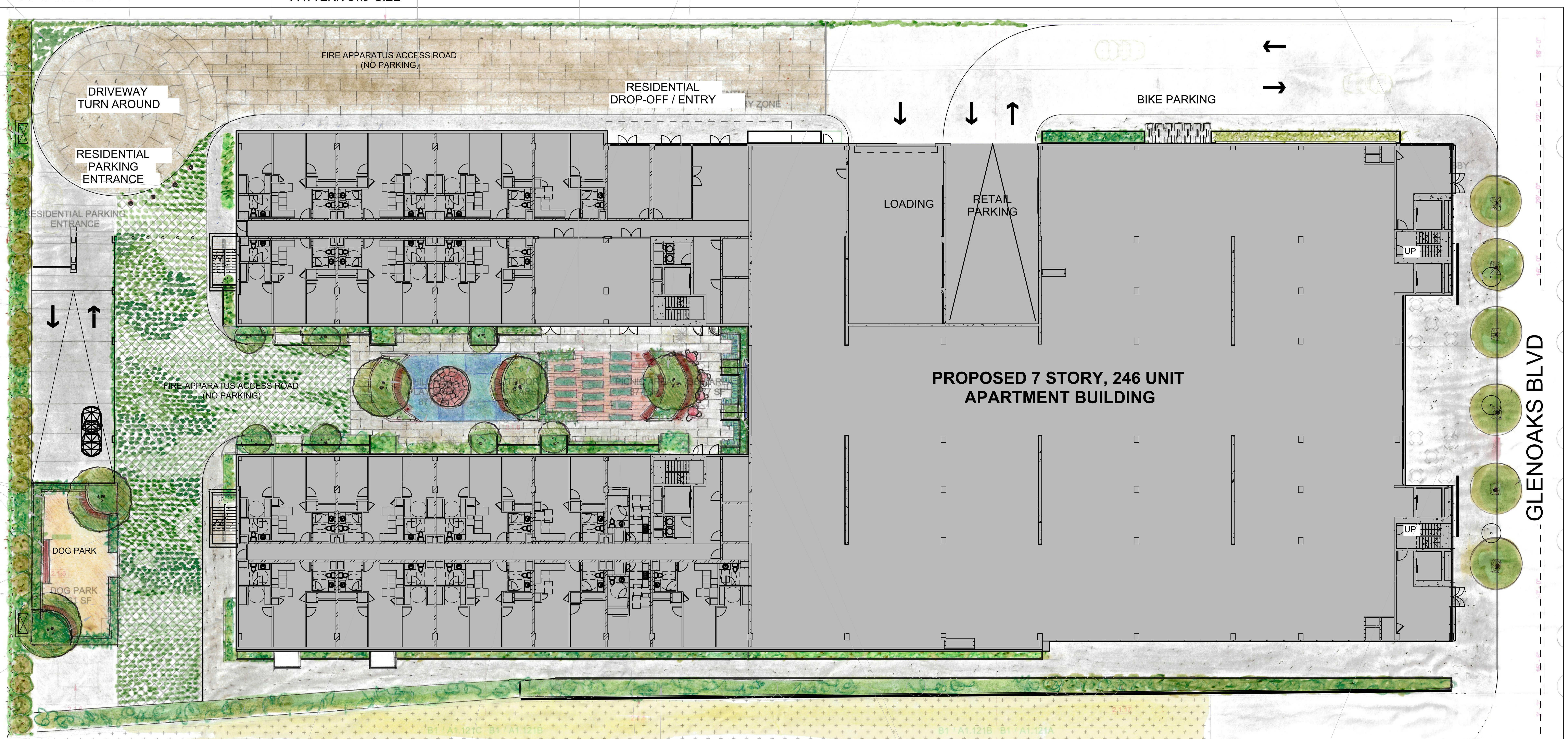
RAISED PERIMETER PLANTERS FOR LID

RAISED PLANTER WITH OLIVE TREE AND WOODEN BENCH SEATING

DOG PARK WITH PERIMETER HEDGE PLANTING AND 2 SEMI-CIRCULAR RAISED PLANTERS WITH OLIVE TREES. WOODEN BENCH SEATING AND DOG PARK AMENITIES

IN-GROUND PRIVACY PLANTING LID PLANTERS

DECOPOSED GRANITE SURFACE COMPACTED AND STABILIZED WITH POLY PAVEMENT SEALANT



CHILDREN PLAY AREA WITH SAFETY SURFACE APPROX 20'x30' WITH VARIOUS EQUIPMENT PLAY SHOWN: ROFE CLIMBING JUNGLE GYM

SURROUND PLANTER FOR SEMI-PRIVACY

COMMUNITY DECK FLEXIBLE SPACE WITH SEATING AND BBQS 16'x30' WITH OPTION FOR OUTDOOR EXERCISE

PLANTING WITH TALL HEDGE PLANTS AND SPECIMEN TREES TO BLOCK NOISE ADD SHADING ALONG LENGTH OF BLDG

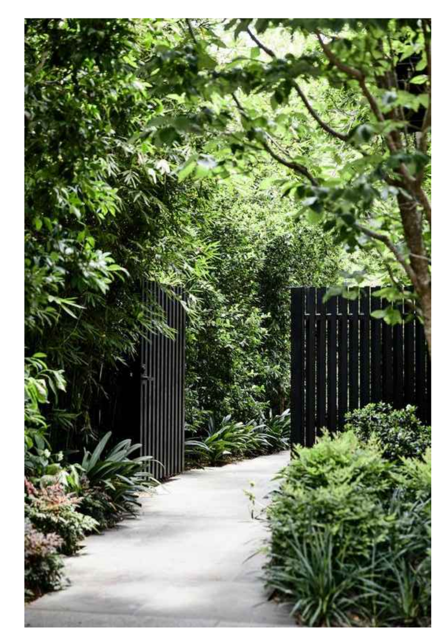
VERTICAL GREEN WALL WITH CENTRAL WATER WALL AS COURTYARD BACKDROP

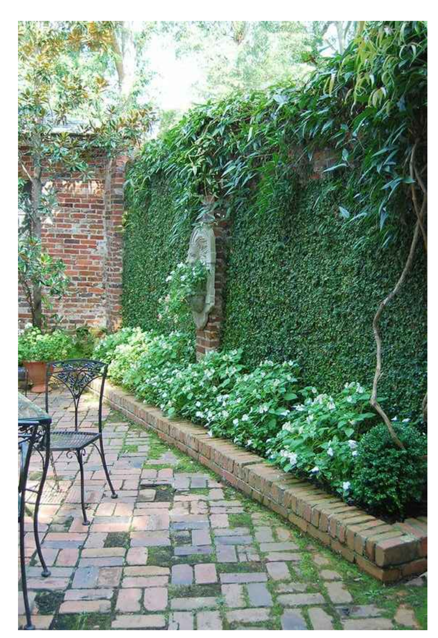
CONCRETE WITH EXPOSED AGGREGATE AT ENTRANCE & SITE PERIMETER

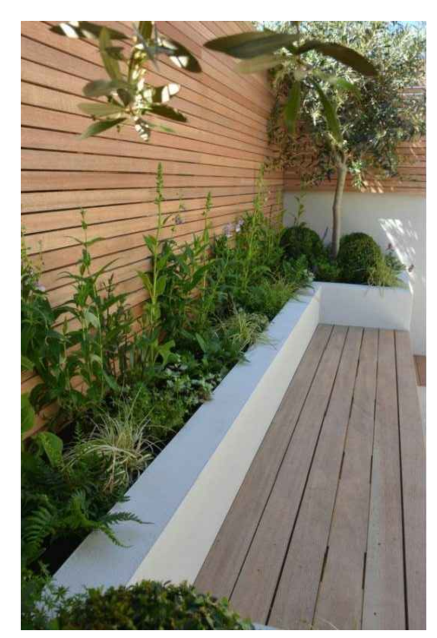
L1 GROUND FLOOR PLAN

SCALE: 1/16" = 1'-0"

PRECEDENT IMAGE







118, LP.
3121 STANFORD AVE,
VENICE, CA 90292

ARCHITECT:
mOrphosis
3440 Wesley Street
Culver City, CA 90232

T: 424.258.6200
www.morphosis.net

CONSULTANTS:

STRUCTURAL ENGINEER:
ENGLEKIRK STRUCTURAL ENGINEERS
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LOS ANGELES, CA 90017

CIVIL ENGINEER:
SEABOARD ENGINEERING
1415 EAST COLORADO ST, SUITE 205
GLENDALE, CA 91205

LANDSCAPE ARCHITECT:
KSA DESIGN STUDIO
6150 WASHINGTON BLVD
CULVER CITY, CA 90232

MECHANICAL ELECTRICAL PLUMBING:
CREATIVE ENGINEERING GROUP
7123 REMMET AVE.
CANOGA PARK, CA 91303

FIRE/LIFE-SAFETY CODE COMPLIANCE:
SIMPSON GYMPERTZ & HEGER
1150 S. OLIVE ST, SUITE 1600
LOS ANGELES, CA 90015

DRY UTILITY CONSULTANT:
DRY UTILITY EXPERTS
125 N. OLIVE ST.
ORANGE, CA 92866

AUDIO VISUAL / TELECOM / ACOUSTICS:
WAVEGUIDE
6060 CENTER DRIVE, SUITE 870
LOS ANGELES, CA 90045

GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

DATE	SYMBOL	DESCRIPTION

KEY PLAN:

PRELIMINARY NOT FOR CONSTRUCTION

PROJECT:
GLORY

11623 GLENOAKS BLVD, PACOIMA CA 91331

LANDSCAPE
GROUND FLOOR PLAN

DATE:	09/24/24
PROJECT NO:	24060300
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	LP 1.0

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THIRD FLOOR PLAN

3' WIDE PLANTERS WITH LOW HEIGHT FRAGRANT PLANTING (WESTRINGIA BLUE GEM)

LOUNGE SEATING FOR DINING

2 BBQ AREAS WITH COUNTER SPACE AND COMMUNITY TABLE AND WOODEN BENCHES

SMALL TREE CREPE MYRTLE FOR COLOR AT DECK ENTRANCE

4' WIDE BARRIER PLANTING BEDS ALONG APARTMENT FACADE LID PLANTING AT 24" HEIGHT

PLANTERS WITH GRASSES TO MATCH APT WINDOW HEIGHT

LOUNGE SEATING WITH SURROUND PLANTINGS

CENTRAL WATER FEATURE WITH PLEASANT SOUND WATER PLINTH OVER PLANTER INTO POOL SURROUNDED BY GRASSES AND SUCCULENTS WITH BENCH SEATING ON THE SIDE

A LINE OF TREES MEDIUM HEIGHT DROUGHT TOLERANT SHADE TREES

SPECIMEN SHRUBS AND PLANTINGS

3' WIDE PLANTERS WITH LOW GRASSES TO VIEW MOUNTAINS

FRUITLESS OLIVE TREES (WILSONII) IN 8' SQ PLANTERS 36" HEIGHT,

BAR COUNTER FOR VIEW

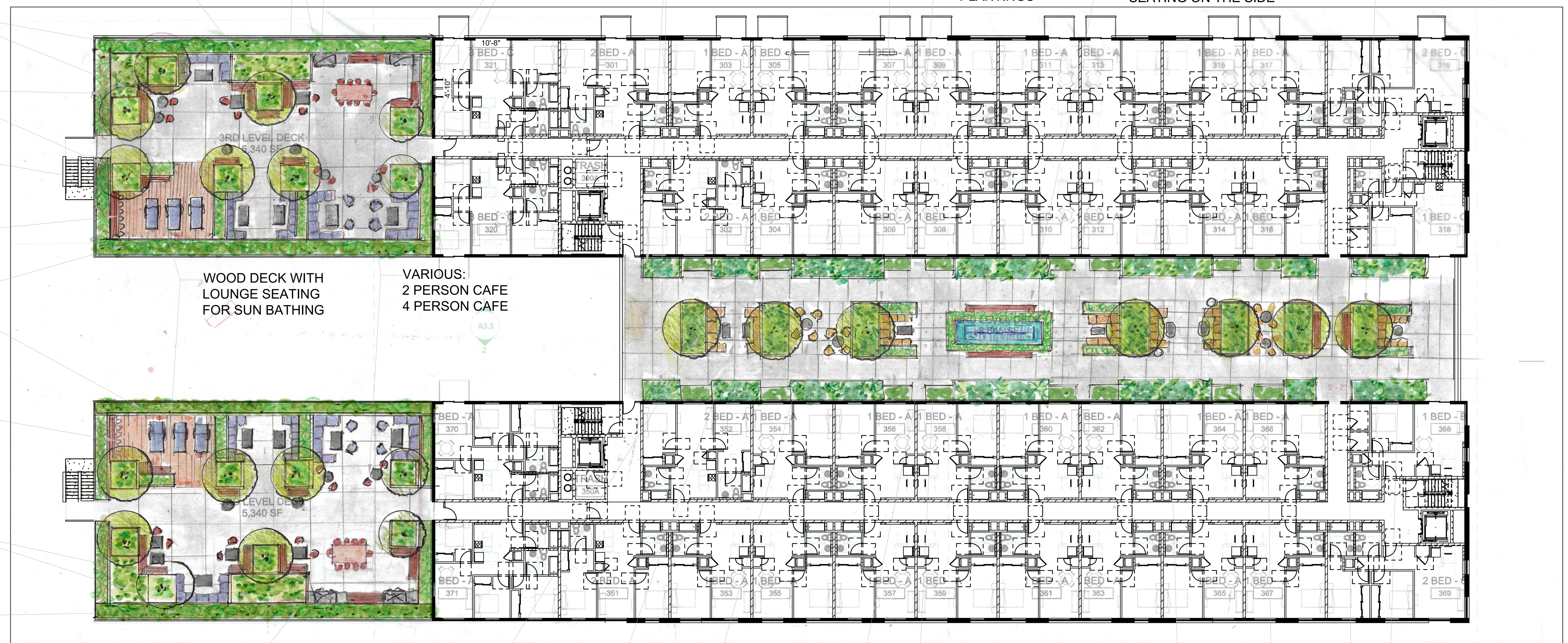
3' WIDE PLANTERS FOR THE MEDIUM HEDGE(WESTRINGIA BLUE GEM)

TWO MIRRORED ROOF TOPS

BAR COUNTER MODULAR FOR MOUNTAIN VIEWING

SPECIMEN SHRUBS AND PLANTINGS

FRAGRANT PERIMETER PLANTING AS BARRIER (WESTRINGIA BLUE GEM)



WOOD DECK WITH LOUNGE SEATING FOR SUN BATHING

VARIOUS:
2 PERSON CAFE
4 PERSON CAFE

MEDIUM HEIGHT SHRUBS FOR SHADING AND MICRO CLIMATE BARRIERS TO FREEWAY NOISE / EXHAUST

8'X16' RAISED PLANTERS FOR TREES, 36" HEIGHT

2 LOUNGE AREAS

CAFE SEATING

STONE PAVERS DIMS SHOWN
8'x8' LARGE SQUARE
4'x4' SMALL SQUARE

SMALLER STONE PAVERS FOR CARPET AFFECT IN LOUNGE AND FOUNTAIN AREAS

LOUNGE AREAS

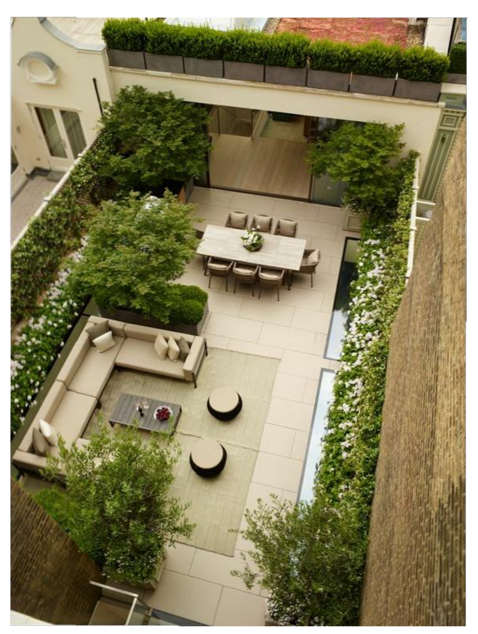
CAFE SEATING

BENCH SEATING

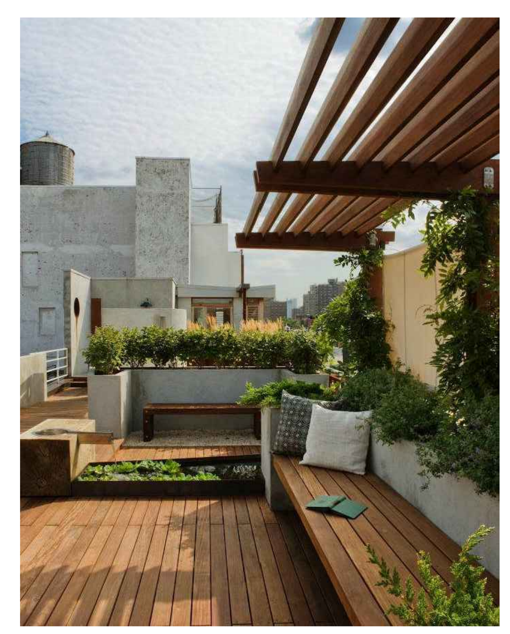
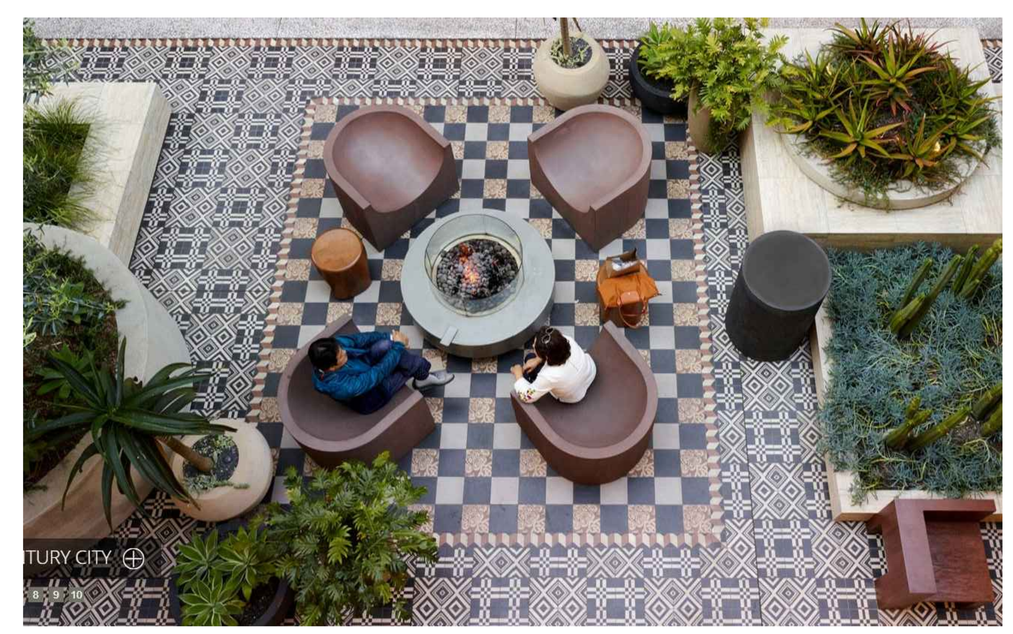
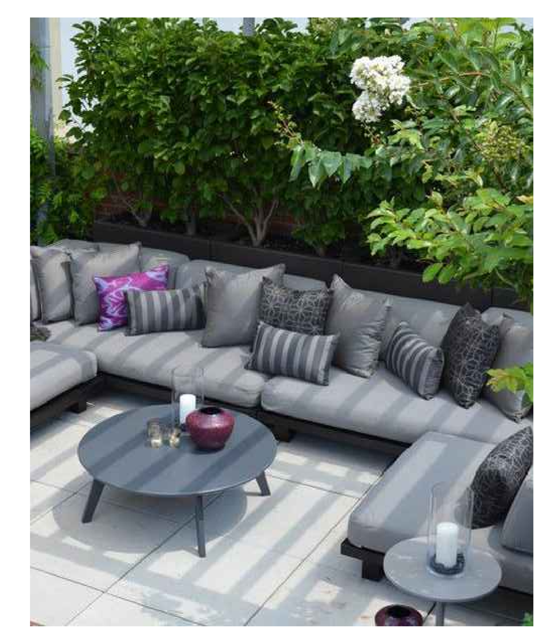
LOUNGE

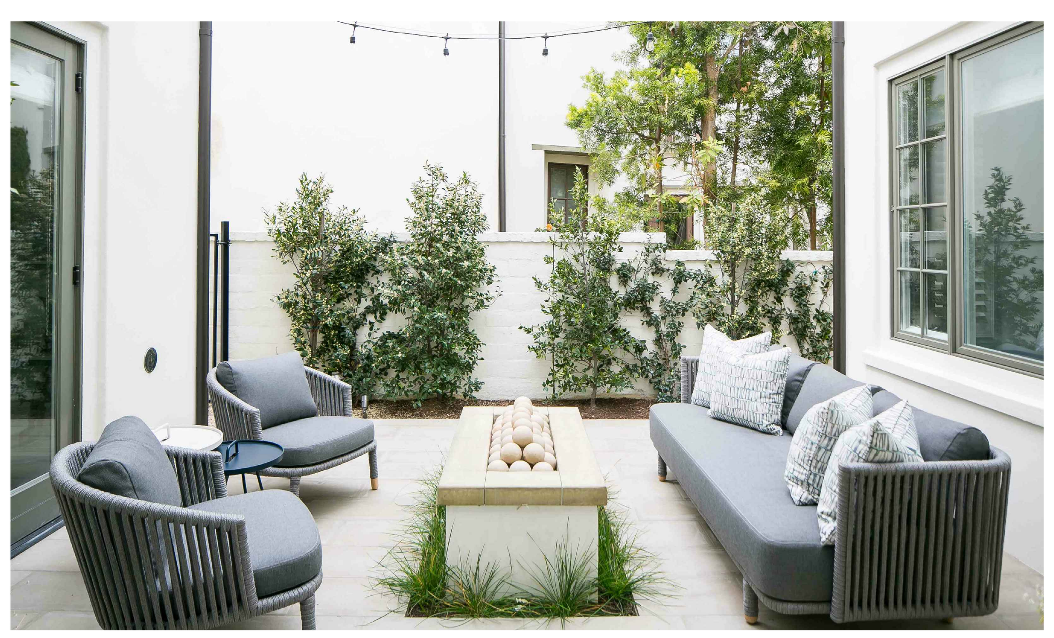
L3 THIRD FLOOR PLAN
SCALE: 1/16" = 1'-0"

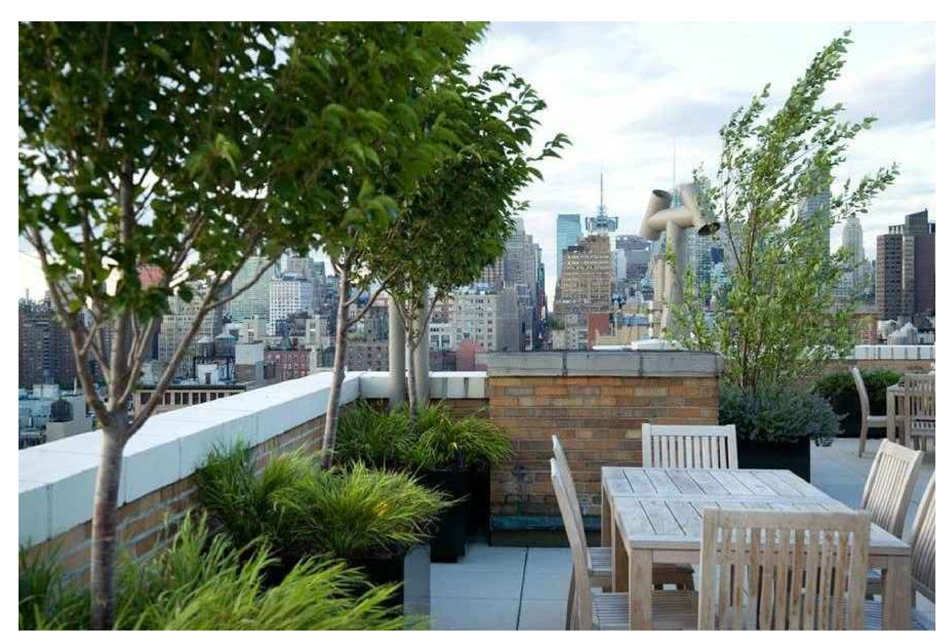
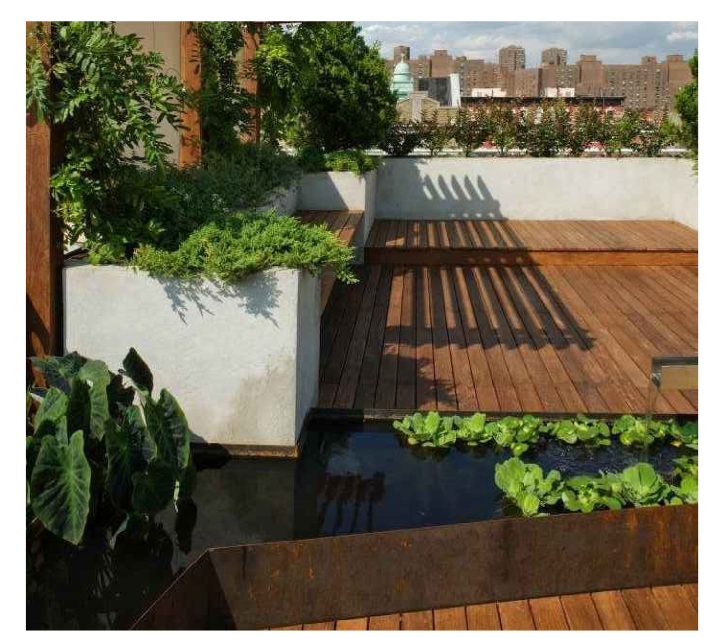
PRECEDENT IMAGE





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GEOTECHNICAL ENGINEER:
GEOCONCEPTS
14428 HAMLIN ST, SUITE 200
VAN NUYS, CA 91401

ISSUES / REVISIONS

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11623 GLENOAKS BLVD, PACOIMA CA 91331

LANDSCAPE
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9/27/2024 6:42:52 PM

PLANTING PALETTE


ACER PALMATUM VAR. DISSECTUM
JAPANESE LANCELEAF MAPLE


THELYPTERIS NORMALIS
WOOD FERN


CAMELLIA JAPONICA
BROADLEAF EVERGREEN


LIRIOPE MUSCARI 'VARIEGATA'
LILY TURF


LIRIOPE GIGANTEA
GIANT LILY TURF


LOMANDRA LONGIFOLIA
DWARF MAT RUSH


FARFUGIUM JAPONICUM VAR. GIGANTEUM


HELLEBORUS ARGUTIFOLIA
CORSICAN HELLEBORE


PELLARGONIUM CORDYFOLIUM
HEARTLEAF GERANIUM


ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY

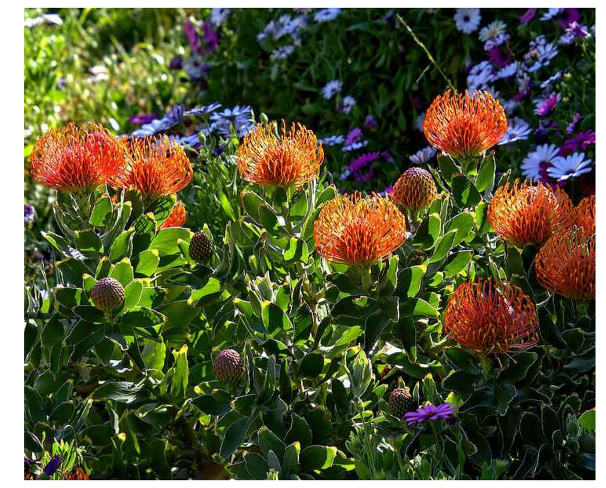

SALVIA SPATHACEA
HUMMINGBIRD SAGE


SESLERIA AUTUMNALIS
AUTUMN MOOR GRASS


WESTRINGIA FRUTICOSA 'BLEU GEM'
BLUE GEM WESTRINGIA


WESTRINGIA FRUTICOSA 'GREY BOX'
GREY BOX WESTRINGIA


WESTRINGIA FRUTICOSA 'MORNING LIGHT'
'MORNING LIGHT WESTRINGIA


LEUCOSPERMUM CORDIFOLIUM
NODDING PINCUSHION


DIANELLA REVOLUTA
LITTLE REV


LAGERSTROEMIA X 'NATCHEZ'
NATCHEZ CRAPE MYRTLE


OLEA EUROPAEA 'NEW WILSONII'
FRUITLESS OLIVE


ARTEMISIA 'POWIS CASTLE'
SILVER SAGE


DIANELLA REVOLUTA
LITTLE REV

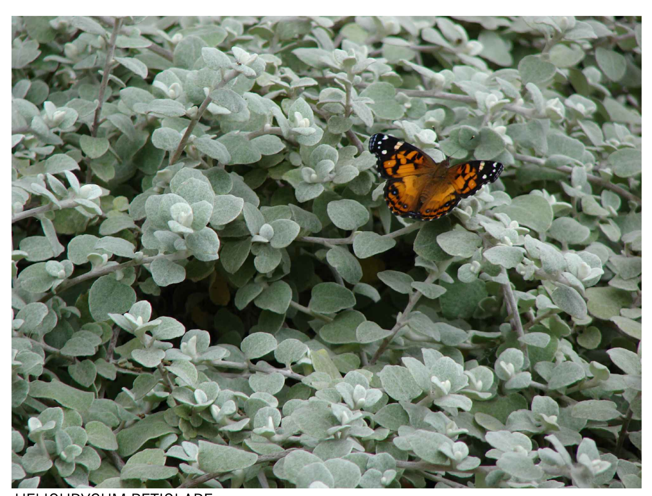

IRIS SIBIRICA 'BUTTER AND SUGAR'
SIBERIAN IRIS


PITTOSPORUM TOBIRA 'CREAM DE MENTHE'
CREAM MENTHE DWARF MOCK ORANANGE


ROSMARINUS OFFICINALIS 'TUSCAN BLUE'
TUSCAN BLUE ROSEMARY


GERANIUM SANGUINEUM
CEDRIC MORRIS


GREVILLEA LANIGERA 'PROSTRATE'
PROSTRATE WOOLLY GREVILLEA


HELICHRYSUM PETIOLARE
LICORICE PLANT


LAVANDULA INTERMEDIA 'PROVENCE'
PROVENCE FRENCH LAVENDER


LEYMUS CONDENSATUS 'CANYON PRINCE'
CANYON PRINCE WILD RYE


LOMANDRA LONGIFOLIA
DWARF MAT RUSH


LIRIOPE GIGANTEA
GIANT LILY TURF


LOROPETALUM CHINENSE
FRINGE FLOWER


WESTRINGIA FRUTICOSA 'BLEU GEM'
BLUE GEM WESTRINGIA


WESTRINGIA FRUTICOSA 'GREY BOX'
GREY BOX WESTRINGIA


WESTRINGIA FRUTICOSA 'MORNING LIGHT'
'MORNING LIGHT WESTRINGIA


MISCANTHUS SINENSIS 'MORNING LIGHT'
MORNING LIGHT MAIDEN GRASS


MYRICA CALIFORNICA
PACIFIC WAX MYRTLE


NEPETA × FAASSENII
CATMINT


ANTIGONON LEPTOPUS
CORAL VINE

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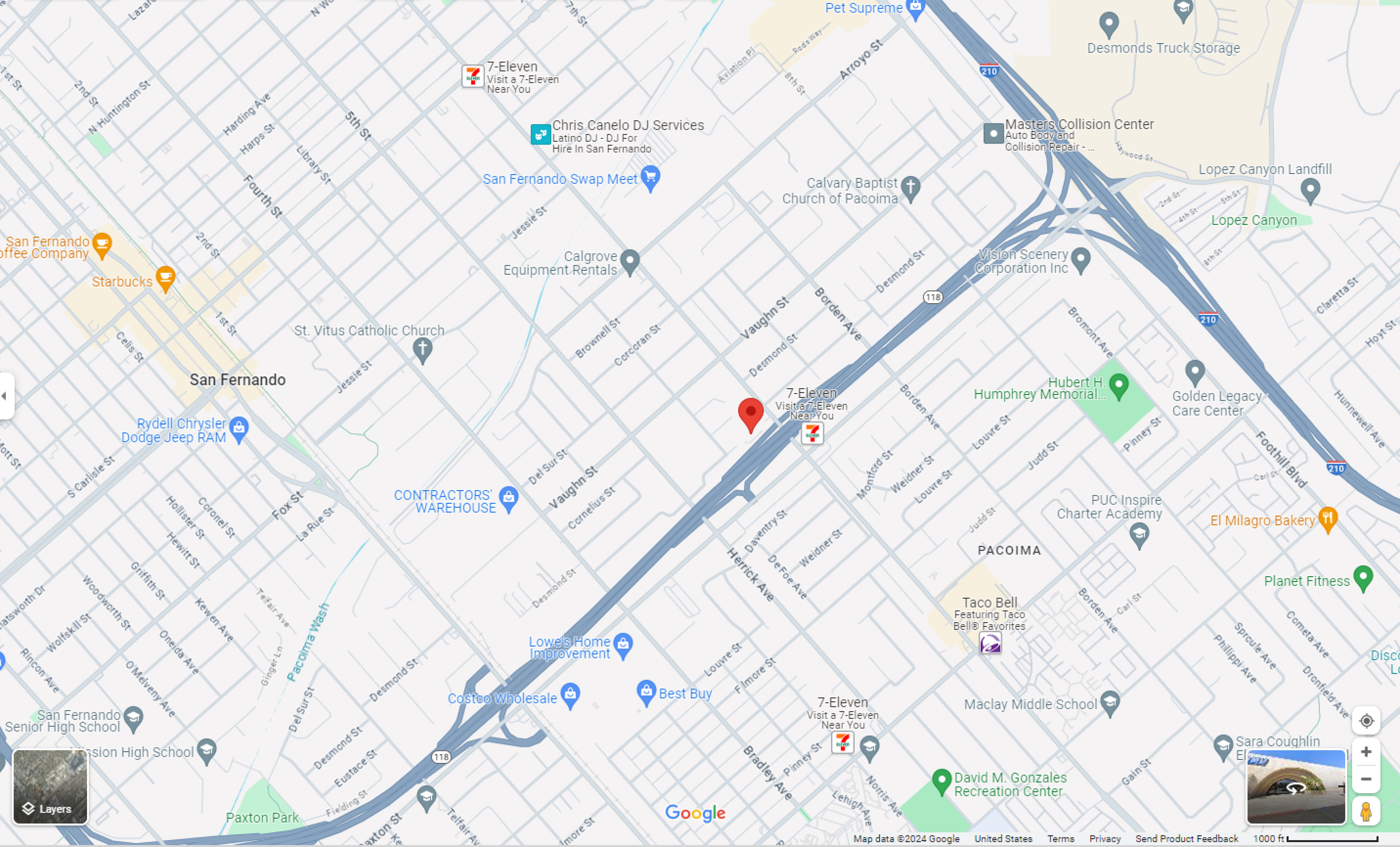
DRAWING BY:	Author
CHK BY:	Checker
DRAWING NO:	

LP 3.0

EXHIBIT B

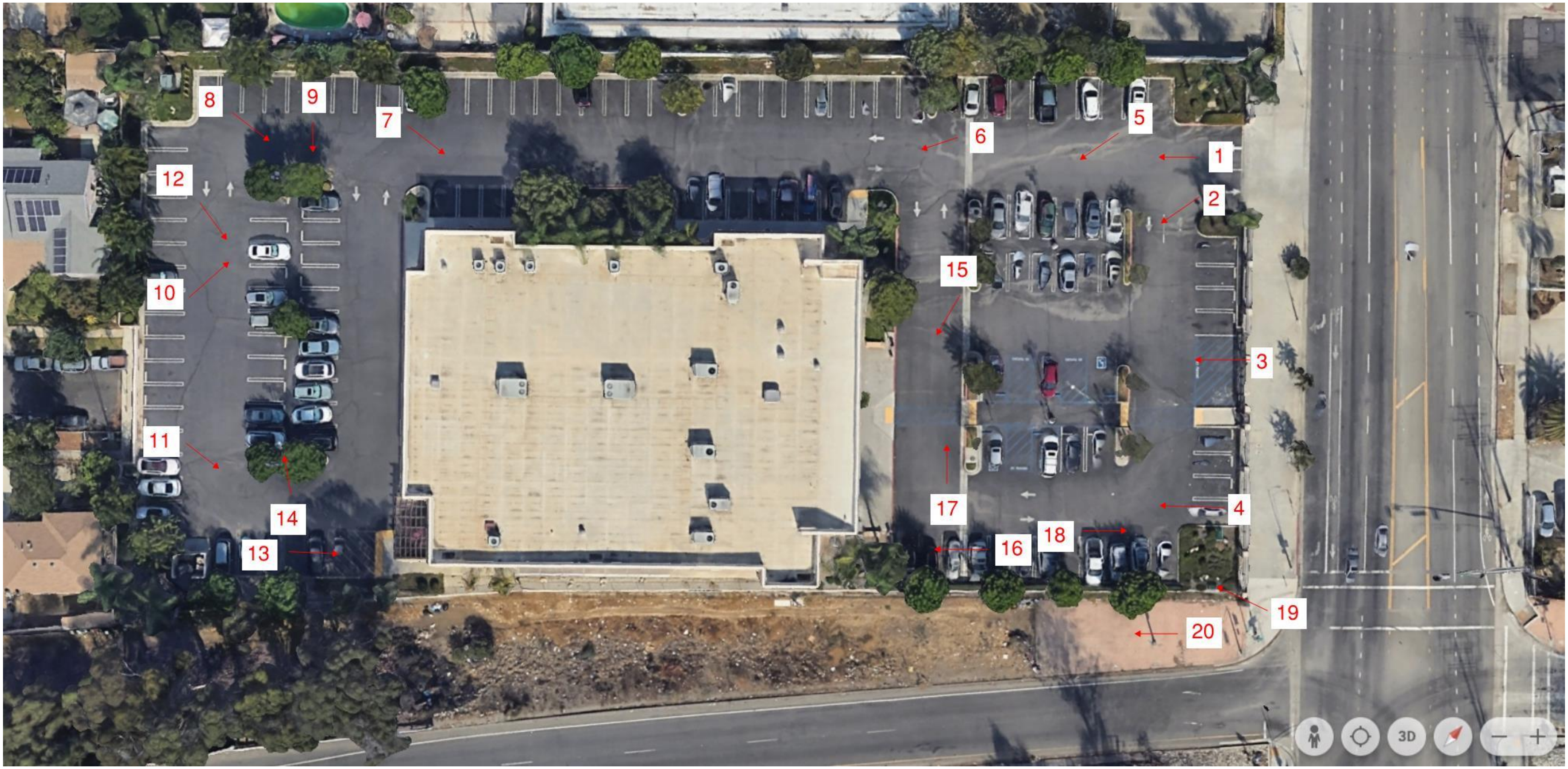
Maps

Vicinity Map
Radius Map
Zoning Map



Pet Supreme
Desmonds Truck Storage
7-Eleven
Visit a 7-Eleven Near You
Chris Canelo DJ Services
Latino DJ - DJ For Hire In San Fernando
Masters Collision Center
Auto Body and Collision Repair - ...
Lopez Canyon Landfill
San Fernando Swap Meet
Calvary Baptist Church of Pacoima
Lopez Canyon
San Fernando Coffee Company
Starbucks
Calgrove Equipment Rentals
Vision Scenery Corporation Inc
St. Vitus Catholic Church
San Fernando
7-Eleven
Visit a 7-Eleven Near You
Hubert H. Humphrey Memorial...
Golden Legacy Care Center
Rydell Chrysler Dodge Jeep RAM
CONTRACTORS' WAREHOUSE
PUC Inspire Charter Academy
El Milagro Bakery
PACOIMA
Planet Fitness
Taco Bell
Featuring Taco Bell® Favorites
Lowe's Home Improvement
Costco Wholesale
Best Buy
Maclay Middle School
7-Eleven
Visit a 7-Eleven Near You
San Fernando Senior High School
Mission High School
Sara Coughlin
David M. Gonzales Recreation Center
Paxton Park
Pacoima Wash
Layers
Google
Map data ©2024 Google
United States
Terms
Privacy
Send Product Feedback
1000 ft
Arroyo St
Vaughn St
Borden Ave
Desmond St
Foothill Blvd
Herrick Ave
Bradley Ave
Fox St
5th St
Fourth St
Harding Ave
Library St
Jessie St
Brownell St
Corcoran St
Del Sur St
Cornelius St
Louvre St
Judd St
Pinney St
Bromont Ave
Hubbard Ave
Daventry St
De Foe Ave
Weidner St
Montford St
Telfair Ave
Eustace St
Fielding St
Paxton St
Norris Ave
Lehigh Ave
Sproule Ave
Phillippi Ave
Cometa Ave
Dronfield Ave
Hunnewell Ave
Claretta St
Hoyt St
Gain St
Filmore St
Carl St
S Carlisle St
Hollister St
Coronel St
Hewitt St
Griffith St
Woodworth St
Kewen Ave
Oneida Ave
O'Melveny Ave
Wolfskill St
Rincon Ave
La Rue St
Celis St
1st St
2nd St
N Huntington St
Harps St
7th St
8th St
Aviation Pl
210
118

Index Map



Photographs

1) View from Glenoaks entrance towards the back of the lot

2) View from Glenoaks entrance towards the freeway

3) View from Glenoaks entrance towards existing structure

4) View from corner of Glenoaks/freeway ramp to structure

5) Corner of Glenoaks/adjacent property to structure/freeway lot

6) Northwest side view of structure towards the back of the

7) Side view of the structure towards Glenoaks entrance

8) Northwest corner view of the structure and lot

9) Northwest corner view of the structure and back of the lot

10) West view towards the north of the back of the lot

11) Southwest corner view of the back of the structure

12) Northwest corner view back of structure/ freeway ramp

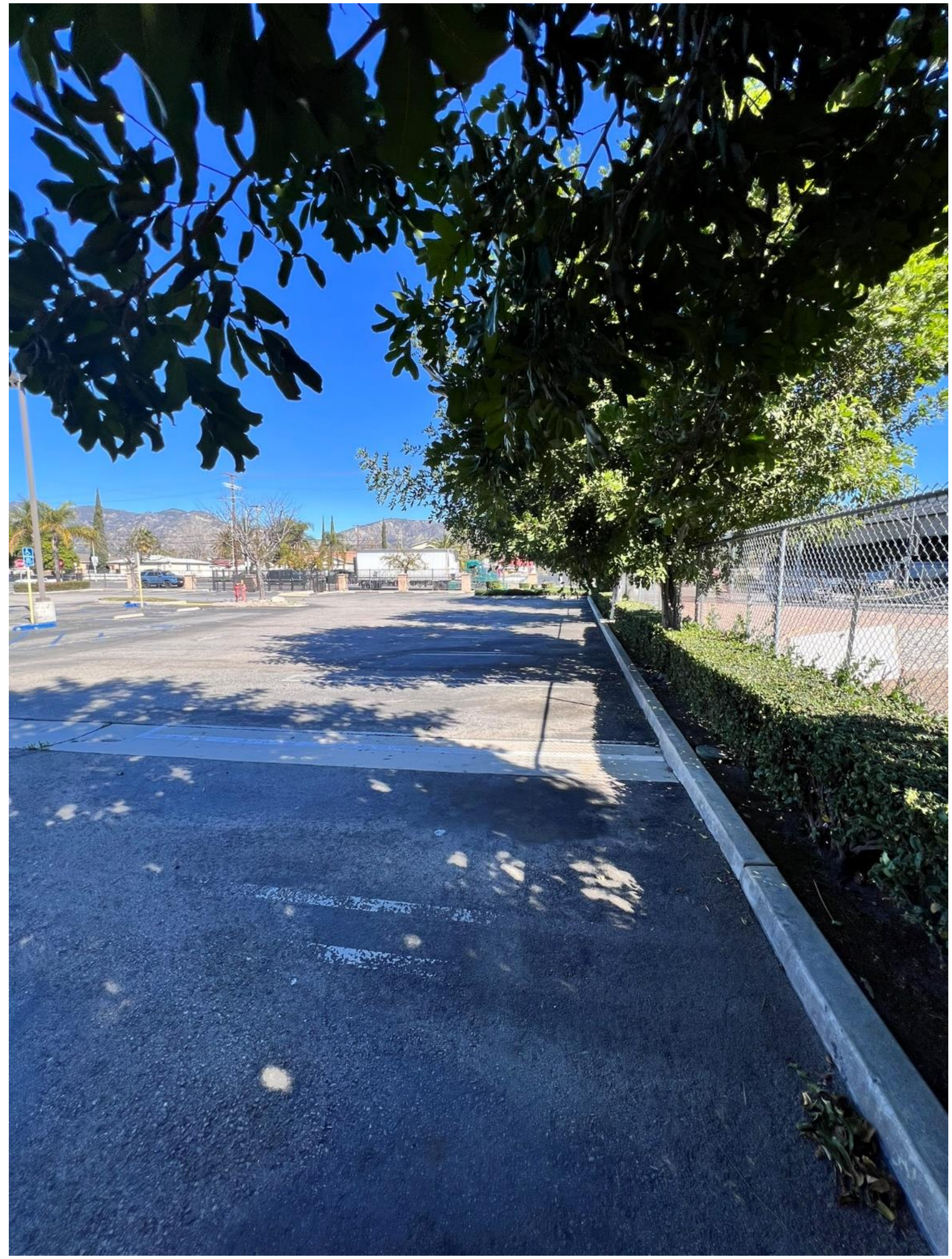
13) Back of the structure towards the front, next to freeway ramp

14) Back of southeast corner towards the north

15) Up close front of the structure towards freeway ramp

16) Front of the structure towards the back, next to freeway

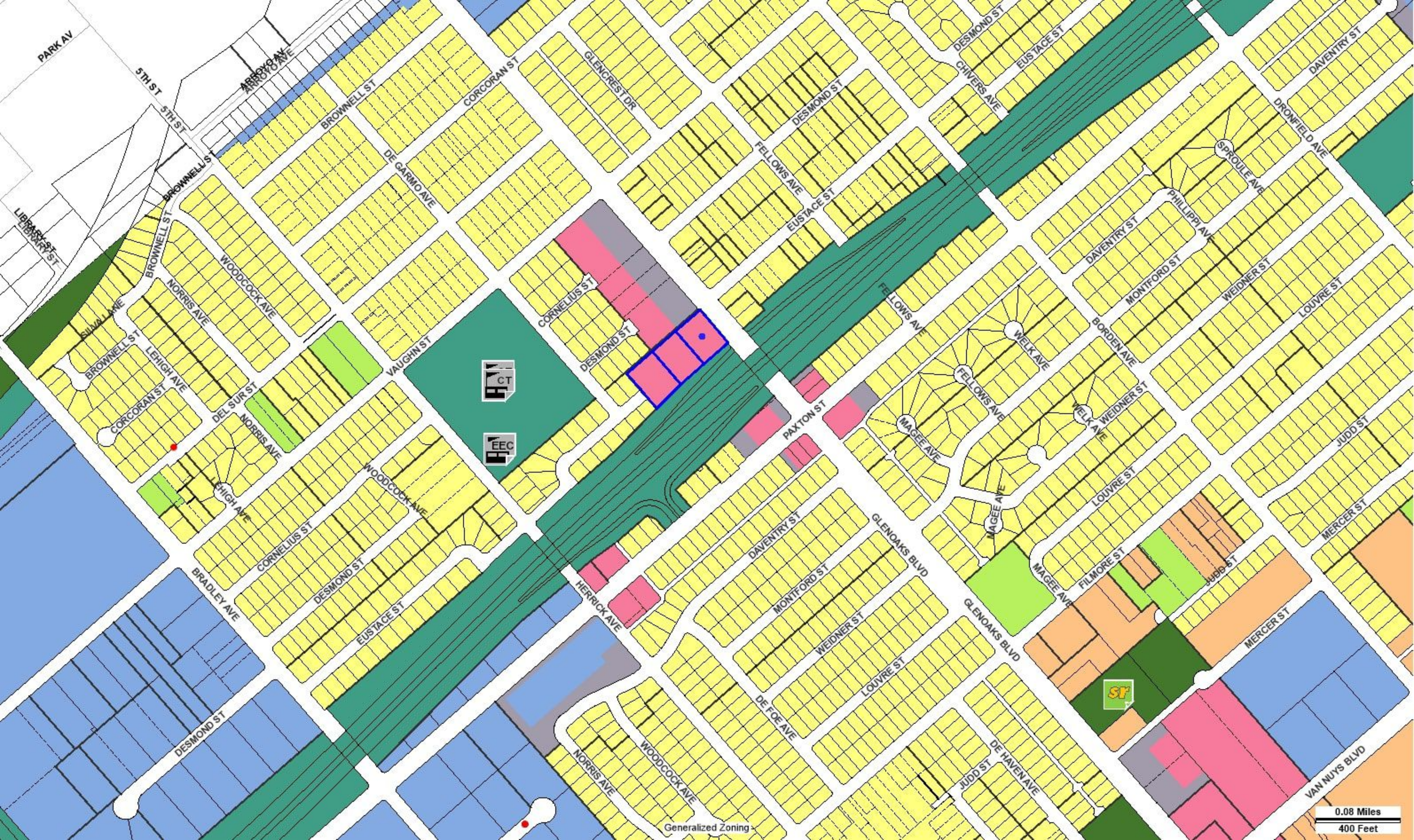
17) Southwest corner, front structure and front parking lot



18) Front of the structure towards entrance on Glenoaks

19) Corner of Glenoaks and freeway ramp to front of lot

20) Side of freeway ramp adjacent to the structure

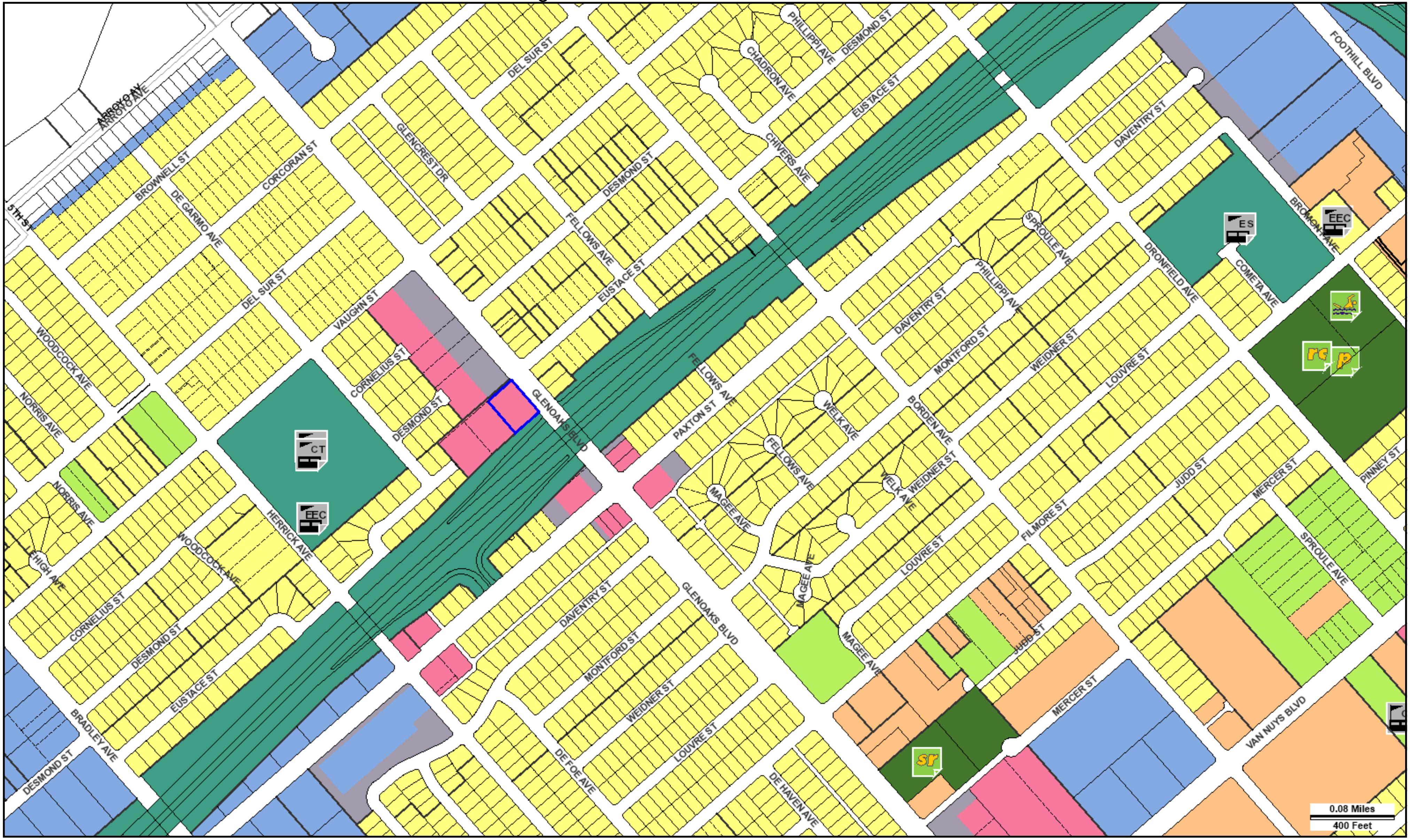

PARK AV
5TH ST
ARROYO AV
ARROYO AVE
BROWNELL ST
LIBRARY ST
CORCORAN ST
GLENCREST DR
DESMOND ST
EUSTACE ST
CHIVERS AVE
DAVENTRY ST
DE GARMO AVE
FELLOWS AVE
DRONFIELD AVE
SPROULE AVE
PHILLIPPI AVE
WOODCOCK AVE
NORRIS AVE
CORNELIUS ST
MONTFORD ST
WEIDNER ST
LOUVRE ST
SILVA LANE
LEHIGH AVE
VAUGHN ST
CT
WELK AVE
BORDEN AVE
DEL SUR ST
PAXTON ST
MAGEE AVE
JUDD ST
EEC
GLENOAKS BLVD
FILMORE ST
MERCER ST
BRADLEY AVE
HERRICK AVE
DE FOE AVE
DE HAVEN AVE
VAN NUYS BLVD
Generalized Zoning
0.08 Miles
400 Feet

ZIMAS PUBLIC

Generalized Zoning

12/27/2023

City of Los Angeles
Department of City Planning



Address: 11623 N GLENOAKS BLVD

APN: 2524023014

PIN #: 213B157 368

Tract: THE MACLAY RANCHO

Block: None

Lot: PT 162

Arb: 15

Zoning: [Q]C2-1-CUGU

General Plan: Neighborhood Office Commercial

EXHIBIT C

Environmental Documents

(ENV-2024-3391-CE)

CITY OF LOS ANGELES
DEPARTMENT OF CITY PLANNING
CITY HALL 200 NORTH SPRING STREET LOS ANGELES CA 90012

CATEGORICAL EXEMPTION – CLASS 32

11623 Glenoaks Boulevard Project

Case Number: ENV-2024-3391-CE
Related Case Numbers: CPC-2024-3390-DB-PR-VHCA

Project Location: 11623 Glenoaks Boulevard

Community Plan Area: Arleta – Pacoima Community Plan

Council District: 7 – Rodriguez

Project Description: The project involves the demolition of an existing commercial (DMV) building and the construction, use, and maintenance of a 7 story, 70-foot mixed-use building including 246 residential units, of which 28 units (11 percent) will be set aside for Very Low Income Household occupancy, and 28,881 square feet of ground floor commercial. The project proposes to provide 320 parking spaces within 2 subterranean levels. In order to permit development of the Project, the City would require approval of the following discretionary actions: (1) Pursuant to LAMC Section 12.22-A,25, a Density Bonus for a Housing Development with a total of 246 units, of which 28 units will be set aside for Very Low Income households, along with the following Off-Menu Incentives and Waiver of Development Standards: a) An off-menu incentive to allow an increase in the Floor Area Ratio (FAR) to 2.322:1 in lieu of the otherwise allowable 1.5:1 in the [Q]C2-1 Zone; b) An off-menu incentive to allow a building height of 70 feet in lieu of the 26-feet, 8-inches otherwise allowed; and c) A waiver of development standards to allow relief from Transitional Height requirements pursuant to LAMC Section 12.21.1-A.10; and (2) Pursuant to LAMC Section 16.05, a Project Review for a project resulting in an increase of 50 or more dwelling units. The project is expected to result in approximately 58,006.5 cubic yards of total grading.

PREPARED BY:
The City of Los Angeles
Department of City Planning

APPLICANT:
Kevin Brunk, 118, LP

November 2024

JUSTIFICATION FOR PROJECT EXEMPTION CASE NO. ENV-2024-3391-CE

The City of Los Angeles determined based on the whole of the administrative record that the project is exempt from California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines, Section 15332, and there is no substantial evidence demonstrating that an exception to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 applies.

The 11623 Glenoaks Boulevard Project (the "Project") is for the demolition of an existing commercial (DMV) building and the construction, use, and maintenance of a 7 story, 70-foot mixed-use building including 246 residential units, of which 28 units (11 percent) will be set aside for Very Low Income Household occupancy, and 28,881 square feet of ground floor commercial. The project proposes to provide 320 parking spaces within 2 subterranean levels. As a housing development project and a project which is characterized as in-fill development, the Project qualifies for the Class 32 Categorical Exemption.

The Project requires the following:

1. Pursuant to LAMC Section 12.22-A,25, a Density Bonus for a Housing Development with a total of 246 units, of which 28 units will be set aside for Very Low Income households, along with the following Off-Menu Incentives and Waiver of Development Standards:

    a. An off-menu incentive to allow an increase in the Floor Area Ratio (FAR) to 2.322:1 in lieu of the otherwise allowable 1.5:1 in the [Q]C2-1 Zone;

    b. An off-menu incentive to allow a building height of 70 feet in lieu of the 26-feet, 8-inches otherwise allowed; and

    c. A waiver of development standards to allow relief from Transitional Height requirements pursuant to LAMC Section 12.21.1-A.10; and

2. Pursuant to LAMC Section 16.05, a Project Review for a project resulting in an increase of 50 or more dwelling units.

<u>Implementation of the California Environmental Quality Act</u>

Pursuant to Section 21084 of the Public Resources Code, the Secretary for the Natural Resources Agency found certain classes of projects not to have a significant effect on the environment and declared them to be categorically exempt from the requirement for the preparation of environmental documents.

The project meets the conditions for a Class 32 Exemption found in CEQA Guidelines, Section 15332 (In-Fill Development Projects), and none of the exceptions to a categorical exemption pursuant to CEQA Guidelines, Section 15300.2 apply.

<u>Conditions for a Class 32 Exemption</u>

A project qualifies for a Class 32 Categorical Exemption if it is developed on an infill site and meets the following criteria:

1) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with the applicable zoning designation and regulations;
2) The proposed developed occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses;
3) The project site has no value as habitat for endangered, rare, or threatened species;
4) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality; and
5) The site can be adequately served by all required utilities and public services.

The Project is located within the Arleta – Pacoima Community Plan which designates the subject property for Neighborhood Office Commercial land uses with corresponding zones of C1.5, C4, C2, C1, CR, RAS3, and P(HD1VL). The subject property is located in the [Q]C2-1-CUGU Zone. The Project is consistent with the applicable general plan land use designation and all applicable general plan policies as well as with the applicable zoning designation and regulations.

The Project site is wholly within the City of Los Angeles, on a site that is approximately 97,453 square feet, or 2.24 acres, in size. Properties to the north are zoned C2-1-CUGU and P-1-CUGU and are developed with a school, commercial strip mall, and church. Properties to the east, across Glenoaks Boulevard, are zoned R1-1-CUGU and are developed with single-family residences. Properties directly adjacent to the west are also zoned R1-1-CUGU and developed with single-family homes, but properties farther west across De Garmo Avenue are zoned PF-1VL-CUGU and is improved as a school. The 118 Ronald Reagan Freeway, zoned PF-1XL-CUGU, directly abuts the project site to the south. Farther south, across the freeway, properties are zoned R1-1-CUGU, [Q]P-1VL-CUGU, and [Q]C2-1VL-CUGU and are developed with single-family residences and retail commercial uses. The site is currently developed with a commercial building and surface parking lot and is surrounded by urban development and therefore is not, and has no value as a habitat for endangered, rare or threatened species. No street tree or protected tree may be removed without prior approval of the Board of Public Works/Urban Forestry (BPW) under LAMC Sections 62.161 - 62.171.

The Project will be subject to Regulatory Compliance Measures (RCMs), which require compliance with the City of Los Angeles Noise Ordinance, pollutant discharge, dewatering, stormwater mitigations, and Best Management Practices for stormwater runoff. These RCMs will ensure the Project will not have significant impacts on noise and water. The Project would not result in any significant effects related to traffic, noise, air quality, or water quality.

- The Project will be subject to Regulatory Compliance Measures, which require compliance with the City of Los Angeles Noise Ordinance, pollutant discharge, dewatering, stormwater conditions, and Best Management Practices for stormwater runoff. These RCMs will ensure the project will not have significant impacts on noise and water.

- A Noise Impact Analysis dated July 2024, was prepared by Douglas Kim + Associates, LLC, for the proposed project indicating that construction and operation activities associated with the development of the proposed Project will result in less than significant impacts.

- An Air Quality Technical Memorandum dated February 2024, was prepared by Douglas Kim + Associates, LLC, for the proposed Project indicating construction and operation emissions associated with the proposed Project will not result in significant air quality impacts.

- The proposed Project would not result in significant transportation impacts. Correspondence with LADOT, dated September 5, 2024, is included in the case file.

- The proposed Project would not result in significant impacts to water quality.

- The proposed Project will not result in the removal of any protected trees.

The Project site will be adequately served by all public utilities and services given that the construction of a 246-unit mixed-use development be on a site which has been previously developed and is consistent with the General Plan. Therefore, the Project meets all the Criteria for the Class 32.

Exceptions to Categorical Exemptions

There are six (6) exceptions to categorical exemptions must be considered in order to find a project exempt from CEQA: (a) Location; (b) Cumulative Impacts; (c) Significant Effect; (d) Scenic Highways; (e) Hazardous Waste Sites; and (f) Historical Resources.

The Project is not located on or near any environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies. Three related projects located with 500 feet were identified and based on the analyses the analyses provided in the *Appendices*, the Project would not result in significant cumulative impacts. The Project would not reasonably result in a significant effect on the environment due to unusual circumstances. The Project is not located near a State Scenic Highway. Furthermore, according to Envirostor and GeoTracker, the State of California's database of Hazardous Waste Sites and Water Resources Control Board, neither the subject site, nor any site in the vicinity is identified as an active hazardous waste site. The Project site has not been identified as a historic resource by local or state agencies, and the project site has not been determined to be eligible for listing in the National Register or Historic Places, California Register of Historical Resources, the Los Angles Historic-Cultural Monuments Register, and/or any local register, and was not found to be a potential historic resource based on the City's HistoricPlacesLA website or SurveyLA, the citywide survey of Los Angeles. Based on this, the project will not result in a substantial adverse change to the significance of a historic resource and this exception does not apply.

APPLICATIONS

TREE DISCLOSURE STATEMENT

Los Angeles Municipal Code (LAMC) Section 46.00 requires disclosure and protection of certain trees located on private and public property, and that they be shown on submitted and approved site plans. Any discretionary application on a property that includes changes to the building footprint or any other change to the areas of the property not currently built upon or paved, including demolition, grading, or fence permit applications, or any discretionary change that could potentially remove or affect trees or shrubs, shall provide a Tree Disclosure Statement completed and signed by the Property Owner.

If the Tree Disclosure Statement indicates that there are any protected trees or protected shrubs on the project site and/or any trees within the adjacent public right-of-way that may be impacted or removed as a result of the project, a Tree Report (CP-4068) will be required, and the field visit must be conducted by a qualified Tree Expert, prepared and conducted within the last 12 months.

Property Address: 11623 Glenoaks Blvd, Pacoima, CA 91331

Date of Field Visit: 1/29/2024

Does the property contain any of the following protected trees or shrubs?

- ☐ **Yes** (Mark any that apply below)
  - ☐ Oak, including Valley Oak (*Quercus lobota*) and California Live Oak (*Quercus agrifolia*) or any other tree of the oak genus indigenous to California, but excluding the Scrub Oak
  - ☐ Southern California Black Walnut (*Juglans californica*)
  - ☐ Western Sycamore (*Platanus racemosa*)
  - ☐ California Bay (*Umbellularia californica*)
  - ☐ Mexican Elderberry (*Sambucus mexicana*)
  - ☐ Toyon (*Heteromeles arbutifolia*)
- ☑ **No**

Does the property contain any street trees in the adjacent public right-of-way?

☑ **Yes** ☐ **No**

Does the project occur within the Mt. Washington/Glassell Park Specific Plan Area and contain any trees 12 inches or more diameter at 4.5 feet above average natural grade at base of tree and/or is more than 35 feet in height?

☐ **Yes** ☑ **No**

Does the project occur within the Coastal Zone and contain any of the following trees?

☐ **Yes** (Mark any that apply below)

- ☐ Blue Gum Eucalyptus *(Eucalyptus globulus)*
- ☐ Red River Gum Eucalyptus *(Eucalyptus camaldulensis)*
- ☐ Other Eucalyptus species

☑ **No**

Have any trees or shrubs been removed in the last two years?

☐ **Yes** ☑ **No**

If Yes, were any protected species (as listed in Ordinance No. 186,873)?

☐ **Yes** ☑ **No**

If Yes, provide permit information: ______________________________

Tree Expert Credentials (if applicable)

Name of Tree Expert: ______________________________

Mark which of the following qualifications apply:

- ☐ Certified arborist with the International Society of Arboriculture who holds a license as an agricultural pest control advisor
- ☐ Certified arborist with the International Society of Arboriculture who is a licensed landscape architect
- ☐ Registered consulting arborist with the American Society of Consulting Arborists

Certification/License No.: ______________________________

Owner's Declaration

I acknowledge and understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Los Angeles Municipal Code Section 46.00, which can lead to criminal and/or civil legal action. I certify that the information provided on this form relating to the project site and any of the above trees and/or biological resources is accurate to the best of my knowledge.

Name of the Owner (Print) J. Kevin Brunk 118, LP

Owner Signature ______________________ Date 1-30-24

AIR QUALITY TECHNICAL REPORT

Introduction

This technical report addresses the air quality impacts generated by construction and operation of a Proposed Project at 11623 North Glenoaks Boulevard in the City of Los Angeles. The analysis evaluates the consistency of the Project with air quality policies set forth in the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP) and the City's General Plan. The analysis of Project-generated air emissions focuses on whether the Project would cause an exceedance of an ambient air quality standard or SCAQMD significance threshold. Calculation worksheets, assumptions, and model outputs used in the analysis are included in the Technical Appendix to this analysis.

Regulatory Framework

Federal

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments in 1990. At the federal level, the United States Environmental Protection Agency (USEPA) is responsible for implementation of some portions of the CAA (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies. In California, the California Clean Air Act (CCAA) is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the National Ambient Air Quality Standard (NAAQS). These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA which are most applicable to the Project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

NAAQS have been established for seven major air pollutants: CO (carbon monoxide), NO_2 (nitrogen dioxide), O_3 (ozone), $PM_{2.5}$ (particulate matter, 2.5 microns), PM_{10} (particulate matter, 10 microns), SO_2 (sulfur dioxide), and Pb (lead).

The CAA requires the USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. Title I provisions are implemented for the purpose of attaining NAAQS. The federal standards are summarized in Table 1. The USEPA has classified the Los Angeles County portion of the South Coast Air Basin (Basin) as a nonattainment area for O_3, $PM_{2.5}$, and Pb.

Table 1
State and National Ambient Air Quality Standards and Attainment Status for LA County

Pollutant	Averaging Period	California Standards	California Attainment Status	Federal Standards	Federal Attainment Status
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Non-attainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	N/A[1]	0.070 ppm (137 µg/m^3)	Non-attainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Non-attainment	150 µg/m^3	Maintenance
	Annual Arithmetic Mean	20 µg/m^3	Non-attainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Non-attainment
	Annual Arithmetic Mean	12 µg/m^3	Non-attainment	12 µg/m^3	Non-attainment
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	Maintenance
	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	Maintenance
Nitrogen Dioxide (NO_2)	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (188 µg/m^3)	Maintenance
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	Maintenance
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm (655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
	24-hour	0.04 ppm (105 µg/m^3)	Attainment	--	--
Lead (Pb)	30-day average	1.5 µg/m^3	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	Non-attainment
Visibility Reducing Particles	8-hour	Extinction of 0.07 per kilometer	N/A	No Federal Standards	
Sulfates	24-hour	25 µg/m^3	Attainment	No Federal Standards	
Hydrogen Sulfide (H_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified	No Federal Standards	
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	N/A	No Federal Standards	

N/A = not available
ppm = parts per million; µg/m^3 – micrograms per cubic meter; mg/m^3 – milligrams per cubic meter
Source: USEPA, NAAQS Table (https://www.epa.gov/criteria-air-pollutants/naaqs-table) and CARB, California Ambient Air Quality Standards (https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards). Attainment status data from CARB, Ambient Air Quality Standards, and attainment status (www.arb.ca.gov/desig/adm/adm.htm).

CAA Title II pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet stricter emission standards established by CARB. USEPA adopted multiple tiers of emission standards to reduce emissions from non-road diesel engines (e.g., diesel-powered construction equipment) by integrating engine and fuel controls as a system to gain the greatest emission reductions. The first federal standards (Tier 1) for new non-road (or off-road) diesel engines were adopted in 1994 for engines over 50 horsepower, to be phased-in from 1996 to 2000. On August 27, 1998, USEPA introduced Tier 1 standards for equipment under 37 kW (50 horsepower) and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. The Tier 1 through 3 standards were met through advanced engine design, with no or only limited use of exhaust gas after-treatment (oxidation catalysts). Tier 3 standards for NO_X and hydrocarbon are similar in stringency to the 2004 standards for highway engines. However, Tier 3 standards for particulate matter were never adopted. On May 11, 2004, USEPA signed the final rule introducing Tier 4 emission standards, which were phased-in between 2008 and 2015. The Tier 4 standards require that emissions of particulate matter and NO_X be further reduced by about 90 percent. Such emission reductions are achieved through the use of control technologies—including advanced exhaust gas after-treatment.

State

California Clean Air Act. In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the CCAA. In California, CCAA is administered by CARB at the state level and by the air quality management districts and air pollution control districts at the regional and local levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the state requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in Table 1.

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS thresholds have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the non-desert Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$.

In August 2022, CARB approved regulations to ban new gasoline-powered cars beginning with 2035 models. Automakers will gradually electrify their fleet of new vehicles, beginning with 35 percent of 2026 models sold. In March 2023, USEPA approved CARB’s regulations that mandate that all new medium- and heavy-duty trucks would be zero emissions by 2045 where feasible. Trucking companies would also have to gradually convert their existing fleets to zero emission vehicles.

CARB has further required that all small (25 horsepower and below) off-road engines that are spark-ignited (e.g., lawn and gardening equipment) must be zero emission starting in model year 2024. Standards for portable generators and large pressure washers were given until model year 2028 to be electric-powered.

<u>Toxic Air Contaminant Identification and Control Act.</u> The public’s exposure to toxic air contaminants (TACs) is a significant public health issue in California. CARB’s statewide comprehensive air toxics program was established in the early 1980s. The Toxic Air Contaminant Identification and Control Act created California's program to reduce exposure to air toxics. Under the Toxic Air Contaminant Identification and Control Act, CARB is required to use certain criteria in the prioritization for the identification and control of air toxics. In selecting substances for review, CARB must consider criteria relating to "the risk of harm to public health, amount or potential amount of emissions, manner of, and exposure to, usage of the substance in California, persistence in the atmosphere, and ambient concentrations in the community" [Health and Safety Code Section 39666(f)].

The Toxic Air Contaminant Identification and Control Act also requires CARB to use available information gathered from the Air Toxics "Hot Spots" Information and Assessment Act program to include in the prioritization of compounds. CARB identified particulate emissions from diesel-fueled engines (diesel PM) TACs in August 1998. Following the identification process, CARB was required by law to determine if there is a need for further control, which led to the risk management phase of the program. For the risk management phase, CARB formed the Diesel Advisory Committee to assist in the development of a risk management guidance document and a risk reduction plan. With the assistance of the Diesel Advisory Committee and its subcommittees, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles and the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines. CARB approved these documents on September 28, 2000, paving the way for the next step in the regulatory process: the control measure phase. During the control measure phase, specific Statewide regulations designed to further reduce diesel PM emissions from diesel-fueled engines and vehicles have and continue to be evaluated and developed. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions. Breathing H_2S at levels above the State standard could result in exposure to a disagreeable rotten eggs odor. The State does not regulate other odors.

<u>California Air Toxics Program.</u> The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances

in the air.[1] In the risk identification step, CARB and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. Since inception of the program, a number of such substances have been listed, including benzene, chloroform, formaldehyde, and particulate emissions from diesel-fueled engines, among others.[2] In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures (ATCMs), both for mobile and stationary sources. In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, CARB adopted regulations on July 26, 2007 for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models. In April 2021, CARB proposed a 2020 Mobile Source Strategy that seeks to move California to 100 percent zero-emission off-road equipment by 2035.

<u>Assembly Bill 2588 Air Toxics "Hot Spots" Program.</u> The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

<u>Air Quality and Land Use Handbook: A Community Health Perspective.</u> The *Air Quality and Land Use Handbook: A Community Health Perspective* provides important air quality information about certain types of facilities (e.g., freeways, refineries, rail yards, ports) that should be considered when siting sensitive land uses such as residences.[3] CARB provides recommended site distances from certain types of facilities when considering siting new sensitive land uses. The recommendations are advisory and should not be interpreted as defined "buffer zones." If a project is within the siting distance, CARB recommends further analysis.

Where possible, CARB recommends a minimum separation between new sensitive land uses and existing sources. Some examples of CARB's siting recommendations include the following: (1) avoid

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1 California Air Resources Board, California Air Toxics Program, https://ww2.arb.ca.gov/our-work/programs/air-toxics-program, last reviewed by CARB September 24, 2015.

2 California Air Resources Board, Toxic Air Contaminant Identification List, https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants.

3 California Air Resources Board, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.

siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

California Code of Regulations. The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in CCR Title 13 states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) used during construction shall be limited to five minutes at any location. In addition, Section 93115 in CCR Title 17 states that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Regional (South Coast Air Quality Management District)

The SCAQMD was created in 1977 to coordinate air quality planning efforts throughout Southern California. SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain the CAAQS and NAAQS in the district. SCAQMD has jurisdiction over an area of 10,743 square miles consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin portion of SCAQMD's jurisdiction covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles (including the Project Area), Riverside, and San Bernardino counties.

Programs that were developed by SCAQMD to attain and maintain the CAAQS and NAAQS include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases. However, SCAQMD has primary authority over about 20 percent of NO_x emissions, a precursor to ozone formation. All projects in the SCAQMD jurisdiction are subject to SCAQMD rules and regulations, including, but not limited to the following:

- SCAQMD Rule 402, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials 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, would reduce the amount of particulate matter entrained in ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

- SCAQMD Rule 431.2, would require use of low-sulfur fuel in construction equipment.

- SCAQMD Rule 445 would prohibit the inclusion of wood burning fireplaces in any residences.

- SCAQMD Rule 1113, which limits the volatile organic compound (VOC) content of architectural coatings.

- In accordance with Section 2485 in Title 13 of the CCR, the idling of all diesel-fueled commercial vehicles (with gross vehicle weight over 10,000 pounds) during construction would be limited to five minutes at any location.

- In accordance with Section 93115 in Title 17 of the CCR, operation of any stationary, diesel-fueled, compression-ignition engines would meet specific fuel and fuel additive requirements and emissions standards.

Air Quality Management Plan. SCAQMD adopted the 2022 Air Quality Management Plan (AQMP) on December 2, 2022, updating the region's air quality attainment plan to address the "extreme" ozone non-attainment status for the Basin and the severe ozone non-attainment for the Coachella Valley Basin by laying a path for attainment by 2037. This includes reducing NOx emissions by 67 percent more than required by adopted rules and regulations in 2037. The AQMP calls on strengthening many stationary source controls and addressing new sources like wildfires, but still concludes that the region will not meet air quality standards without a significant shift to zero emission technologies and significant federal action. The 2022 AQMP relies on the growth assumptions in the Southern California Association of Governments' (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Multiple Air Toxics Exposure Study V. To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study V, released in August 2021.[4] The report included refinements in aircraft and recreational boating emissions and diesel conversion factors. It finds a Basin average cancer risk of 455 in a million (population-weighted, multi-pathway), which represents a decrease of 54 percent compared to the estimate in MATES IV. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by computer modeling that estimated the risk of cancer from breathing toxic air pollution based on emissions and weather data. About 88 percent of the risk is attributed to emissions associated with mobile sources, with the remainder attributed to toxics emitted from stationary sources, which include large industrial operations, such as refineries and metal processing facilities, as well as smaller businesses such as gas stations and chrome plating facilities. The results indicate that diesel PM is the largest contributor to air toxics risk, accounting on average for about 50 percent of the total risk.

Regional (Southern California Association of Governments)

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with air quality and transportation stakeholders in Southern California to ensure compliance with federal and state air quality requirements, including the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally designated Metropolitan Planning Organization (MPO) for the six-county

[4] South Coast Air Quality Management District, MATES-V Study. https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v

Southern California region, SCAG is required by law to ensure that transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. In addition, SCAG is a co-producer, with the SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Air Basin.

SCAG adopted the 2020-2045 RTP/SCS on September 23, 2020. The RTP/SCS addresses the transportation and air quality impacts of 3.7 million additional residents, 1.6 additional households, and 1.6 million additional jobs from 2016 to 2045. The Plan calls for $639 billion in transportation investments and reducing vehicle miles traveled (VMT) by 19 percent per capita from 2005 to 2035. The updated plan accommodates 21.3 percent growth in population from 2016 (3,933,800) to 2045 (4,771,300) and a 15.6 percent growth in jobs from 2016 (1,848,300) to 2045 (2,135,900). The regional plan projects several benefits:

- Decreasing drive-along work commutes by three percent
- Reducing per capita VMT by five percent and vehicle hours traveled per capita by nine percent
- Increasing transit commuting by two percent
- Reducing travel delay per capita by 26 percent
- Creating 264,500 new jobs annually
- Reducing greenfield development by 29 percent by focusing on smart growth
- Locating six more percent household growth in High Quality Transit Areas (HQTAs), which concentrate roadway repair investments, leverage transit and active transportation investments, reduce regional life cycle infrastructure costs, improve accessibility, create local jobs, and have the potential to improve public health and housing affordability.
- Locating 15 percent more jobs in HQTAs
- Reducing $PM_{2.5}$ emissions by 4.1 percent
- Reducing greenhouse gas (GHG) emissions by 19 percent by 2035

Local (City of Los Angeles)

City of Los Angeles General Plan Air Quality Element. The Air Quality Element of the City's General Plan was adopted on November 24, 1992, and sets forth the goals, objectives, and policies, which guide the City in the implementation of air quality improvement programs and strategies. The Air Quality Element acknowledges the interrelationships among transportation and land use planning in meeting the City's mobility and air quality goals.

The Air Quality Element includes six key goals:

Goal 1: Good air quality in an environment of continued population growth and healthy economic structure.

Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.

Goal 3: Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand management techniques.

Goal 4: Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting.

Goal 6: Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

Clean Up Green Up Ordinance. The City of Los Angeles adopted a Clean Up Green Up Ordinance (Ordinance Numbers 184245 and 184246) on April 13, 2016, which includes provisions related to ventilation system filter efficiency in mechanically ventilated buildings. This ordinance added Sections 95.314.3 and 99.04.504.6 to the Los Angeles Municipal Code (LAMC) and amended Section 99.05.504.5.3 to implement building standards and requirements to address cumulative health impacts resulting from incompatible land use patterns.

All-Electric Ordinance. On November 29, 2022, the City adopted Ordinance 187714, which requires all development to be powered by electric appliances and infrastructure with the exception of any cooking equipment associated with any restaurants or eating facilities and any gas-powered emergency backup systems.[5] This will reduce VOC and other emissions from long-term operation of new development.

California Environmental Quality Act. In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of development proposals within its jurisdiction.

Land Use Compatibility. In November 2012, the Los Angeles City Planning Commission (CPC) issued an advisory notice (Zoning Information 2427) regarding the siting of sensitive land uses within 1,000 feet of freeways. The CPC deemed 1,000 feet to be a conservative distance to evaluate projects that house populations considered to be more at-risk from the negative effects of air pollution caused by freeway proximity. The CPC advised that applicants of projects requiring discretionary approval, located within 1,000 feet of a freeway and contemplating residential units and other sensitive uses (e.g., hospitals, schools, retirement homes) perform a Health Risk Assessment (HRA). The Project Site is 120 feet north of the southwest-bound mainline of the Ronald Reagan Freeway (SR-118).

On April 12, 2018, the City updated its guidance on siting land uses near freeways, resulting in an updated Advisory Notice effective September 17, 2018 requiring all proposed projects within 1,000 feet of a freeway adhere to the Citywide Design Guidelines, including those that address freeway proximity. It also recommended that projects consider avoiding location of sensitive uses like schools, day care facilities, and senior care centers in such projects, locate open space areas as far from the freeway, locate non-habitable uses (e.g., parking structures) nearest the freeway, and screen project sites with substantial vegetation and/or a wall barrier. Requirements for preparing HRAs were removed.

Existing Conditions

Pollutants and Effects

5 City of Los Angeles, Ordinance 187714. https://clkrep.lacity.org/onlinedocs/2022/22-0151_ord_187714_1-23-23.pdf; November 29, 2022.

Air quality is defined by ambient air concentrations of seven specific pollutants identified by the USEPA to be of concern with respect to health and welfare of the general public. These specific pollutants, known as "criteria air pollutants," are defined as pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include carbon monoxide (CO), ground-level ozone (O_3), nitrogen oxides (NO_X), sulfur oxides (SO_X), particulate matter ten microns or less in diameter (PM_{10}), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), and lead (Pb). The following descriptions of each criteria air pollutant and their health effects are based on information provided by the SCAQMD.[6]

Carbon Monoxide (CO). CO is primarily emitted from combustion processes and motor vehicles due to incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Ozone (O_3). O_3 is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of O_3 irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Nitrogen Dioxide (NO_2). NO_2 is a byproduct of fuel combustion and major sources include power plants, large industrial facilities, and motor vehicles. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), which reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. Nitrogen oxides irritate the nose and throat, and increase one's susceptibility to respiratory infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

Sulfur Dioxide (SO_2). Sulfur oxides (SO_X) are compounds of sulfur and oxygen molecules. SO_2 is the pre- dominant form found in the lower atmosphere and is a product of burning sulfur or burning materials that contain sulfur. Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of sulfur dioxide aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of sulfur dioxide, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Particulate Matter (PM_{10} and $PM_{2.5}$). The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than 10 microns (PM_{10}), and even smaller particles with an aerodynamic diameter equal to or less than 2.5 microns

6 South Coast Air Quality Management District, Final Program Environmental Impact Report for the 2012 AQMP, December 7, 2012.

($PM_{2.5}$), can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates can potentially aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates can become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Lead (Pb). Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing the metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

State-Only Criteria Pollutants

Visibility-Reducing Particles. Deterioration of visibility is one of the most obvious manifestations of air pollution and plays a major role in the public's perception of air quality. Visibility reduction from air pollution is often due to the presence of sulfur and NO_X, as well as PM.

Sulfates (SO_4^{2-}). Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide (H_2S). H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the state standard could result in exposure to a very disagreeable odor.

Vinyl Chloride. Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified as a known carcinogen by the American Conference of Governmental Industrial Hygienists and the International Agency for Research on Cancer. At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored at cooler temperatures as a liquid. Due to the hazardous nature of vinyl chloride to human health, there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles. Vinyl chloride emissions are historically associated primarily with landfills.

Toxic Air Contaminants (TACs)

TACs refer to a diverse group of “non-criteria” air pollutants that can affect human health but have not had ambient air quality standards established for them. This is not because they are fundamentally different from the pollutants discussed above but because their effects tend to be local rather than regional. TACs are classified as carcinogenic and noncarcinogenic, where carcinogenic TACs can cause cancer and noncarcinogenic TAC can cause acute and chronic impacts to different target organ systems (e.g., eyes, respiratory, reproductive, developmental, nervous, and cardiovascular). CARB and OEHHA determine if a substance should be formally identified, or “listed,” as a TAC in California. A complete list of these substances is maintained on CARB’s website.[7]

Diesel particulate matter (DPM), which is emitted in the exhaust from diesel engines, was listed by the state as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (diameter less than 2.5 micrometer (μm)), including a subgroup of ultrafine particles (diameter less than 0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to DPM may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. DPM levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, DPM exposure may lead to the following adverse health effects: (1) aggravated asthma; (2) chronic bronchitis; (3) increased respiratory and cardiovascular hospitalizations; (4) decreased lung function in children; (5) lung cancer; and (6) premature deaths for people with heart or lung disease.[8,9]

Project Site

The Project Site is located within the South Coast Air Basin (the Basin); named so because of its geographical formation is that of a basin, with the surrounding mountains trapping the air and its pollutants in the valleys or basins below. The 6,745-square-mile Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. It is bounded 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. Ambient pollution concentrations recorded in Los Angeles County portion of the Basin are among the highest in the four counties comprising the Basin. USEPA has classified Los Angeles County as nonattainment areas for O_3, $PM_{2.5}$, and lead. This classification denotes that the Basin does not meet the NAAQS for these pollutants. In addition, under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The air quality within the Basin is primarily influenced by a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, industry, and meteorology.

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7 California Air Resources Board, Toxic Air Contaminant Identification List, https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants.

8 California Air Resources Board, Overview: Diesel Exhaust and Health, www.arb.ca.gov/research/diesel/diesel-health.htm, last reviewed by CARB April 12, 2016.

9 California Air Resources Board, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008.

Air pollutant emissions are generated in the local vicinity by stationary and area-wide sources, such as commercial activity, space and water heating, landscaping maintenance, consumer products, and mobile sources primarily consisting of automobile traffic.

Air Pollution Climatology. The topography and climate of Southern California combine to make the Basin an area of high air pollution potential. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cooler surface layer which inhibits the pollutants from dispersing upward. Light winds during the summer further limit ventilation. Additionally, abundant sunlight triggers photochemical reactions which produce O_3 and the majority of particulate matter.

Air Monitoring Data. The SCAQMD monitors air quality conditions at 38 source receptor areas (SRA) throughout the Basin. The Project Site is located in SCAQMD's East San Fernando Valley receptor area. Historical data from the area was used to characterize existing conditions in the vicinity of the Project area. Table 2 shows pollutant levels, State and federal standards, and the number of exceedances recorded in the area from 2020 through 2022. The one-hour State standard for O_3 was exceeded 16 times during this three-year period, including fourteen times in 2020. The federal standard was exceeded 31 times in that same period. In addition, the daily State standard for PM_{10} was exceeded 201 times. The daily federal standard for $PM_{2.5}$ was exceeded 15 times. CO and NO_2 levels did not exceed the CAAQS from 2020 to 2022 for 1-hour (and 8-hour for CO).

Table 2
Ambient Air Quality Data

Pollutants and State and Federal Standards	Maximum Concentrations and Frequencies of Exceedance Standards		
	2020	2021	2022
Ozone (O_3)			
Maximum 1-hour Concentration (ppm)	0.185	0.099	0.138
Days > 0.09 ppm (State 1-hour standard)	14	1	1
Days > 0.070 ppm (Federal 8-hour standard)	22	2	6
Carbon Monoxide (CO_2)			
Maximum 1-hour Concentration (ppm)	1.9	2.0	1.7
Days > 20 ppm (State 1-hour standard)	0	0	0
Maximum 8-hour Concentration (ppm)	1.5	1.6	1.5
Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.0618	0.0778	0.0751
Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM_{10}			
Maximum 24-hour Concentration (µg/m^3)	77	64	60
Days > 50 µg/m^3 (State 24-hour standard)	24	3	4
$PM_{2.5}$			
Maximum 24-hour Concentration (µg/m^3)	47.3	61.0	33.7
Days > 35 µg/m^3 (Federal 24-hour standard)	2	12	0
Sulfur Dioxide (SO_2)			
Maximum 1-hour Concentration (ppb)	3.8	2.2	6.5
Days > 0.25 ppm (State 1-hour standard)	0	0	0

ppm = parts by volume per million of air.
μg/m³ = micrograms per cubic meter.
N/A = not available at this monitoring station.
Source: SCAQMD annual monitoring data at East San Fernando Valley subregion (http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year) accessed February 12, 2024.

Existing Health Risk in the Surrounding Area. Based on the MATES-V model, the calculated cancer risk in the Project area (zip code 91331) is approximately 457 in a million.[10] The cancer risk in this area is predominantly influenced by nearby sources of diesel particulate matter (e.g., diesel trucks and traffic on the Ronald Reagan Freeway 120 feet to the south). In general, the risk at the Project Site is higher than 48 percent of the population across the South Coast Air Basin.

The Office of Environmental Health Hazard Assessment, on behalf of the California Environmental Protection Agency (CalEPA), provides a screening tool called CalEnviroScreen that can be used to help identify California communities disproportionately burdened by multiple sources of pollution. According to CalEnviroScreen, the Project Site (Census tract 6037104310) is located in the 94th percentile, which means the Project Site has an overall environmental pollution burden higher than at least 94 percent of other communities within California.[11]

Sensitive Receptors. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. CARB has identified several groups that are most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The Project Site is located in the Pacoima neighborhood near the Ronald Reagan Freeway. Sensitive receptors within 0.25 miles of the Project Site include, but are not limited to, the following representative sampling:

- Residences, Eustace Street; as close as five feet southwest of the Project Site.
- Residences, Desmond Street; as close as 40 feet northwest of the Project Site.
- Residences, Glenoaks Boulevard (northeast side); 140 feet northeast of the Project Site.
- Middle School, 13223 Eustace Street; 180 feet southwest of the Project Site.
- Residences – Paxton Street; as close as 390 feet southeast of the Project Site.

Existing Project Site Emissions. The Project Site is a former Department of Motor Vehicles facility that is vacant. As such, there are no anthropogenic emissions of criteria pollutants from the Project Site.

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10 South Coast Air Quality Management District, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-V), MATES V Interactive Carcinogenicity Map, 2021, https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/home/?data_id=dataSource_105-a5ba9580e3aa43508a793fac819a5a4d%3A26&views=view_39%2Cview_1, accessed February 12, 2024.

11 Office of Environmental Health Hazard Assessment, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, accessed February 12, 2024.

Project Impacts

Methodology

The air quality analysis conducted for the Project is consistent with the methods described in the SCAQMD CEQA Air Quality Handbook (1993 edition), as well as the updates to the CEQA Air Quality Handbook, as provided on the SCAQMD website. The SCAQMD recommends the use of the California Emissions Estimator Model (CalEEMod) as a tool for quantifying emissions of air pollutants that will be generated by constructing and operating development projects. The analyses focus on the potential emissions from construction and operation of the Project. Methodologies used to evaluate these emissions are discussed below.

<u>Construction.</u> Sources of air pollutant emissions associated with construction activities include heavy-duty off-road diesel equipment and vehicular traffic to and from the Project construction site. Where available, project-specific information was provided on the schedule of construction activities and the anticipated equipment inventory. Otherwise, model default values were used for equipment usage rates, worker trip lengths, emission factors for heavy-duty equipment, passenger vehicles, and haul trucks that have been derived by CARB. Maximum daily emissions were quantified for each construction activity based on the number of equipment and daily hours of use, in addition to vehicle trips to and from the Project Site. Details pertaining to the schedule and equipment can be found in the Technical Appendix to this analysis.

The SCAQMD recommends that air pollutant emissions be assessed for both regional scale and localized impacts. The regional emissions analysis includes both on-site and off-site sources of emissions, while the localized emissions analysis focuses only on sources of emissions that would be located on the Project Site.

Localized impacts were analyzed in accordance with the SCAQMD Localized Significance Threshold (LST) methodology.[12] The localized effects from on-site portion of daily emissions were evaluated at sensitive receptor locations potentially impacted by the Project according to the SCAQMD's LST methodology, which uses on-site mass emission look-up tables and Project-specific modeling, where appropriate.[13] SCAQMD provides LSTs applicable to the following criteria pollutants: NO_X, CO, PM_{10}, and $PM_{2.5}$. SCAQMD does not provide an LST for SO_2 since land use development projects typically result in negligible construction and long-term operation emissions of this pollutant. Since VOCs are not a criteria pollutant, there is no ambient standard or SCAQMD LST for VOCs. Due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. SCAQMD provides LST mass rate look-up tables for projects with active

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12 South Coast Air Quality Management District, Final Localized Significance Methodology, revised July 2008.

13 South Coast Air Quality Management District, LST Methodology Appendix C-Mass Rate LST Look-Up Table, https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2, October 2009.

construction areas that are less than or equal to five acres. If the project exceeds the LST look-up values, then the SCAQMD recommends that project-specific air quality modeling must be performed. Please refer to **Threshold b** below, for the analysis of localized impacts from on-site construction activities. In accordance with SCAQMD guidance, maximum daily emissions of NO_X, CO, PM_{10}, and $PM_{2.5}$ from on-site sources during each construction activity were compared to LST values for a two-acre site having sensitive receptors within 25 meters (82 feet).[14] This is appropriate given the 2.33-acre site and the proximity of sensitive receptors as close as five feet from the Project Site.

The Basin is divided into 38 SRAs, each with its own set of maximum allowable LST values for on-site emissions sources during construction and operations based on locally monitored air quality. Maximum on-site emissions resulting from construction activities were quantified and assessed against the applicable LST values.

The significance criteria and analysis methodologies in the SCAQMD's CEQA Air Quality Handbook were used in evaluating impacts in the context of the CEQA significance criteria listed below. The SCAQMD LSTs for NO_2, CO, and PM_{10} were initially published in June 2003 and revised in July 2008.[15] The LSTs for $PM_{2.5}$ were established in October 2006 and updated on October 21, 2009.[16][17] Table 3 presents the significance criteria for both construction and operational emissions.

Table 3
SCAQMD Emissions Thresholds

Criteria Pollutant	Construction Emissions		Operation Emissions	
	Regional	Localized /a/	Regional	Localized /a/
Volatile Organic Compounds (VOC)	75	--	55	--
Nitrogen Oxides (NO_X)	100	114	55	114
Carbon Monoxide (CO)	550	786	550	786
Sulfur Oxides (SO_X)	150	--	150	--
Respirable Particulates (PM_{10})	150	7	150	2
Fine Particulates ($PM_{2.5}$)	55	4	55	1

/a/ Localized significance thresholds assumed a two-acre and 25-meter (82-foot) receptor distance in the East San Fernando Valley source receptor area. The SCAQMD has not developed LST values for VOC or SO_X. Pursuant to SCAQMD guidance, sensitive receptors closer than 25 meters to a construction site are to use the LSTs for receptors at 25 meters (SCAQMD Final Localized Significance Threshold Methodology, June 2008).

Source: SCAQMD, South Coast AQMD Air Quality Significance Thresholds, 2019

14 South Coast Air Quality Management District, Fact Sheet for Applying CalEEMod to Localized Significance Thresholds, https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf, 2008.

15 Ibid.

16 South Coast Air Quality Management District, Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf, October 2006.

17 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology Appendix C – Mass Rate LST Look-Up Tables, https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2, October 21, 2009.

Operations. CalEEMod also generates estimates of daily and annual emissions of air pollutants resulting from future operation of a project. Operational emissions are produced by mobile sources (vehicular travel) and stationary sources (e.g., utilities demand). Utilities for the Project Site are provided by the Los Angeles Department of Water and Power (LADWP) for electricity and Southern California Gas for natural gas, where applicable. CalEEMod has derived default emissions factors for electricity and natural gas use that are applied to the size and land use type of the Project. CalEEMod also estimates operational emissions associated with water use, wastewater generation, and solid waste disposal.

Similar to construction, SCAQMD's CalEEMod software was used for the evaluation of Project emissions during operation. CalEEMod was used to calculate on-road fugitive dust, architectural coatings, landscape equipment, energy use, mobile source, and stationary source emissions.[18] To determine if a significant air quality impact would occur, the net increase in regional and local operational emissions generated by the Project was compared against SCAQMD's significance thresholds.[19] Details describing the operational emissions of the Project can be found in in the Technical Appendix.

Toxic Air Contaminants Impacts (Construction and Operations). Potential TAC impacts are evaluated by conducting a qualitative analysis consistent with the CARB Handbook followed by a more detailed analysis (i.e., dispersion modeling), as necessary. The qualitative analysis consists of reviewing the Project to identify any new or modified TAC emissions sources. If the qualitative evaluation does not rule out significant impacts from a new source, or modification of an existing TAC emissions source, a more detailed analysis is conducted.

Thresholds of Significance

State CEQA Guidelines Appendix G

Would the Project:

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

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

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18 Energy consumption estimates with CalEEMod 2022.1.1.21 are based on the California Energy Commission's 2020 Residential Appliance Saturation Survey (residential uses) and 2021 Commercial Forecast database, both of which reflected the 2019 Title 24 energy efficiency standards. These energy consumption estimates were adjusted to reflect the 2022 Title 24 standards that cumulatively produce a 0.49 percent reduction in electricity use and 0.45 percent reduction in natural gas use when compared to the 2019 standards.

19 South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015. SCAQMD based these thresholds, in part on the federal Clean Air Act and, to enable defining "significant" for CEQA purposes, defined the setting as the South Coast Air Basin. (See SCAQMD, CEQA Air Quality Handbook, April 1993, pp. 6-1-6-2).

City and SCAQMD Thresholds

For this analysis the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations recommended by the City of Los Angeles and SCAQMD Thresholds, as appropriate, to assist in answering the Appendix G Threshold questions.

(a) Construction

The City recommends that determination of significance be made on a case-by-case basis, considering the following criteria to evaluate construction-related air emissions:

(i) Combustion Emissions from Construction Equipment

- Type, number of pieces and usage for each type of construction equipment;
- Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and
- Emission factors for each type of equipment.

(ii) Fugitive Dust—Grading, Excavation and Hauling

- Amount of soil to be disturbed on-site or moved off-site;
- Emission factors for disturbed soil;
- Duration of grading, excavation and hauling activities;
- Type and number of pieces of equipment to be used; and
- Projected haul route.

(iii) Fugitive Dust—Heavy-Duty Equipment Travel on Unpaved Road

- Length and type of road;
- Type, number of pieces, weight and usage of equipment; and
- Type of soil.

(iv) Other Mobile Source Emissions

- Number and average length of construction worker trips to Project Site, per day; and
- Duration of construction activities.

In addition, the following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under the Appendix G Thresholds. Under these thresholds, a significant threshold would occur when:[20]

- Regional emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed threshold levels: (1) 100 pounds per day for NO_X; (2) 75 pounds a day for VOC; (3) 150 pounds per day for PM_{10} or SO_X; (4) 55 pounds per day for $PM_{2.5}$; and (5) 550 pounds per day for CO.

[20] South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015.

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 ppm [23,000 $\mu g/m^3$] over a 1-hour period or 9.0 ppm [10,350 $\mu g/m^3$] averaged over an 8-hour period) and NO_2 (0.18 ppm [339 $\mu g/m^3$] over a 1-hour period, 0.1 ppm [188 $\mu g/m^3$] over a three-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm [57 $\mu g/m^3$] averaged over an annual period).

- Maximum on-site localized PM_{10} or $PM_{2.5}$ emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hour threshold of 10.4 $\mu g/m^3$ or 1.0 $\mu g/m^3$ PM_{10} averaged over an annual period.

(b) Operation

The City bases the determination of significance of operational air quality impacts on criteria set forth in the SCAQMD's *CEQA Air Quality Handbook.*[21] As discussed above, the City uses Appendix G as the thresholds of significance for this analysis. Accordingly, the following serve as quantitative air quality standards to be used to evaluate project impacts under the Appendix G thresholds. Under these thresholds, a significant threshold would occur when:

- Operational emissions exceed 10 tons per year of volatile organic gases or any of the following SCAQMD prescribed threshold levels: (1) 55 pounds a day for VOC;[22] (2) 55 pounds per day for NO_X; (3) 550 pounds per day for CO; (4) 150 pounds per day for SO_X; (5) 150 pounds per day for PM_{10}; and (6) 55 pounds per day for $PM_{2.5}$.[23]

- Maximum on-site daily localized emissions exceed the LST, resulting in predicted ambient concentrations in the vicinity of the Project Site greater than the most stringent ambient air quality standards for CO (20 parts per million (ppm) over a 1-hour period or 9.0 ppm averaged over an 8-hour period) and NO_2 (0.18 ppm over a 1-hour period, 0.1 ppm over a 3-year average of the 98th percentile of the daily maximum 1-hour average, or 0.03 ppm averaged over an annual period).[24]

- Maximum on-site localized operational PM_{10} and $PM_{2.5}$ emissions exceed the incremental 24-hour threshold of 2.5 $\mu g/m^3$ or 1.0 $\mu g/m^3$ PM_{10} averaged over an annual period.[25]

- The Project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or

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21 South Coast Air Quality Management District, Air Quality Significance Thresholds, revised March 2015.

22 For purposes of this analysis, emissions of VOC and reactive organic compounds (ROG) are used interchangeably since ROG represents approximately 99.9 percent of VOC emissions.

23 South Coast Air Quality Management District, Quality Significance Thresholds, www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf, last updated March 2015.

24 South Coast Air Quality Management District, Final Localized Significance Threshold Methodology, revised July 2008.

25 South Coast Air Quality Management District, Final—Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds, October 2006.

- The Project creates an odor nuisance pursuant to SCAQMD Rule 402.

(c) Toxic Air Contaminants

The City recommends that the determination of significance shall be made on a case-by-case basis, considering the following criteria to evaluate TACs:

- Would the project use, store, or process carcinogenic or non-carcinogenic toxic air contaminants which could result in airborne emissions?

In assessing impacts related to TACs in this section, the City uses Appendix G as the thresholds of significance. The criteria identified above will be used where applicable and relevant to assist in analyzing the Appendix G thresholds. In addition, the following criteria set forth in the SCAQMD's *CEQA Air Quality Handbook* serve as quantitative air quality standards to be used to evaluate project impacts under Appendix G thresholds. Under these thresholds, a significant threshold would occur when:[26]

- The Project results in the exposure of sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[27] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project would result in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

(d) Consistency with Applicable Air Quality Plans

CEQA Guidelines Section 15125 requires an analysis of project consistency with applicable governmental plans and policies. This analysis is conducted to assess potential project impacts against Threshold (a) from the Appendix G thresholds. In accordance with the SCAQMD's *CEQA Air Quality Handbook*, the following criteria are used to evaluate a project's consistency with the AQMP:[28]

- Will the Project result in any of the following:
  - An increase in the frequency or severity of existing air quality violations;
  - Cause or contribute to new air quality violations; or
  - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?

- Will the Project exceed the assumptions utilized in preparing the AQMP?
  - Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;

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26 South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, Chapter 6 (Determining the Air Quality Significance of a Project) and Chapter 10 (Assessing Toxic Air Pollutants).

27 Hazard index is the ratio of a toxic air contaminant's concentration divided by its Reference Concentration, or safe exposure level. If the hazard index exceeds one, people are exposed to levels of TACs that may pose noncancer health risks.

28 South Coast Air Quality Management District, CEQA Air Quality Handbook, April 1993, p. 12-3.

- Does the Project include air quality mitigation measures; or
- To what extent is Project development consistent with the AQMP land use policies?

The Project's impacts with respect to these criteria are discussed to assess the consistency with the SCAQMD's AQMP and SCAG regional plans and policies. In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

Project Design Features. The Project would comply with the 2022 Los Angeles Green Building Code (LAGBC),[29] which will build upon and set higher standards than those in the 2022 California Green Building Standards Code (CalGreen, effective January 1, 2023).[30] Construction in later years could be subject to the future 2025 LAGBC and CalGreen standards. Further energy efficiency and sustainability features would include native plants and drip/subsurface irrigation systems, individual metering or sub metering for water use, leak detection systems, and electric vehicle charging capacity. In accordance with City Ordinance 187714, the Project would be all-electric.

The Project's lower off-street parking supply will reduce car ownership rates and resulting vehicle use that will reduce energy and air quality emissions. The Project's infill location is a design feature that would promote the concentration of development in an urban location with access to transportation infrastructure and public transit facilities. This would reduce vehicle miles traveled (VMT) for residents and visitors who want options to driving cars.

Analysis of Project Impacts

a. Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project's air quality emissions would not exceed any State or federal standards. Therefore, the Project would not increase the frequency or severity of an existing violation or cause or contribute to new violations for these pollutants. As the Project would not exceed any State and federal standards, the Project would also not delay timely attainment of air quality standards or interim emission reductions specified in the AQMP.

With respect to the determination of consistency with AQMP growth assumptions, the projections in the AQMP for achieving air quality goals are based on assumptions in SCAG's 2020-2045 RTP/SCS regarding population, housing, and growth trends. Determining whether a project exceeds the assumptions reflected in the AQMP involves the evaluation of three criteria: (1) consistency with applicable population, housing, and employment growth projections; (2) project mitigation measures; and (3) appropriate incorporation of AQMP land use planning strategies. The following discussion provides an analysis with respect to each of these three criteria.

- Is the project consistent with the population, housing, and employment growth projections upon which AQMP forecasted emission levels are based?

A project is consistent with the AQMP, in part, if it is consistent with the population, housing, and employment assumptions that were used in the development of the AQMP. In the case of the 2022 AQMP, two sources of data form the basis for the projections of air pollutant emissions: the City of Los

29 City of Los Angeles Department of Building and Safety: http://ladbs.org/forms-publications/forms/green-building.

30 California Building Codes: http://www.bsc.ca.gov/Codes.aspx.

Angeles General Plan and SCAG's RTP. The General Plan serves as a comprehensive, long-term plan for future development of the City.

The 2020-2045 RTP/SCS provides socioeconomic forecast projections of regional population growth. The population, housing, and employment forecasts, which are adopted by SCAG's Regional Council, are based on local plans and policies applicable to the specific area; these are used by SCAG in all phases of implementation and review. The 2020-2045 RTP/SCS accommodates a total of 4,771,300 persons; 1,793,000 households; and 2,135,900 jobs in the City of Los Angeles by 2045.

The City provided local growth forecasts that were incorporated into the regional projections. The Project Site is classified as "Neighborhood Office Commercial" in the General Plan Framework and zoned C2-1 (Commercial Zone), which permits grocery store uses, as well as residential uses permitted in the R4 Multiple Dwelling Zone. As such, the RTP/SCS' assumptions about growth in the City accommodate population, housing, and jobs on the Project Site.

The Project would add a residential population of approximately 579 people to the Project Site based on the 246 dwelling units proposed.[31] The Project's residential population would represent approximately 0.07 percent of the forecast population growth between 2016 and 2045 and be consistent with the local growth assumptions that formed the basis of the region's AQMP.

Development of the Project also would result in approximately 115 employment positions on-site, based on the 28,835 square feet of supermarket space proposed.[32] Thus, the Project's estimated employment impact would be an incremental increase in local jobs and would be consistent with the job growth assumptions that formed the basis of the region's AQMP.

As a result, the Project would be consistent with the growth assumptions in the City's General Plan. Because the AQMP accommodates growth forecasts from local General Plans, the emissions associated with this Project are accounted for and mitigated in the region's air quality attainment plans. The air quality impacts of development on the Project Site are accommodated in the region's emissions inventory for the 2020-2045 RTP/SCS and 2022 AQMP

Does the project implement feasible air quality mitigation measures?

As discussed below under Thresholds (b), (c), and (d), the Project would not result in any significant air quality impacts and therefore would not require mitigation. In addition, the Project would comply with all applicable regulatory standards as required by SCAQMD. Furthermore, with compliance with the regulatory requirements identified above, no significant air quality impacts would occur. As such, the proposed Project meets this AQMP consistency criterion.

- To what extent is project development consistent with the land use policies set forth in the AQMP?

With regard to land use developments, the AQMP's air quality policies focus on the reduction of vehicle trips and VMT. The Project would implement a number of land use policies of the City of Los Angeles, SCAQMD, and SCAG, as it would be designed and constructed to support and promote environmental sustainability. The Project represents an infill development within an urbanized area that would

31 City of Los Angeles, VMT Calculator (version 1.4), Project Screening Summary.

32 Ibid.

concentrate more housing, jobs, and population within a high quality transit area (HQTA). "Green" principles are incorporated throughout the Project to comply with the City of Los Angeles Green Building Code and CALGreen through energy conservation, water conservation, and waste reduction features. In accordance with City Ordinance 187714, the Project would be all-electric with the exception of any gas-powered emergency backup systems.

The air quality plan applicable to the Project area is the 2022 AQMP, the current management plan for progression toward compliance with State and federal clean air requirements. The Project would be required to comply with all regulatory measures set forth by the SCAQMD. Implementation of the Project would not interfere with air pollution control measures listed in the 2022 AQMP. As noted earlier, the Project is consistent with the land use policies of the City that were reflected in the regional growth projections for the AQMP. As demonstrated in the following analysis, the Project would not result in significant emissions that would jeopardize regional or localized air quality standards.

City of Los Angeles Policies

The Project would offer convenient access to public transit and opportunities for walking and biking (including the provision of bicycle parking), thereby facilitating a reduction in VMT. In addition, the Project would be consistent with the existing land use pattern in the vicinity that concentrates urban density along major arterials and near transit options and would help reduce air quality emissions in several ways:

- The Project Site is within a HQTA, which reflects areas with rail transit service or bus service where lines have peak headways of less than 15 minutes.[33]
- There is public transit service in the area, including Los Angeles County Metropolitan Transportation Authority (Metro) Line 92 which provides east-west service along Glenoaks Boulevard that connects Downtown Los Angeles with the Sylmar Metrolink station. This line provides service every 20 minutes during peak periods. The nearest bus stop is 600 feet southeast of the Project Site
- There are Class II bicycle lanes on Glenoaks Boulevard that directly serve the Project Site.
- The project will provide twelve short- and 270 long-term bicycle parking spaces on-site.

The City's General Plan Air Quality Element identifies 30 policies with specific strategies for advancing the City's clean air goals. As illustrated in Table 4, the Project is consistent with the applicable policies in the Air Quality Element, as the Project would implement sustainability features that would reduce vehicular trips, reduce VMT, and encourage the use of alternative modes of transportation. Therefore, the Project would result in a less than significant impact related to consistency with the Air Quality Element.

[33] Southern California Association of Governments Data Portal https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_active-transportation.pdf?1606001530,

Table 4
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
Policy 1.3.1. Minimize particulate emissions from construction sites.	**Consistent.** The Project would minimize particulate emissions during construction through best practices and/or SCAQMD rules (e.g., Rule 403, Fugitive Dust).
Policy 1.3.2. Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Not Applicable.** The Project would not involve use of unpaved roads or parking lots.
Policy 2.1.1. Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**Consistent.** The proposed development would include retail employees that could access transportation options to driving to work. In turn, the Project Site is served by public transit, including with Metro Line 92 service along Glenoaks Boulevard that connects the Sylmar Metrolink Station to Downtown Los Angeles. This would serve both employees and residents. Both can also benefit from the twelve short- and 270 long-term bicycle parking spaces on-site for residents and workers, as well as Class II bicycle lanes on Glenoaks Boulevard.
Policy 2.1.2. Facilitate and encourage the use of telecommunications (i.e., telecommuting) in both the public and private sectors, in order to reduce work trips.	**Consistent.** Residents could use high-speed telecommunications services as an alternative to driving to work. A June 2020 study by the National Bureau of Economic Research found that 37 percent of jobs can be performed entirely from home (https://www.nber.org/papers/w26948). As such, the Proposed Project could help reduce commuting to work through telecommuting.
Policy 2.2.1. Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** Residents, workers, and visitors can use public transit, including Metro Line 92 service along Glenoaks Boulevard that connects the Sylmar Metrolink Station to Downtown Los Angeles. This would serve both employees and residents. Both can also benefit from the twelve short- and 270 long-term bicycle parking spaces on-site for residents and workers, as well as Class II bicycle lanes on Glenoaks Boulevard.
Policy 2.2.2. Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Not Consistent.** The Project is a mixed-use development that does not include any parking management strategies,
Policy 2.2.3. Minimize the use of single-occupant vehicles associated with special events or in areas and times of high levels of pedestrian activities.	**Not Applicable.** The Project would not include facilities for special events.
Policy 3.2.1. Manage traffic congestion during peak hours.	**Consistent.** The Project is a low traffic generator because of the nature of residential uses, which generate peak hour vehicle trips that are lower than commercial, retail, and restaurant uses. Further, the Project would also minimize traffic congestion based on its location near transit opportunities, which would

Table 4
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
	encourage the use of alternative modes of transportation. Residents, workers, and visitors can use public transit, including Metro Line 92 service along Glenoaks Boulevard that connects the Sylmar Metrolink Station to Downtown Los Angeles. This would serve both employees and residents. Both can also benefit from the twelve short- and 270 long-term bicycle parking spaces on-site for residents and workers, as well as Class II bicycle lanes on Glenoaks Boulevard.
Policy 4.1.1. Coordinate with all appropriate regional agencies on the implementation of strategies for the integration of land use, transportation, and air quality policies.	**Not Applicable.** This policy is directed at the City and not individual development projects. Nonetheless, the Project is being considered for approval by the City of Los Angeles, which coordinates with SCAG, Metro, and other regional agencies on the coordination of land use, air quality, and transportation policies.
Policy 4.1.2. Ensure that project level review and approval of land use development remains at the local level.	**Consistent.** The Project would be entitled and environmentally cleared at the local level. The Project would not inhibit the implementation of this policy.
Policy 4.2.1. Revise the City's General Plan/Community Plans to achieve a more compact, efficient urban form and to promote more transit-oriented development and mixed-use development.	**Not Applicable.** This policy calls for City updates to its General Plan. The Project would not inhibit the implementation of this policy.
Policy 4.2.2. Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would be infill development that would provide the City's residents with proximate access to jobs and services at this Project Site.
Policy 4.2.3. Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would promote public transit, active transportation, and alternative fuel vehicles for residents, workers, and visitors, who can use public transit, including Metro Line 92 service along Glenoaks Boulevard that connects the Sylmar Metrolink Station to Downtown Los Angeles. This would serve both employees and residents. Both can also benefit from the twelve short- and 270 long-term bicycle parking spaces on-site for residents and workers, as well as Class II bicycle lanes on Glenoaks Boulevard. The Project would also include 16 electric vehicle charging stations and 69 more spaces with conduits and supplies for future charging stations.
Policy 4.2.4. Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	**Consistent.** The Project's air quality impacts are analyzed in this document, and as discussed herein, all impacts with respect to air quality would be less than significant.
Policy 4.2.5. Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The proposed project would support use of alternative transportation modes. The Project Site is well-served by public transit, including Metro Line 92 service along Glenoaks Boulevard that connects the

Table 4
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
	Sylmar Metrolink Station to Downtown Los Angeles. This would serve both employees and residents. Both can also benefit from the twelve short- and 270 long-term bicycle parking spaces on-site for residents and workers, as well as Class II bicycle lanes on Glenoaks Boulevard.
Policy 4.3.1. Revise the City's General Plan/Community Plans to ensure that new or relocated sensitive receptors are located to minimize significant health risks posed by air pollution sources.	**Not Applicable.** This policy calls for City updates to its General Plan. The Project would not inhibit the implementation of this policy.
Policy 4.3.2. Revise the City's General Plan/Community Plans to ensure that new or relocated major air pollution sources are located to minimize significant health risks to sensitive receptors.	**Not Applicable.** This policy calls for City updates to its General Plan. The Project would not inhibit the implementation of this policy.
Policy 5.1.1. Make improvements in Harbor and airport operations and facilities in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's water port and airport facilities. The Project would not inhibit the implementation of this policy.
Policy 5.1.2. Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Not Applicable.** This policy calls for cleaner operations of the City's buildings and operations. The Project would not inhibit the implementation of this policy.
Policy 5.1.3. Have the Department of Water and Power make improvements at its in-basin power plants in order to reduce air emissions.	**Not Applicable.** This policy calls for cleaner operations of the City's Water and Power energy plants. The Project would not inhibit the implementation of this policy.
Policy 5.1.4. Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The Project would be consistent with this policy by complying with Title 24, CALGreen, and other requirements to reduce solid waste and energy consumption. This includes the City's March 2010 ordinance (Council File 09-3029) that requires all mixed construction and demolition waste be taken to City-certified waste processors.
Policy 5.2.1. Reduce emissions from its own vehicles by continuing scheduled maintenance, inspection and vehicle replacement programs; by adhering to the State of California's emissions testing and monitoring programs; by using alternative fuel vehicles wherever feasible, in accordance with regulatory agencies and City Council policies.	**Not Applicable.** This policy calls for the City to gradually reduce the fleet emissions inventory from its vehicles through use of alternative fuels, improved maintenance practices, and related operational improvements. The Project's support of electric vehicles will continue the State's conversion to zero emission fleets that do not required engine inspections.
Policy 5.3.1. Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** The Project would be designed to meet the applicable requirements of the States Green Building Standards Code and the City of Los Angeles' Green Building Code, both of which promote a shift from natural gas use toward electrification of buildings. The Project would also include 16 electric vehicle charging

Table 4
Project Consistency with City of Los Angeles General Plan Air Quality Element

Strategy	Project Consistency
	stations and 69 more spaces with conduits and supplies for future charging stations. The Project would be powered by electricity, pursuant to City Ordinance 187714.
Policy 6.1.1. Raise awareness through public-information and education programs of the actions that individuals can take to reduce air emissions.	**Not Applicable.** This policy calls for the City to promote clean air awareness through its public awareness programs. The Project would not inhibit the implementation of this policy.
Source: DKA Planning, 2024.	

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact.

Construction

A cumulatively considerable net increase would occur if the project's construction impacts substantially contribute to air quality violations when considering other projects that may undertake construction activities at the same time. Individual projects that generate emissions that do not exceed SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to assess the impacts associated with these emissions.[34]

Construction-related emissions were estimated using the SCAQMD's CalEEMod 2022.1.1.21 model and a projected construction schedule of at least 24 months. Table 5 summarizes the potential construction schedule that was modeled for air quality impacts.

Table 5
Construction Schedule Assumptions

Phase	Duration	Notes
Demolition	Months 1-2	Removal of 9,240 square feet of building floor area and 101,692 square feet of asphalt/concrete parking lot hauled 20 miles to landfill in 14-cubic yard capacity trucks.
Site Preparation	Month 3	Grubbing and removal of trees, plants, landscaping, weeds

34 South Coast Air Quality Management District, 2003 White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf: "As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR…Projects that exceed the project-specific significance threshold are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are not considered to be cumulatively significant.

Table 5
Construction Schedule Assumptions

Grading	Months 4-6	Approximately 58,006 cubic yards of soil hauled 20 miles to landfill in 14-cubic yard capacity trucks. Includes drilling of piles and shoring of excavated site.
Trenching	Months 7-9	Trenching for utilities, including gas, water, electricity, and telecommunications.
Building Construction	Months 7-24	Footings and foundation work, framing, welding; installing mechanical, electrical, and plumbing. Floor assembly, cabinetry and carpentry, elevator installations, low voltage systems, trash management.
Architectural Coatings	Months 21-24	Application of interior and exterior coatings and sealants.
Source: DKA Planning, 2024.		

The Project would be required to comply with the following regulations, as applicable:

- SCAQMD Rule 403, would reduce the amount of particulate matter entrained in ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

- SCAQMD Rule 1113, which limits the VOC content of architectural coatings.

- SCAQMD Rule 402, which states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials 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.

- In accordance with Section 2485 in Title 13 of the California Code of Regulations, the idling of all diesel-fueled commercial vehicles (with gross vehicle weight over 10,000 pounds) during construction would be limited to five minutes at any location.

- In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines would meet specific fuel and fuel additive requirements and emissions standards.

Regional Emissions

Construction activity creates air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project Site. NO_X emissions would primarily result from the use of construction equipment and truck trips.

Fugitive dust emissions would peak during grading activities, where approximately 58,007 cubic yards of soil would be exported from the Project Site to accommodate a two-level subterranean structure. All construction projects in the Basin must comply with SCAQMD Rule 403 for fugitive dust, which include measures to prevent visible dust plumes. Other measures include, but are not limited to, applying water and/or soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system or other control measures to remove bulk material from tires and vehicle undercarriages before vehicles exit the Project Site, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce regional $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

During the building finishing phase, the application of architectural coatings (e.g., paints) would release VOCs (regulated by SCAQMD Rule 1113). The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

As shown in Table 6, construction of the Project would produce VOC, NO_X, CO, SO_X, PM_{10} and $PM_{2.5}$ emissions that do not exceed the SCAQMD's regional thresholds. As a result, construction of the Project would not contribute substantially to an existing violation of air quality standards for regional pollutants (e.g., ozone). This impact is considered less than significant.

Localized Emissions

In addition to maximum daily regional emissions, maximum localized (on-site) emissions were quantified for each construction activity. The localized construction air quality analysis was conducted using the methodology promulgated by the SCAQMD. Look-up tables provided by the SCAQMD were used to determine localized construction emissions thresholds for the Project.[35] LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard and are based on the most recent background ambient air quality monitoring data (2020-2022) for the Project area.

Table 6
Daily Construction Emissions

Construction Phase Year	Daily Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2025	1.7	23.8	18.8	0.1	5.7	2.6
2026	2.1	13.0	28.1	<0.1	4.0	1.2
2027	17.3	13.5	30.9	<0.1	4.6	1.3
Maximum Regional Total	17.3	23.8	30.9	0.1	5.7	2.6
Regional Threshold	75	100	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Maximum Localized Total	16.2	14.1	14.5	<0.1	3.4	1.9
Localized Threshold	N/A	114	786	N/A	7	4
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

[35] South Coast Air Quality Management District, LST Methodology Appendix C-Mass Rate LST Look-Up Table, https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2, October 2009.

Table 6
Daily Construction Emissions

The construction dates are used for the modeling of air quality emissions in the CalEEMod software. If construction activities commence later than what is assumed in the environmental analysis, the actual emissions would be lower than analyzed because of the increasing penetration of newer equipment with lower certified emission levels. Assumes implementation of SCAQMD Rule 403 (Fugitive Dust Emissions)
Source: DKA Planning, 2024 based on CalEEMod 2022.1.1.21 model runs. LST analyses based on two-acre site with 25-meter distances to receptors in East San Fernando Valley source receptor area. Estimates reflect the peak summer or winter season, whichever is higher. Totals may not add up due to rounding. Modeling sheets included in the Technical Appendix.

Maximum on-site daily construction emissions for NO_X, CO, PM_{10}, and $PM_{2.5}$ were calculated using CalEEMod and compared to the applicable SCAQMD LSTs for the East San Fernando Valley SRA based on construction site acreage that is between two and five acres in area. Potential impacts were evaluated at the closest off-site sensitive receptor, which are the residences to the southwest of the Project Site. The closest receptor distance on the SCAQMD mass rate LST look-up tables is 25 meters.

As shown in Table 6, above**,** the Project would produce emissions that do not exceed the SCAQMD's recommended localized standards of significance for NO_2 and CO during the construction phase. Similarly, construction activities would not produce PM_{10} and $PM_{2.5}$ emissions that exceed localized thresholds recommended by the SCAQMD. These estimates assume the use of Best Available Control Measures (BACMs) that address fugitive dust emissions of PM_{10} and $PM_{2.5}$ through SCAQMD Rule 403. This would include watering portions of the site that are disturbed during grading activities and minimizing tracking of dirt onto local streets. Therefore, construction impacts on localized air quality are considered less than significant.

Operation

Operational emissions of criteria pollutants would come from area, energy, and mobile sources. Area sources include consumer products such as household cleaners, architectural coatings for routine maintenance, and landscaping equipment.[36] Energy sources include electricity for space cooling and heating and water heating. The CalEEMod model generates estimates of emissions from energy use based on the land use type and size. The Project would also produce long-term air quality impacts to the region primarily from motor vehicles that access the Project Site. The Project could add approximately 3,347 vehicle trips and 30,618 VMT to local roadways and the region's air quality airshed on a weekday at the start of operations in 2027.[37]

As shown in Table 7, the Project's emissions would not exceed the SCAQMD's regional or localized significance thresholds. Therefore, the operational impacts of the Project on regional and localized air quality are considered less than significant.

[36] In 2021, CARB adopted regulations requiring that all small (25 horsepower and below) spark-ignited off-road engines (e.g., lawn and gardening equipment) be zero emission starting in model year 2024. Standards for portable generators and large pressure washers are given until model year 2028 to be electric-powered.

[37] City of Los Angeles VMT Calculator, version 1.4 screening analysis.

Table 7
Daily Operations Emissions

Emissions Source	Daily Emissions (Pounds Per Day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area Sources	6.9	0.2	20.7	<0.1	<0.1	<0.1
Energy Sources	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Mobile Sources	10.7	8.0	94.1	0.2	21.9	5.6
Regional Total	17.6	8.3	114.9	0.2	21.9	5.7
Regional Significance Threshold	55	55	550	150	150	55
Exceed Threshold?	**No**	**No**	**No**	**No**	**No**	**No**
Net Localized Total	6.9	0.3	20.8	<0.1	<0.1	<0.1
Localized Significance Threshold	N/A	114	786	N/A	2	1
Exceed Threshold?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

LST analyses based on two-acre site with 25-meter distances to receptors in East San Fernando Valley SRA
Source: DKA Planning, 2024 based on CalEEMod 2022.1.1.21 model runs (included in the Technical Appendix). Totals reflect the summer season maximum and may not add up due to rounding.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. There are several sensitive receptors within 0.25 miles (1,320 feet) of the Project Site that could be exposed to air pollution from construction and operation of the Project, including, but are not limited to, the following representative sampling:

- Residences, Eustace Street; as close as five feet southwest of the Project Site.
- Residences, Desmond Street; as close as 40 feet northwest of the Project Site.
- Residences, Glenoaks Boulevard (northeast side); 140 feet northeast of the Project Site.
- Middle School, 13223 Eustace Street; 180 feet southwest of the Project Site.
- Residences – Paxton Street; as close as 390 feet southeast of the Project Site.

Construction

Construction of the Project could expose sensitive receptors to substantial pollutant concentrations if maximum daily emissions of regulated pollutants generated by sources located on and/or near the Project Site exceeded the applicable LST values presented in Table 3, or if construction activities generated significant emissions of TACs that could result in carcinogenic risks or non-carcinogenic hazards exceeding the SCAQMD Air Quality Significance Thresholds of ten excess cancers per million or non-carcinogenic Hazard Index greater than 1.0, respectively. As discussed above, the LST values were derived by the SCAQMD for the criteria pollutants NO_X, CO, PM_{10}, and $PM_{2.5}$ to prevent the occurrence of concentrations exceeding the air quality standards at sensitive receptor locations based on proximity and construction site size.

As shown in Table 6, during construction of the Project, maximum daily localized unmitigated emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ from sources on the Project Site would remain below each of the respective LST values. Unmitigated maximum daily localized emissions would not exceed any of the localized standards for receptors that are within 25 meters of the Project's construction activities. Therefore, based on SCAQMD guidance, localized emissions of criteria pollutants would not have the potential to expose sensitive receptors to substantial concentrations that would present a public health concern.

The primary TAC that would be generated by construction activities is diesel PM, which would be released from the exhaust of mobile construction equipment. The construction emissions modeling conservatively assumed that all equipment present on the Project Site would be operating simultaneously throughout most of the day, though this would rarely be the case. Daily emissions of diesel PM would be negligible throughout the course of Project construction. Therefore, the magnitude of daily diesel PM emissions, would not be sufficient to result in substantial pollutant concentrations at off-site locations nearby.

Furthermore, according to SCAQMD methodology, health risks from carcinogenic air toxics are usually described in terms of individual cancer risk. “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer based on the use of standard risk-assessment methodology. The entire duration of construction activities associated with implementation of the Project is anticipated to be at least 24 months, and the magnitude of diesel PM emissions will vary over this time period. No residual emissions and corresponding individual cancer risk are anticipated after construction. Because there is such a short-term exposure period, construction TAC emissions would result in a less than significant impact. Therefore, construction of the Project would not expose sensitive receptors to substantial diesel PM concentrations, and this impact would be less than significant.

Operation

The Project Site would be redeveloped with multi-family residences and a supermarket, land uses that are not typically associated with TAC emissions. Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The Project would not include these types of potential industrial manufacturing process sources. It is expected that quantities of hazardous TACs generated on-site (e.g., cleaning solvents, paints, landscape pesticides) for the types of proposed land uses would be below thresholds warranting further study under California Accidental Release Program.

When considering potential air quality impacts under CEQA, consideration is given to the location of sensitive receptors within close proximity of land uses that emit TACs. CARB has published and adopted the Air Quality and Land Use Handbook: A Community Health Perspective, which provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities).[38] The SCAQMD adopted similar recommendations in its Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning.[39] Together, CARB and SCAQMD guidelines recommend siting distances for both the development of sensitive land uses in proximity to TAC sources and the addition of new TAC sources in proximity to existing sensitive land uses.

The primary sources of potential air toxics associated with Project operations include DPM from delivery trucks (e.g., truck traffic on local streets and idling on adjacent streets) and to a lesser extent, facility operations (e.g., natural gas fired boilers). However, these activities, and the land uses associated with

38 California Air Resources Board, Air Quality and Land Use Handbook, a Community Health Perspective, April 2005.

39 South Coast Air Quality Management District, Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning, May 6, 2005.

the Project, are not considered land uses that generate substantial TAC emissions. It should be noted that the SCAQMD recommends that health risk assessments (HRAs) be conducted for substantial individual sources of DPM (e.g., truck stops and warehouse distribution facilities that generate more than 100 trucks per day or more than 40 trucks with operating transport refrigeration units) and has provided guidance for analyzing mobile source diesel emissions.[40] Based on this guidance, the Project would not include these types of land uses and is not considered to be a substantial source of DPM warranting a refined HRA since daily truck trips to the Project Site would not exceed 100 trucks per day or more than 40 trucks with operating transport refrigeration units. In addition, CARB-mandated airborne toxic control measures (ATCM) limits diesel-fueled commercial vehicles (delivery trucks) to idle for no more than five minutes at any given time, which would further limit diesel particulate emissions.

As the Project would not contain substantial TAC sources and is consistent with the CARB and SCAQMD guidelines, the Project would not result in the exposure of off-site sensitive receptors to carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk of ten in one million or an acute or chronic hazard index of 1.0, and potential TAC impacts would be less than significant.

The Project would generate long-term emissions on-site from area and energy sources that would generate negligible pollutant concentrations of CO, NO_2, $PM_{2.5}$, or PM_{10} at nearby sensitive receptors. While long-term operations of the Project would add traffic to local roads that produces off-site emissions, these would not result in exceedances of CO air quality standards at roadways in the area due to three key factors. First, CO hotspots are extremely rare and only occur in the presence of unusual atmospheric conditions and extremely cold conditions, neither of which applies to this Project area. Second, auto-related emissions of CO continue to decline because of advances in fuel combustion technology in the vehicle fleet. Finally, the Project would not contribute to the levels of congestion that would be needed to produce emissions concentrations needed to trigger a CO hotspot, as it would add 2,421 vehicle trips to the local roadway network on weekdays when the development could be fully leased and operational in 2025.[41] The majority of vehicle-related impacts at the Project Site would come from 250 and 257 vehicles entering and exiting the development during the peak A.M. and P.M. hours, respectively.[42] This would represent a small addition to traffic volumes on local roadways. For example, it would represent 10.3 percent of the 2,421 vehicles using Glenoaks Boulevard at Vaughn Street in the A.M. peak hour, an intersection that would be used for the haul route as trucks travel to and from the Sunshine Canyon Landfill.[43] Assuming peak hour volumes represent ten percent of daily volumes, this intersection would carry 24,210 daily vehicle trips, well below the traffic volumes that would be needed to generate CO exceedances of the ambient air quality standard.[44]

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[40] South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, 2002.

[41] DKA Planning, 2024 based on ITE Trip Generation rates, 11th Edition.

[42] DKA Planning, 2024. Hourly trip generation based on Institute of Transportation Engineer's hourly trip generation factors for Multifamily Housing (Mid-Rise) (land use code 221).

[43] DKA Planning, 2024, based on City of Los Angeles database of traffic volumes on Glenoaks Boulevard at Vaughn Street, https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf, 2017 traffic counts adjusted by one percent growth factor to represent existing conditions.

[44] South Coast Air Quality Management District; 2003 AQMP. As discussed in the 2003 AQMP, the 1992 CO Plan included a CO hotspot analysis at four intersections in the peak A.M. and P.M. time periods, including Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection was Wilshire and Veteran, used by 100,000 vehicles per day. The 2003 AQMP estimated a 4.6 ppm one-hour concentration at this intersection, which meant that an exceedance (20 ppm) would not occur until daily traffic exceeded more than 400,000 vehicles per day.

Finally, the Project would not result in any substantial emissions of TACs during the construction or operations phase. During the construction phase, the primary air quality impacts would be associated with the combustion of diesel fuels, which produce exhaust-related particulate matter that is considered a toxic air contaminant by CARB based on chronic exposure to these emissions.[45] However, construction activities would not produce chronic, long-term exposure to diesel particulate matter. During long-term project operations, the Project does not include typical sources of acutely and chronically hazardous TACs such as industrial manufacturing processes and automotive repair facilities. As a result, the Project would not create substantial concentrations of TACs.

In addition, the SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops and warehouse distribution facilities) and has provided guidance for analyzing mobile source diesel emissions.[46] The Project would not generate a substantial number of truck trips. Based on the limited activity of TAC sources, the Project would not warrant the need for a health risk assessment associated with on-site activities. Therefore, the Project's operational impacts on local sensitive receptors would be less than significant.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The Project would not result in activities that create objectionable odors. The Project is a housing and supermarket development that would not include any activities typically associated with unpleasant odors and local nuisances (e.g., rendering facilities, dry cleaners). SCAQMD regulations that govern nuisances (i.e., Rule 402, Nuisances) would regulate any intermittent odors associated with the Project. As a result, any odor impacts from the Project would be considered less than significant.

Cumulative Impacts

While the Proposed Project would generate short- and long-term emissions during the construction and operations phases, respectively, the presence of any other development projects could produce cumulative impacts. The impact of cumulative development on short-term construction and long-term operations air quality is discussed below.

AQMP Consistency

Cumulative development is not expected to result in a significant impact in terms of conflicting with, or obstructing implementation of the 2022 AQMP. As discussed previously, growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the 2020-2045 RTP/SCS, implementation of the AQMP will not be obstructed by such growth. In addition, as discussed previously, the population growth resulting from the Project would be consistent with the growth projections of the AQMP. Any related project would implement feasible air quality mitigation measures to reduce the criteria air pollutants, if required due to any significant emissions impacts. In addition, each related project would be evaluated for its consistency

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45 California Office of Environmental Health Hazard Assessment. Health Effects of Diesel Exhaust. www. http://oehha.ca.gov/public_info/facts/dieselfacts.html

46 South Coast Air Quality Management District, Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions, December 2002.

with the land use policies set forth in the AQMP. Therefore, the Project's contribution to the cumulative impact would not be cumulatively considerable and, therefore, would be less than significant.

Construction

SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.[47] Individual projects that generate emissions not in excess of SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

As summarized in Table 6, the Proposed Project would not exceed the SCAQMD's mass emissions thresholds and would not contribute to any potential cumulative impact. If any related project was projected to exceed LST thresholds (after mitigation), it could perform dispersion modeling to confirm whether health-based air quality standards would be violated. The SCAQMD's LST thresholds recognize the influence of a receptor's proximity, setting mass emissions thresholds for PM_{10} and $PM_{2.5}$ that generally double with every doubling of distance.

The Project would comply with regulatory requirements, including the SCAQMD Rule 403 requirements listed above. Based on SCAQMD guidance, individual construction projects that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in non-attainment. As shown above, construction-related daily emissions at the Project Site would not exceed any of the SCAQMD's regional or localized significance thresholds. Therefore, the Project's contribution to cumulative air quality impacts would not be cumulatively considerable and, therefore, would be less than significant.

Similar to the Project, the greatest potential for TAC emissions at each related project would generally involve diesel particulate emissions associated with heavy equipment operations during grading and excavation activities. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of individual cancer risk. "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of TACs over a 30-year period will contract cancer, based on the use of standard risk-assessment methodology. Construction activities are temporary and short-term events, thus construction activities at each related project would not result in a long-term substantial source of TAC emissions. Additionally, the SCAQMD CEQA guidance does not require a health risk assessment for short-term construction emissions. It is therefore not meaningful to evaluate long-term cancer impacts from construction activities, which occur over relatively short durations. As such, given the short-term nature of these activities, cumulative toxic emission impacts during construction would be less than significant.

Operation

As discussed above, the Project's operational air quality emissions and cumulative impacts would be less than significant. According to the SCAQMD, if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then

[47] White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.

the project would also result in a cumulatively considerable net increase of these criteria pollutants. As operational emissions would not exceed any of the SCAQMD's regional or localized significance thresholds, the emissions of non-attainment pollutants and precursors generated by Project operations would not be cumulatively considerable.

With respect to TAC emissions, neither the Project nor any likely related projects (which are largely residential, retail/commercial in nature), would represent a substantial source of TAC emissions, which are typically associated with large-scale industrial, manufacturing, and transportation hub facilities. The Project and related projects would be consistent with the recommended screening level siting distances for TAC sources, as set forth in CARB's Land Use Guidelines, and the Project and related projects would not result in a cumulative impact requiring further evaluation. However, any related projects could generate minimal TAC emissions related to the use of consumer products and landscape maintenance activities, among other things. Pursuant to AB 1807, which directs the CARB to identify substances as TACs and adopt airborne toxic control measures to control such substances, the SCAQMD has adopted numerous rules (primarily in Regulation XIV) that specifically address TAC emissions. These SCAQMD rules have resulted in and will continue to result in substantial Basin-wide TAC emissions reductions. As such, cumulative TAC emissions during long-term operations would be less than significant. Therefore, the Project would not result in any substantial sources of TACs that have been identified by the CARB's Land Use Guidelines, and thus, would not contribute to a cumulative impact.

TECHNICAL APPENDIX

DOUGLAS KIM + ASSOCIATES, LLC

FUTURE EMISSIONS

11623 Glenoaks Boulevard (Future) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	11623 Glenoaks Boulevard (Future)
Construction Start Date	7/1/2025
Operational Year	2027
Lead Agency	City of Los Angeles
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	1.40
Location	11623 Glenoaks Blvd, Pacoima, CA 91331, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3774
EDFZ	17
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Mid Rise	246	Dwelling Unit	2.00	168,473	5,000	—	579	—
Supermarket	28.8	1000sqft	0.24	28,835	0.00	—	—	—
Enclosed Parking with Elevator	316	Space	0.00	126,400	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-15	Require All-Electric Development

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	17.3	15.9	30.9	0.04	0.59	4.20	4.55	0.54	1.00	1.33
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	17.3	23.8	28.3	0.07	0.74	4.95	5.69	0.69	1.93	2.62
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	4.40	7.28	14.5	0.02	0.23	1.93	2.14	0.22	0.46	0.65
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.80	1.33	2.65	< 0.005	0.04	0.35	0.39	0.04	0.08	0.12

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.55	15.9	16.7	0.03	0.59	1.82	2.41	0.54	0.34	0.88
2026	2.11	12.8	28.1	0.03	0.38	3.57	3.96	0.34	0.86	1.20
2027	17.3	13.2	30.9	0.04	0.35	4.20	4.55	0.33	1.00	1.33
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.67	23.8	18.8	0.07	0.74	4.95	5.69	0.69	1.93	2.62
2026	2.10	13.0	25.8	0.03	0.38	3.57	3.96	0.34	0.86	1.20
2027	17.3	13.5	28.3	0.04	0.35	4.20	4.55	0.33	1.00	1.33
Average Daily	—	—	—	—	—	—	—	—	—	—
2025	0.56	6.91	6.09	0.02	0.23	1.16	1.39	0.22	0.39	0.61
2026	1.16	7.28	14.5	0.02	0.22	1.93	2.14	0.19	0.46	0.65
2027	4.40	4.68	9.86	0.01	0.12	1.42	1.54	0.11	0.34	0.45
Annual	—	—	—	—	—	—	—	—	—	—
2025	0.10	1.26	1.11	< 0.005	0.04	0.21	0.25	0.04	0.07	0.11
2026	0.21	1.33	2.65	< 0.005	0.04	0.35	0.39	0.04	0.08	0.12
2027	0.80	0.85	1.80	< 0.005	0.02	0.26	0.28	0.02	0.06	0.08

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.55	15.9	16.7	0.03	0.59	1.82	2.41	0.54	0.34	0.88
2026	2.11	12.8	28.1	0.03	0.38	3.57	3.96	0.34	0.86	1.20
2027	17.3	13.2	30.9	0.04	0.35	4.20	4.55	0.33	1.00	1.33

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2025	1.67	23.8	18.8	0.07	0.74	4.95	5.69	0.69	1.93	2.62
2026	2.10	13.0	25.8	0.03	0.38	3.57	3.96	0.34	0.86	1.20
2027	17.3	13.5	28.3	0.04	0.35	4.20	4.55	0.33	1.00	1.33
Average Daily	—	—	—	—	—	—	—	—	—	—
2025	0.56	6.91	6.09	0.02	0.23	1.16	1.39	0.22	0.39	0.61
2026	1.16	7.28	14.5	0.02	0.22	1.93	2.14	0.19	0.46	0.65
2027	4.40	4.68	9.86	0.01	0.12	1.42	1.54	0.11	0.34	0.45
Annual	—	—	—	—	—	—	—	—	—	—
2025	0.10	1.26	1.11	< 0.005	0.04	0.21	0.25	0.04	0.07	0.11
2026	0.21	1.33	2.65	< 0.005	0.04	0.35	0.39	0.04	0.08	0.12
2027	0.80	0.85	1.80	< 0.005	0.02	0.26	0.28	0.02	0.06	0.08

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	17.6	9.14	115	0.24	0.24	21.7	22.0	0.22	5.51	5.74
Mit.	17.6	8.28	115	0.23	0.17	21.7	21.9	0.15	5.51	5.67
% Reduced	< 0.5%	9%	< 0.5%	2%	29%	—	< 0.5%	31%	—	1%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	15.2	9.70	86.9	0.23	0.22	21.7	21.9	0.21	5.51	5.73
Mit.	15.1	8.84	86.5	0.22	0.15	21.7	21.9	0.14	5.51	5.66
% Reduced	< 0.5%	9%	< 0.5%	2%	31%	—	< 0.5%	33%	—	1%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—

Unmit.	16.7	9.91	103	0.23	0.23	21.7	21.9	0.22	5.51	5.73
Mit.	16.6	9.05	103	0.23	0.16	21.7	21.9	0.15	5.51	5.66
% Reduced	< 0.5%	9%	< 0.5%	2%	30%	—	< 0.5%	32%	—	1%
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	3.05	1.81	18.9	0.04	0.04	3.96	4.00	0.04	1.01	1.05
Mit.	3.04	1.65	18.8	0.04	0.03	3.96	3.99	0.03	1.01	1.03
% Reduced	< 0.5%	9%	< 0.5%	2%	30%	—	< 0.5%	32%	—	1%

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	10.7	7.98	94.1	0.23	0.14	21.7	21.9	0.13	5.51	5.65
Area	6.92	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Energy	0.06	0.96	0.45	0.01	0.08	—	0.08	0.08	—	0.08
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	17.6	9.14	115	0.24	0.24	21.7	22.0	0.22	5.51	5.74
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	10.5	8.73	86.4	0.22	0.14	21.7	21.9	0.13	5.51	5.65
Area	4.58	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Energy	0.06	0.96	0.45	0.01	0.08	—	0.08	0.08	—	0.08
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—

Total	15.2	9.70	86.9	0.23	0.22	21.7	21.9	0.21	5.51	5.73
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	10.5	8.82	88.8	0.22	0.14	21.7	21.8	0.13	5.51	5.64
Area	6.18	0.13	14.2	< 0.005	0.01	—	0.01	0.01	—	0.01
Energy	0.06	0.96	0.45	0.01	0.08	—	0.08	0.08	—	0.08
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	16.7	9.91	103	0.23	0.23	21.7	21.9	0.22	5.51	5.73
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	1.91	1.61	16.2	0.04	0.03	3.96	3.98	0.02	1.01	1.03
Area	1.13	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	3.05	1.81	18.9	0.04	0.04	3.96	4.00	0.04	1.01	1.05

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	10.7	7.98	94.1	0.23	0.14	21.7	21.9	0.13	5.51	5.65
Area	6.92	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Energy	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—

Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	17.6	8.28	115	0.23	0.17	21.7	21.9	0.15	5.51	5.67
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	10.5	8.73	86.4	0.22	0.14	21.7	21.9	0.13	5.51	5.65
Area	4.58	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Energy	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	15.1	8.84	86.5	0.22	0.15	21.7	21.9	0.14	5.51	5.66
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	10.5	8.82	88.8	0.22	0.14	21.7	21.8	0.13	5.51	5.64
Area	6.18	0.13	14.2	< 0.005	0.01	—	0.01	0.01	—	0.01
Energy	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	16.6	9.05	103	0.23	0.16	21.7	21.9	0.15	5.51	5.66
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	1.91	1.61	16.2	0.04	0.03	3.96	3.98	0.02	1.01	1.03
Area	1.13	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Energy	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Water	—	—	—	—	—	—	—	—	—	—
Waste	—	—	—	—	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—	—	—	—	—
Total	3.04	1.65	18.8	0.04	0.03	3.96	3.99	0.03	1.01	1.03

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52
Demolition	—	—	—	—	—	1.24	1.24	—	0.19	0.19
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.68	1.82	< 0.005	0.07	—	0.07	0.06	—	0.06
Demolition	—	—	—	—	—	0.15	0.15	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.31	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01
Demolition	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.87	0.00	0.00	0.16	0.16	0.00	0.04	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.02	1.91	0.74	0.01	0.02	0.42	0.44	0.02	0.11	0.13
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

3.2. Demolition (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	13.9	15.1	0.02	0.57	—	0.57	0.52	—	0.52
Demolition	—	—	—	—	—	1.24	1.24	—	0.19	0.19
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.68	1.82	< 0.005	0.07	—	0.07	0.06	—	0.06
Demolition	—	—	—	—	—	0.15	0.15	—	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.31	0.33	< 0.005	0.01	—	0.01	0.01	—	0.01
Demolition	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.87	0.00	0.00	0.16	0.16	0.00	0.04	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.91	0.74	0.01	0.02	0.42	0.44	0.02	0.11	0.13
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.24	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43
Dust From Material Movement	—	—	—	—	—	0.62	0.62	—	0.07	0.07
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.65	0.66	< 0.005	0.03	—	0.03	0.03	—	0.03
Dust From Material Movement	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.12	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.52	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.4. Site Preparation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43
Dust From Material Movement	—	—	—	—	—	0.62	0.62	—	0.07	0.07
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.65	0.66	< 0.005	0.03	—	0.03	0.03	—	0.03
Dust From Material Movement	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.12	0.12	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.52	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59
Dust From Material Movement	—	—	—	—	—	2.78	2.78	—	1.34	1.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.54	2.62	< 0.005	0.12	—	0.12	0.11	—	0.11
Dust From Material Movement	—	—	—	—	—	0.50	0.50	—	0.24	0.24
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02
Dust From Material Movement	—	—	—	—	—	0.09	0.09	—	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	9.71	3.67	0.05	0.10	2.04	2.13	0.10	0.56	0.65
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.77	0.66	0.01	0.02	0.37	0.39	0.02	0.10	0.12
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.32	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02

3.6. Grading (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59
Dust From Material Movement	—	—	—	—	—	2.78	2.78	—	1.34	1.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	2.54	2.62	< 0.005	0.12	—	0.12	0.11	—	0.11
Dust From Material Movement	—	—	—	—	—	0.50	0.50	—	0.24	0.24
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.46	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02
Dust From Material Movement	—	—	—	—	—	0.09	0.09	—	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.11	9.71	3.67	0.05	0.10	2.04	2.13	0.10	0.56	0.65
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.77	0.66	0.01	0.02	0.37	0.39	0.02	0.10	0.12
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.32	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.44	6.33	0.01	0.19	—	0.19	0.18	—	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.93	15.5	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.78	0.86	0.01	0.02	0.44	0.47	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.88	1.04	13.2	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.86	0.88	0.01	0.02	0.44	0.47	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.61	7.43	0.00	0.00	1.68	1.68	0.00	0.39	0.39
Vendor	0.03	1.01	0.47	0.01	0.01	0.24	0.25	0.01	0.07	0.07

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.11	1.36	0.00	0.00	0.31	0.31	0.00	0.07	0.07
Vendor	< 0.005	0.18	0.09	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.44	6.33	0.01	0.19	—	0.19	0.18	—	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.99	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.88	0.93	15.5	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.78	0.86	0.01	0.02	0.44	0.47	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.88	1.04	13.2	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.86	0.88	0.01	0.02	0.44	0.47	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.47	0.61	7.43	0.00	0.00	1.68	1.68	0.00	0.39	0.39
Vendor	0.03	1.01	0.47	0.01	0.01	0.24	0.25	0.01	0.07	0.07
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.11	1.36	0.00	0.00	0.31	0.31	0.00	0.07	0.07
Vendor	< 0.005	0.18	0.09	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.43	4.15	0.01	0.11	—	0.11	0.10	—	0.10
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.63	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.85	0.83	14.4	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.70	0.81	0.01	0.01	0.44	0.45	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.83	1.03	12.2	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.77	0.83	0.01	0.01	0.44	0.45	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.37	4.54	0.00	0.00	1.11	1.11	0.00	0.26	0.26
Vendor	0.02	0.63	0.29	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05

Vendor	< 0.005	0.12	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.70	11.7	0.02	0.32	—	0.32	0.30	—	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.40	3.43	4.15	0.01	0.11	—	0.11	0.10	—	0.10
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.63	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.85	0.83	14.4	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.70	0.81	0.01	0.01	0.44	0.45	0.01	0.12	0.13

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.83	1.03	12.2	0.00	0.00	3.13	3.13	0.00	0.73	0.73
Vendor	0.05	1.77	0.83	0.01	0.01	0.44	0.45	0.01	0.12	0.13
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.30	0.37	4.54	0.00	0.00	1.11	1.11	0.00	0.26	0.26
Vendor	0.02	0.63	0.29	< 0.005	< 0.005	0.16	0.16	< 0.005	0.04	0.05
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor	< 0.005	0.12	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	15.0	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	15.0	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.20	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	3.62	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.66	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.17	2.88	0.00	0.00	0.63	0.63	0.00	0.15	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.21	2.44	0.00	0.00	0.63	0.63	0.00	0.15	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	15.0	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02
Architectural Coatings	15.0	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.20	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	3.62	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.66	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.17	2.88	0.00	0.00	0.63	0.63	0.00	0.15	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.21	2.44	0.00	0.00	0.63	0.63	0.00	0.15	0.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.62	0.00	0.00	0.15	0.15	0.00	0.04	0.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.03	0.03	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Trenching (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.25	1.43	< 0.005	0.05	—	0.05	0.05	—	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.22	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Trenching (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.25	1.43	< 0.005	0.05	—	0.05	0.05	—	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.22	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.1.2. Mitigated

Mobile source emissions results are presented in Sections 2.5. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.05	0.86	0.36	0.01	0.07	—	0.07	0.07	—	0.07
Supermarket	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.06	0.96	0.45	0.01	0.08	—	0.08	0.08	—	0.08
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.05	0.86	0.36	0.01	0.07	—	0.07	0.07	—	0.07
Supermarket	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.06	0.96	0.45	0.01	0.08	—	0.08	0.08	—	0.08
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.16	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01
Supermarket	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Supermarket	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Supermarket	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	0.01	0.11	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Supermarket	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Total	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	4.22	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.33	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Total	6.92	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	4.22	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—
Total	4.58	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	1.13	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	4.22	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.33	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Total	6.92	0.19	20.7	< 0.005	0.02	—	0.02	0.01	—	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	4.22	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.36	—	—	—	—	—	—	—	—	—
Total	4.58	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00
Consumer Products	0.77	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Total	1.13	0.02	2.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—

Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—

Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—
Supermarket	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	7/1/2025	8/31/2025	5.00	44.0	—
Site Preparation	Site Preparation	9/1/2025	9/30/2025	5.00	22.0	—
Grading	Grading	10/1/2025	12/31/2025	5.00	66.0	—
Building Construction	Building Construction	4/1/2026	6/30/2027	5.00	326	—
Architectural Coating	Architectural Coating	3/1/2027	6/30/2027	5.00	88.0	—
Trenching	Trenching	1/1/2026	3/31/2026	5.00	64.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	22.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.14	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	110	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	239	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	51.7	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	47.9	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	2.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	22.5	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.14	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	110	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	239	18.5	LDA,LDT1,LDT2

Building Construction	Vendor	51.7	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	47.9	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	2.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	341,158	113,719	43,253	14,418	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)

Demolition	0.00	0.00	0.00	3,954	—
Site Preparation	—	23.0	33.0	0.00	—
Grading	—	58,006	66.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Supermarket	0.00	0%
Enclosed Parking with Elevator	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	690	0.05	0.01
2026	0.00	690	0.05	0.01
2027	0.00	690	0.05	0.01

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Total all Land Uses	3,347	3,347	3,347	1,221,655	30,618	30,618	30,618	11,175,570

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	3,347	3,347	3,347	1,221,655	30,618	30,618	30,618	11,175,570

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	246
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0

Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	246
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
341157.825	113,719	43,253	14,418	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO_2 and CH_4 and N_2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO_2	CH_4	N_2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	976,038	690	0.0489	0.0069	3,396,032
Supermarket	723,752	690	0.0489	0.0069	393,860
Enclosed Parking with Elevator	466,597	690	0.0489	0.0069	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO_2 and CH_4 and N_2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO_2	CH_4	N_2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	977,687	690	0.0489	0.0069	0.00
Supermarket	723,752	690	0.0489	0.0069	393,860
Enclosed Parking with Elevator	466,597	690	0.0489	0.0069	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	9,169,355	85,706
Supermarket	3,554,439	0.00
Enclosed Parking with Elevator	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	9,169,355	85,706
Supermarket	3,554,439	0.00
Enclosed Parking with Elevator	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	145	—
Supermarket	163	—
Enclosed Parking with Elevator	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	145	—
Supermarket	163	—
Enclosed Parking with Elevator	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Supermarket	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Supermarket	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Supermarket	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Supermarket	Supermarket refrigeration and condensing units	R-404A	3,922	26.5	16.5	16.5	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	17.6	annual days of extreme heat
Extreme Precipitation	5.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	8.48	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A

Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	97.0
AQ-PM	56.9
AQ-DPM	69.1
Drinking Water	74.3
Lead Risk Housing	96.0
Pesticides	0.00
Toxic Releases	57.8
Traffic	91.2
Effect Indicators	—
CleanUp Sites	98.2
Groundwater	92.7
Haz Waste Facilities/Generators	91.7
Impaired Water Bodies	0.00
Solid Waste	52.9
Sensitive Population	—
Asthma	73.1
Cardio-vascular	32.2
Low Birth Weights	69.7
Socioeconomic Factor Indicators	—
Education	94.0
Housing	87.9
Linguistic	82.6
Poverty	70.7

Unemployment	37.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	17.97767227
Employed	23.22597203
Median HI	32.61901707
Education	—
Bachelor's or higher	4.157577313
High school enrollment	22.50737842
Preschool enrollment	69.3314513
Transportation	—
Auto Access	33.77389965
Active commuting	47.17053766
Social	—
2-parent households	50.42987296
Voting	4.042089054
Neighborhood	—
Alcohol availability	39.20184781
Park access	34.76196587
Retail density	75.23418452
Supermarket access	16.92544591
Tree canopy	24.29103041
Housing	—
Homeownership	58.06493007

Housing habitability	9.816501989
Low-inc homeowner severe housing cost burden	37.52085205
Low-inc renter severe housing cost burden	1.142050558
Uncrowded housing	2.412421404
Health Outcomes	—
Insured adults	4.234569485
Arthritis	69.6
Asthma ER Admissions	34.2
High Blood Pressure	74.3
Cancer (excluding skin)	87.6
Asthma	30.0
Coronary Heart Disease	37.1
Chronic Obstructive Pulmonary Disease	42.5
Diagnosed Diabetes	13.1
Life Expectancy at Birth	79.3
Cognitively Disabled	12.5
Physically Disabled	12.7
Heart Attack ER Admissions	85.4
Mental Health Not Good	14.9
Chronic Kidney Disease	20.1
Obesity	12.1
Pedestrian Injuries	95.3
Physical Health Not Good	12.8
Stroke	34.3
Health Risk Behaviors	—
Binge Drinking	54.2
Current Smoker	20.8

No Leisure Time for Physical Activity	13.3
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	29.7
Elderly	58.6
English Speaking	12.1
Foreign-born	95.0
Outdoor Workers	6.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	41.4
Traffic Density	88.6
Traffic Access	63.8
Other Indices	—
Hardship	94.0
Other Decision Support	—
2016 Voting	13.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	94.0
Healthy Places Index Score for Project Location (b)	15.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Project plans. Population estimate from City of Los Angeles VMT Calculator, v.1.4
Construction: Construction Phases	Developer information
Construction: Off-Road Equipment	—
Operations: Hearths	Project plans

DouglasKim+Associates, LLC

MATES V TOXIC EMISSIONS OVERVIEW

Overview | Cancer Risk | Non-Cancer Health Impacts | SB535 Disadvantaged Communities | CalEnviroScreen 3.0
Healthy Places Index | Green Space | Air Toxics Trends | Gridded Cancer Risk | Criteria Pollutant Map | Criteria Pollutant Trends

About Air Toxics Cancer Risk

Information about community profile statistics
Information about emission sources
Download PDF

Residential Air Toxics Cancer Risk at MATES Monitoring Sites

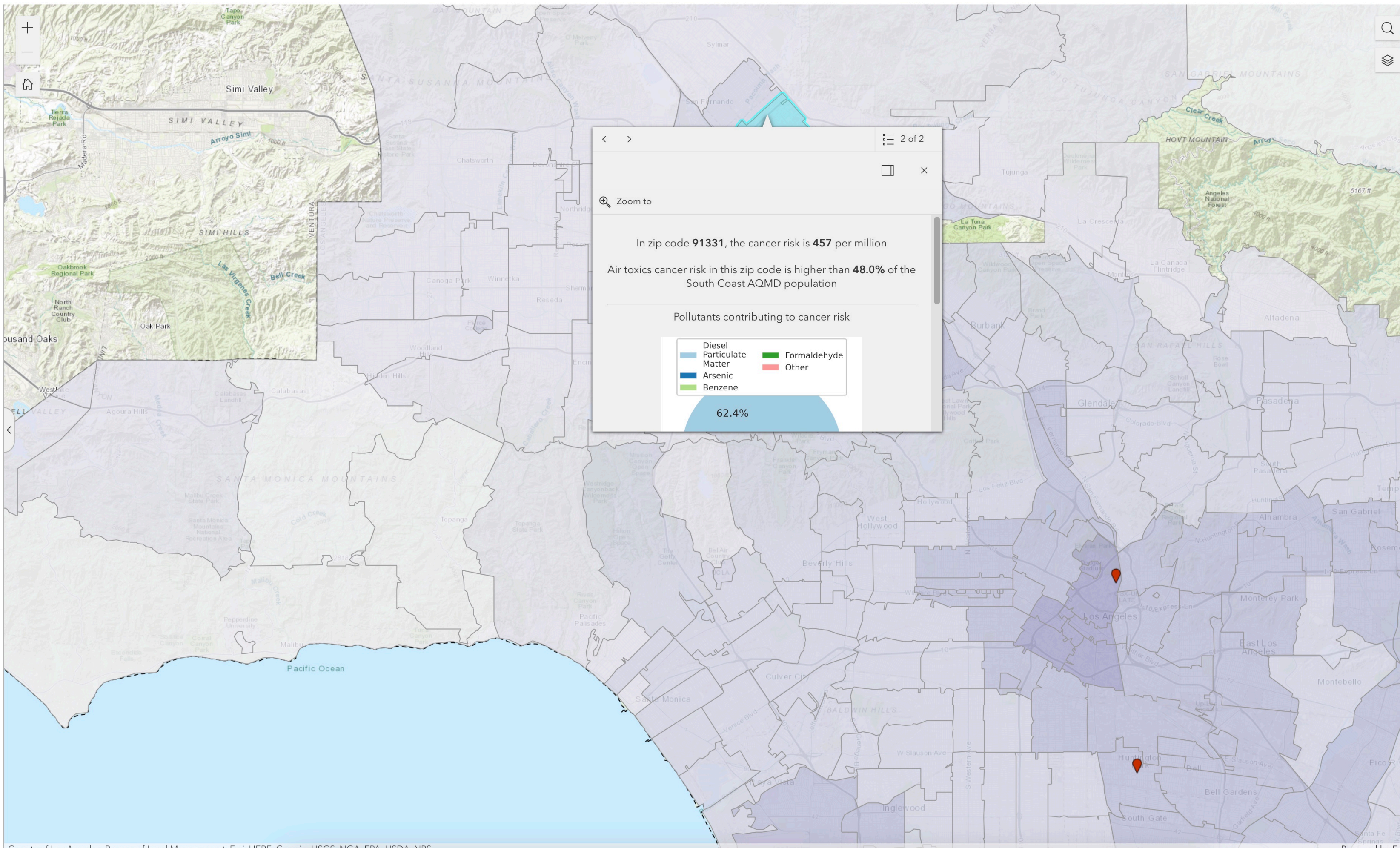
Residential Air Toxics Cancer Risk Calculated from Model Data

Cancer Risk [per million]

- 1601 - 4800
- 1451 - 1600
- 1301 - 1450
- 1151 - 1300
- 1001 - 1150
- 851 - 1000
- 701 - 850
- 551 - 700
- 401 - 550
- 251 - 400
- 101 - 250
- 0 - 100

South Coast AQMD Boundary

The air toxics cancer risk data presented in the MATES Data Visualization is calculated using a population-weighted average.



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CALENVIROSCREEN 4.0 OUTPUT

CalEnviroScreen 4.0 from OEHHA

SB 535 Disadvantaged Communities Map | CalEnviroScreen Website | Indicator Maps | About

The CalEnviroScreen 4.0 tool shows cumulative impacts in California communities by census tract.

How to use this map

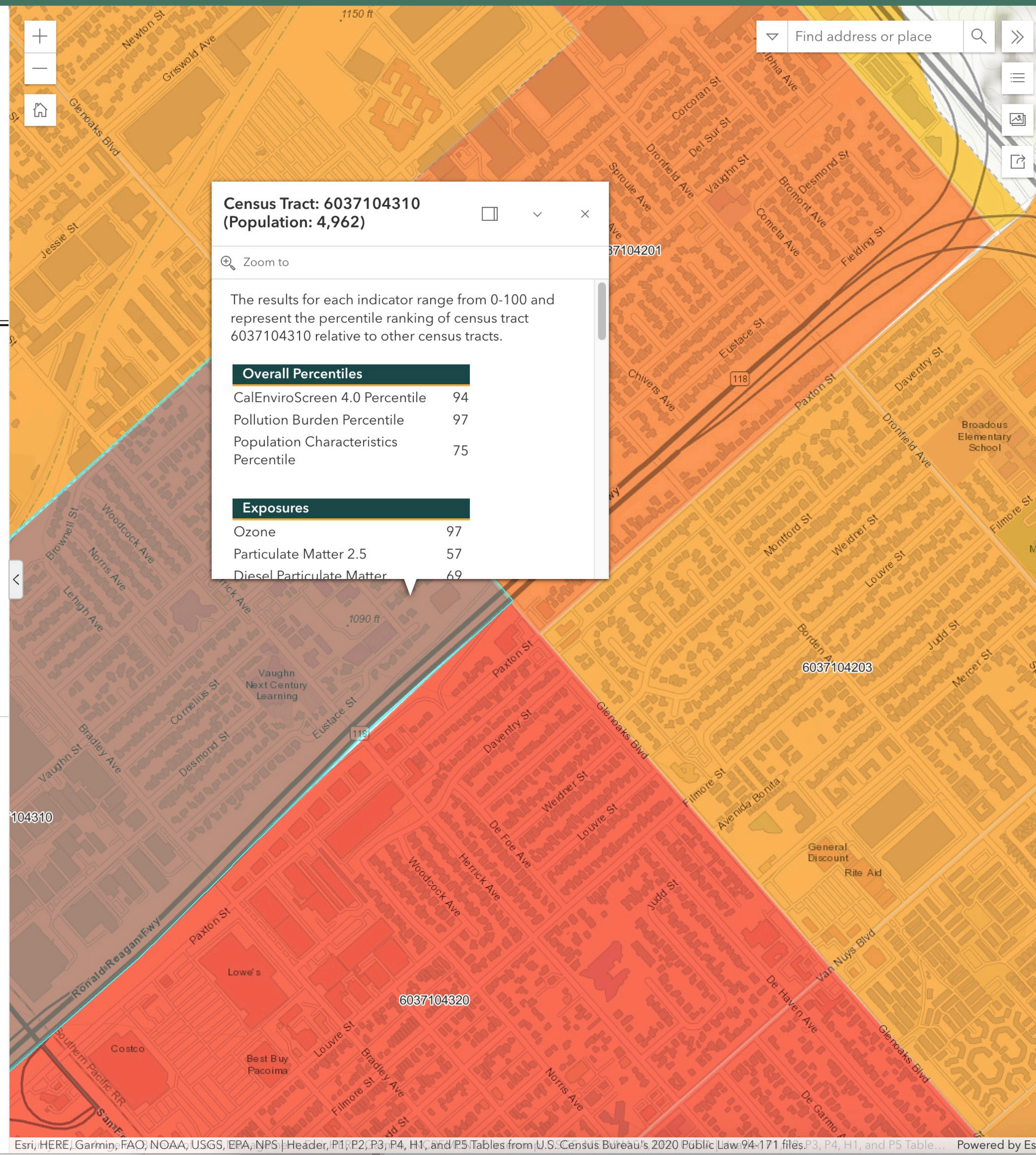
- Use your mouse or touchpad to pan around.
- Zoom in/out with a mouse wheel or the +/- icons.
- Search by location or census tract number with the search icon.
- Click on a census tract to view additional information in the pop-up window.
- Dock the pop-up window to the side of the screen by clicking the dock icon.
- Export a map view that includes the legend and popup using the screenshot widget.
- Learn more about CalEnviroScreen 4.0 and how this map was created here

Overall Percentile

CalEnviroScreen 4.0 Results

- >90 - 100 (Highest Scores)
- >80 - 90
- >70 - 80
- >60 - 70
- >50 - 60
- >40 - 50
- >30 - 40
- >20 - 30
- >10 - 20
- 0 - 10 (Lowest Scores)

CalEnviroScreen 4.0 High Pollution, Low Population



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DEMOLITION ANALYSIS

DouglasKim+Associates,LLC

CONSTRUCTION BUILDING DEBRIS

Materials	Total SF	Height	Cubic Yards	Pounds per Cub	Tons	Truck Capacity (CY)	Truck Trips	Source
Construction and Debris	0	0	-	484	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
General Building	9,240	30	3,388	1,000	1,694	10	678	*Federal Emergency Management Agency, Debris Estimating Field Guide (FEMA 329), September 2010. General Building Formula*
Single Family Residence	-	12	-	1,000	-	10	-	Federal Emergency Management Agency. Debris Estimating Field Guide (FEMA 329), September 2010. Single Family Residence Formula, assumes 1 story, Medium vegetative cover multiplier (1.3)
Multi-Family Residence		12	-	1,000	-	10	-	
Mobile Home				1,000	-	10	-	
Mixed Debris			-	480	-	10	-	Florida Department of Environmental Protection A Fact Sheet for C&D Debris Facility Operators
Vegetative Debris (Hardwoods)			-	500	-	10	-	
Vegetative Debris (Softwoods)			23	333	4	10	5	
Asphalt or concrete (Constructior	101,692	0.5	1,883	2,400	2,260	10	377	
TOTAL			5,294		3,958		1,059	

DOUGLAS KIM + ASSOCIATES, LLC

TRAFFIC NOISE CALCULATIONS

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Glenoaks Blvd

East/West Vaughn St

Day: Thursday Date: March 16, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	252	265	27	20
BIKES	25	33	3	6
BUSES	15	20	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	264	7.30	398	7.30	94	7.30	82	7.30
PM PK 15 MIN	280	17.00	321	15.30	83	15.30	79	17.15
AM PK HOUR	962	7.30	1417	7.15	350	7.00	314	7.00
PM PK HOUR	1055	17.00	1184	17.00	288	17.00	255	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	90	759	31	880
8-9	49	755	28	832
9-10	28	673	19	720
15-16	57	815	55	927
16-17	45	862	51	958
17-18	71	926	58	1055
TOTAL	340	4790	242	5372

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	35	1308	35	1378
8-9	25	943	22	990
9-10	12	750	17	779
15-16	35	1065	35	1135
16-17	33	1035	22	1090
17-18	49	1088	47	1184
TOTAL	189	6189	178	6556

	TOTAL	**XING S/L**		**XING N/L**	
Hours	N-S	Ped	Sch	Ped	Sch
7-8	2258	23	37	23	12
8-9	1822	14	6	13	0
9-10	1499	6	0	2	0
15-16	2062	23	9	14	3
16-17	2048	6	0	8	2
17-18	2239	27	4	4	2
TOTAL	11928	99	56	64	19

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	93	224	350
8-9	19	65	91	175
9-10	13	21	64	98
15-16	25	66	124	215
16-17	34	86	133	253
17-18	94	73	121	288
TOTAL	218	404	757	1379

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	155	125	34	314
8-9	121	50	37	208
9-10	85	14	20	119
15-16	147	48	38	233
16-17	130	43	39	212
17-18	166	48	41	255
TOTAL	804	328	209	1341

	TOTAL	**XING W/L**		**XING E/L**	
Hours	E-W	Ped	Sch	Ped	Sch
7-8	664	15	6	25	9
8-9	383	8	3	16	1
9-10	217	3	0	10	2
15-16	448	23	8	19	0
16-17	465	12	7	5	0
17-18	543	23	4	7	0
TOTAL	2720	84	28	82	12

TRAFFIC VOLUME ADJUSTMENTS

DouglasKim+Associates,LLC

North/South	Glenoaks Boulevard
East/West	Vaughn St.
Year	2017
Hour	7:00-8:00 A.M.
Source	https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf

	NB Approach	SB Approach	EB Approach	WB Approach	
LT					
TH					
RT					
Total	880	1378	350	314	1.07%

2017	880	1,378	3,277	314	2,258
2018	889	1,392	3,310	317	2,281
2019	898	1,406	3,343	320	2,303
2020	907	1,420	3,376	324	2,326
2021	916	1,434	3,410	327	2,350
2022	925	1,448	3,444	330	2,373
2023	934	1,463	3,479	333	2,397
2024	**943**	**1,477**	**3,513**	**337**	**2,421**

	NB Approach	SB Approach	EB Approach	WB Approach		
Auto	763	1,195	2,841	272	6,048,810	82.5%
MDT	119	186	441	42	940,092	12.8%
HDT	3	5	12	1	25,348	0.3%
Buses	1	2	4	0	9,386	0.1%
MCY	21	33	79	8	167,287	2.3%
Aux	18	28	67	6	142,856	1.9%
Total	925	1,448	3,444	330	7,333,779	100.0%

APPLICATIONS

OWNER'S DECLARATION OF BIOLOGICAL RESOURCES

The California Environmental Quality Act (CEQA) directs public agencies to assess and disclose the environmental effects of the projects it approves. In determining whether a proposed project is subject to CEQA, the City of Los Angeles is required to consider any potentially adverse impacts the project may have on biological resources. Failure by a project applicant to disclose known biological resources on the project site may result in a violation of CEQA.

Date of Site Visit: 1/29/2024

Project Address or APN(s)[1]: 11623 Glenoaks Blvd, Pacoima, CA 91331

Does the project site contain certain known biological resources, and if so, will the project require biological analysis by a qualified biologist? (Follow the instructions for each respective answer.)

- ☐ **Yes.** The project site contains one or more of the following biological resources: (Check all that apply)
  - ☐ Water Resources, including but not limited to, streams, wetlands, or other permanent / seasonal water bodies
  - ☐ Protected Trees and/or Shrubs, or certain trees within the Coastal Zone (See Appendix A)
  - ☐ Other sensitive/special resources requiring additional review: (Describe below)

- ☒ **No.** The project site does not contain any of the above biological resources.

If No, sign and notarize the signature at the bottom of the form and return the notarized form (plus Appendix B attachments) to the appropriate department within the City of Los Angeles at the time of filing for permits/entitlements.

If Yes, will the project remove or possibly affect any of the above marked biological resources (e.g., set up construction staging near tree trunks)?

[1] Include the entire site, not just the development footprint.

☐ **Yes.** The project will require biological resources analysis (Biological Resources Report) by a Qualified Biologist. (See Appendix A)

▣ **No.** The project site will not remove or possibly affect any of the above biological resources.

If No, sign and notarize the signature at the bottom of the form and return the notarized form (plus Appendix B attachments) to the appropriate department within the City of Los Angeles at the time of filing for permits/entitlements.

Owner's Declaration

I own the property located at 11623 Glenoaks Blvd, Pacoima, CA 91331. I have read the above "Notice to Owner." I acknowledge and understand that should the City determine that the project site contains any of the above biological resources, the City may require biological resources analysis by a qualified biologist prior to completing the CEQA analysis. I certify that the project site does not contain any of the above biological resources to the best of my knowledge.

Name of the Owner (Print) 118, LP J. KEVIN BRUNK

Owner Signature ______________

Date 1-30-24

Notary Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of ~~California~~ LR Idaho
County of ~~Los Angeles~~ Ada

On 01-30-2024 before me, Leigh Anne Rollag
(insert name and title of the officer)

Personally appeared J Kevin Brunk, who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the ____ person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature ______________ (Seal)

LEIGH ANNE ROLLAG
Notary Public - State of Idaho
Commission Number 20232987
My Commission Expires 09-11-2029

APPENDIX A - REFERENCES

Qualified Biologist. A person with the appropriate education, training, and experience to conduct biological surveys, monitor Project activities that have the potential to affect biological resources, provide construction worker education programs related to the protection of biological resources, and supervise or perform other tasks related to biological resources; possesses a Bachelor of Science degree or Bachelor of Arts degree in biology, ecology, or a related environmental science; has at least five years of professional experience that requires knowledge of natural history, habitat affinities, and identification of flora and fauna species, and relevant local, state and federal laws and regulations governing the protection of biological resources; and meets the California Department of Fish and Wildlife (CDFW) qualifications for botanical field surveyors.

Protected Trees & Shrubs

- Oak, including valley oak (*Quercus lobota*) and coast live oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California but excluding the California scrub oak (*Quercus berberidifolia*)
- Southern California black walnut (*Juglans californica*)
- Western sycamore (*Platanus racemosa*)
- California bay (*Umbellularia californica*)
- Mexican elderberry (*Sambucus mexicana*)
- Toyon (*Heteromeles arbutifolia*)

Monarch Butterfly Overwintering Trees (only applicable within the Coastal Zone)

- Monterey cypress (*Cupressus macrocarpa*)
- Monterey pine (*Pinus radiata*)
- Coast redwood (*Sequoia sempervirens*)
- Coast live oak (*Quercus agrifolia*)
- Douglas-fir (*Pseudotsuga menzesii*)
- Western sycamore (*Platanus racemosa*)
- Bishop pine (*Pinus muricata*)
- Any Eucalyptus species

APPENDIX B - REQUIRED DOCUMENTS

- Site Plan
- Tree Disclosure Statement

NOISE TECHNICAL REPORT

Introduction

This technical report evaluates noise impacts from construction and operation of a Proposed Project at 11623 North Glenoaks Boulevard in the City of Los Angeles. The analysis discusses applicable regulations and compares impacts to appropriate thresholds of significance. Noise measurements, calculation worksheets, and a map of noise receptors and measurement locations are included in the Technical Appendix to this analysis.

Fundamentals of Noise

Characteristics of Sound

Sound can be described in terms of its loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, the A-weighted scale (dBA) is used to reflect the normal hearing sensitivity range. On this scale, the range of human hearing extends from 3 to 140 dBA. Table 1 provides examples of A-weighted noise levels from common sources.

Table 1
A-Weighted Decibel Scale

Typical A-Weighted Sound Levels	Sound Level (dBA L_{eq})
Near Jet Engine	130
Rock and Roll Band	110
Jet flyover at 1,000 feet	100
Power Motor	90
Food Blender	80
Living Room Music	70
Human Voice at 3 feet	60
Residential Air Conditioner at 50 feet	50
Bird Calls	40
Quiet Living Room	30
Average Whisper	20
Rustling Leaves	10
Source: Cowan, James P., Handbook of Environmental Acoustics, 1993. These noise levels are approximations intended for general reference and informational use.	

Noise Definitions. This noise analysis discusses sound levels in terms of equivalent noise level (L_{eq}), maximum noise level (L_{max}) and the Community Noise Equivalent Level (CNEL).

- Equivalent Noise Level (L_{eq}): L_{eq} represents the average noise level on an energy basis for a specific time period. Average noise level is based on the energy content (acoustic energy) of sound. For example, the L_{eq} for one hour is the energy average noise level during that hour. L_{eq} can be thought of as a continuous noise level of a certain period equivalent in energy content to a fluctuating noise level of that same period.

- Maximum Noise Level (L_{max}): L_{max} represents the maximum instantaneous noise level measured during a given time period.

- Community Noise Equivalent Level (CNEL): CNEL is an adjusted noise measurement scale of average sound level during a 24-hour period. Due to increased noise sensitivities during evening and night hours, human reaction to sound between 7:00 P.M. and 10:00 P.M. is as if it were actually 5 dBA higher than had it occurred between 7:00 A.M. and 7:00 P.M. From 10:00 P.M. to 7:00 A.M., humans perceive sound as if it were 10 dBA higher. To account for these sensitivities, CNEL figures are obtained by adding an additional 5 dBA to evening noise levels between 7:00 P.M. and 10:00 P.M. and 10 dBA to nighttime noise levels between 10:00 P.M. and 7:00 A.M. As such, 24-hour CNEL figures are always higher than their corresponding actual 24-hour averages.

Effects of Noise. The degree to which noise can impact an environment ranges from levels that interfere with speech and sleep to levels that can cause adverse health effects. Most human response to noise is subjective. Factors that influence individual responses include the intensity, frequency, and pattern of noise; the amount of background noise present; and the nature of work or human activity exposed to intruding noise. According to the National Institute of Health (NIH), extended or repeated exposure to sounds at or above 85 dB can cause hearing loss. Sounds of 70 dBA or less, even after continuous exposure, are unlikely to cause hearing loss.[1] The World Health Organization (WHO) reports that adults should not be exposed to sudden “impulse” noise events of 140 dB or greater. For children, this limit is 120 dB.[2]

Exposure to elevated nighttime noise levels can disrupt sleep, leading to increased levels of fatigue and decreased work or school performance. For the preservation of healthy sleeping environments, the WHO recommends that continuous interior noise levels not exceed 30 dBA and that individual noise events of 45 dBA or higher be avoided.[3] Assuming a conservative exterior to interior sound reduction of 15 dBA, continuous exterior noise levels should therefore not exceed 45 dBA. Individual exterior events of 60 dBA or higher should also be limited. Some epidemiological studies have shown a weak association between long-term exposure to noise levels of 65 to 70 dBA and cardiovascular effects, including ischemic heart disease and hypertension. However, at this time, the relationship is largely inconclusive.

People with normal hearing sensitivity can recognize small changes in sound levels of approximately 3 dBA. Changes of at least 5 dBA can be readily noticeable while sound level increases of 10 dBA or greater are perceived as a doubling in loudness.[4] However, during daytime, few people are highly annoyed by noise levels below 55 dBA L_{eq}.[5]

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1 National Institute of Health, National Institute on Deafness and Other Communication, www.nidcd.nih.gov/health/noise-induced-hearing-loss.
2 World Health Organization, Guidelines for Community Noise, 1999.
3 Ibid.
4 Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2018.
5 World Health Organization, Guidelines for Community Noise, 1999.

Noise Attenuation. Noise levels decrease as the distance from noise sources to receivers increases. For each doubling of distance, noise from stationary sources can decrease by about 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt and grass). For example, if a point source produces a noise level of 89 dBA at a reference distance of 50 feet over an asphalt surface, its noise level would be approximately 83 dBA at a distance of 100 feet, 77 dBA at 200 feet, etc. Noises generated by mobile sources such as roadways decrease by about 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of distance. It should be noted that because decibels are logarithmic units, they cannot be added or subtracted. For example, two cars each producing 60 dBA of noise would not produce a combined 120 dBA.

Noise is most audible when traveling by direct line of sight, an unobstructed visual path between noise source and receptor. Barriers that break line of sight between sources and receivers, such as walls and buildings, can greatly reduce source noise levels by allowing noise to reach receivers by diffraction only. As a result, sound barriers can generally reduce noise levels by up to 15 dBA.[6] The effectiveness of barriers can be greatly reduced when they are not high or long enough to completely break line of sight from sources to receivers.

Regulatory Framework

Noise

Federal. No federal noise standards regulate environmental noise associated with short-term construction activities or long-term operations of development projects. As such, temporary and long-term noise impacts produced by the Project would be largely regulated or evaluated by State and City of Los Angeles standards designed to protect public well-being and health.

State. The State's 2017 General Plan Guidelines establish county and city standards for acceptable exterior noise levels based on land use. These standards are incorporated into land use planning processes to prevent or reduce noise and land use incompatibilities. Table 2 illustrates State compatibility considerations between land uses and exterior noise levels.

California Government Code Section 65302 also requires each county and city to prepare and adopt a comprehensive long-range general plan for its physical development. Section 65302(f) requires a noise element to be included in the general plan. This noise element must identify and appraise noise problems in the community, recognize State noise control guidelines, and analyze and quantify current and projected noise levels.

The State has also established noise insulation standards for new multi-family residential units, hotels, and motels that are subject to relatively high levels of noise from transportation. The noise insulation standards, collectively referred to as the California Noise Insulation Standards (Title 24, California Code of Regulations) set forth an interior standard of 45 dBA CNEL for habitable rooms.

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6 California Department of Transportation, Technical Noise Supplement to the Traffic Noise Analysis Protocol, September 2013. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf

The standards require an acoustical analysis which indicates that dwelling units meet this interior standard where such units are proposed in areas subject to exterior noise levels greater than 60 dBA CNEL. Local jurisdictions typically enforce the California Noise Insulation Standards through the building permit application process.

Los Angeles County Airport Land Use Commission Comprehensive Land Use Plan. In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the Airport Land Use Commission and for coordinating the airport planning of public agencies within the County. The Airport Land Use Commission coordinates planning for the areas surrounding public use airports. The Comprehensive Land Use Plan provides for the orderly expansion of Los Angeles County's public use airports and the areas surrounding them. It is intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. In formulating the Comprehensive Land Use Plan, the Los Angeles County Airport Land Use Commission has established provisions for safety, noise insulation, and the regulation of building height within areas adjacent to each of the public airports in the County.

City of Los Angeles General Plan Noise Element. The City of Los Angeles General Plan includes a Noise Element that includes policies and standards to guide the control of noise to protect residents, workers, and visitors. Its primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses. It includes programs applicable to construction projects that call for protection of noise sensitive uses and use of best practices to minimize short-term noise impacts.[7] However, the Noise Element contains no quantitative or other thresholds of significance for evaluating a project's noise impacts. Instead, it adopts the State's guidance on noise and land use compatibility, shown in Table 2, "to help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels." It also includes a policy and an objective that are relevant for the Proposed Project:

> **Policy 2.2:** Enforce and/or implement applicable city, state, and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.
>
> **Objective 3** (Land Use Development): Reduce or eliminate noise impacts associated with proposed development of land and changes in land use.

There are also two programs that are applicable to development projects:

> **Program 11:** For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and city procedures.

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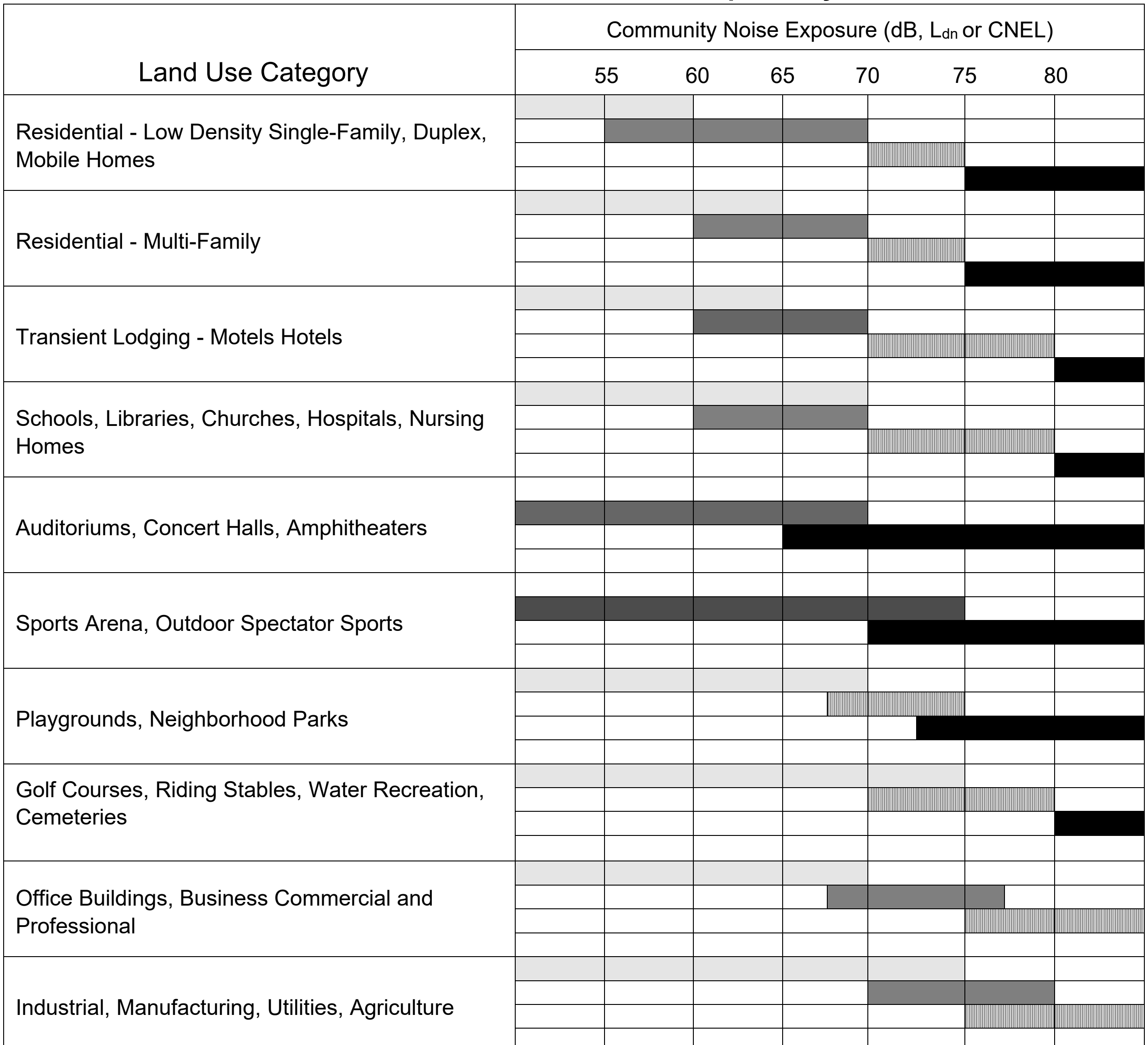
7 The L.A. CEQA Thresholds Guide defined noise sensitive uses as residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks.

Table 2
State of California Noise/Land Use Compatibility Matrix



Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable - New construction or development should be undertaken only after a detailed 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 system or air conditioning will normally suffice.

Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable - New construction or development should generally not be undertaken.

Source: California Office of Planning and Research "General Plan Guidelines, Noise Element Guidelines (Appendix D, Figure 2), 2017.

Program 12: When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in the California Environmental Quality Act so as to achieve an interior noise level of a CNEL of 45 dB, or less, in any habitable room, as required by Los Angeles Municipal Code Section 91.

<u>City of Los Angeles Municipal Code.</u> The City of Los Angeles Municipal Code (LAMC) contains regulations that would regulate noise from the Project's temporary construction activities. Section 41.40(a) would prohibit construction activities between 9:00 P.M. and 7:00 A.M., Monday through Friday. Subdivision (c) would further prohibit such activities from occurring before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday, or at any time on any Sunday. These restrictions serve to limit specific Project construction activities to Monday through Friday 7:00 A.M. to 9:00 P.M., and 8:00 A.M. to 6:00 P.M. on Saturdays or national holidays.

> <u>*SEC.41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK—WHEN PROHIBITED.*</u>
>
> *(a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power drive drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling, hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.*
>
> *(c) No person, other than an individual homeowner engaged in the repair or construction of his single-family dwelling shall perform any construction or repair work of any kind upon, or any earth grading for, any building or structure located on land developed with residential buildings under the provisions of Chapter I of this Code, or perform such work within 500 feet of land so occupied, before 8:00 A.M. or after 6:00 P.M. on any Saturday or national holiday nor at any time on any Sunday. In addition, the operation, repair, or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited on Saturdays and on Sundays during the hours herein specific…*

Section 112.04 of the LAMC bans the use of gas-powered leaf blowers within 500 feet of a residence between 10:00 P.M. and 7:00 A.M. This also includes lawn mowers, lawn edgers, riding tractors, or other equipment that makes loud sounds.

Section 112.05 of the LAMC establishes noise limits for powered equipment and hand tools operated in a residential zone or within 500 feet of any residential zone. Of particular importance to construction activities is subdivision (a), which institutes a maximum noise limit of 75 dBA as measured at a distance of 50 feet from the activity for the types of construction vehicles and equipment that would likely be used in the construction of the Project. However, the LAMC notes that these limitations would not necessarily apply if it can be proven that the Project's compliance would be technically infeasible despite the use of noise-reducing means or methods.

> *<u>SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS</u>*
>
> *Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:*
>
> *(a) 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;*
>
> *(b) 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;*
>
> *(c) 65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.*
>
> *Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.*

In addition, the LAMC regulates long-term operations of land uses. This includes Section 111.02, which discusses the measurement procedure and criteria regarding the sound level of "offending" noise sources. A noise source causing a 5 dBA increase over the existing average ambient noise levels of an adjacent property is considered to create a noise violation. However, Section 111.02(b) provides a 5 dBA allowance for noise sources lasting more than five but less than 15 minutes in any 1-hour period, and a 10 dBA allowance for noise sources causing noise lasting 5 minutes or less in any 1-hour period. In accordance with these regulations, a noise level increase from certain city-regulated noise sources of five dBA over the existing or presumed ambient noise level at an adjacent property is considered a violation.

Section 112.01 of the LAMC prohibits any amplified noises, especially those from outdoor sources (e.g., outdoor speakers, stereo systems) from exceeding the ambient noise levels of adjacent properties by more than 5 dBA. Any amplified noises would also be prohibited from being audible at any distance greater than 150 feet from the Project's property line, as the Project is located within 500 feet of residential zones.

SEC.112.01. RADIOS, TELEVISION SETS, AND SIMILAR DEVICES

(a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area.

(b) Any noise level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, shall be a violation of the provisions of this section.

(c) Any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than five (5) decibels shall be a violation of the provisions of this section.

Section 112.02 prevents Project heating, ventilation, and air conditioning (HVAC) systems and other mechanical equipment from elevating ambient noise levels by more than 5 dBA.

SEC.112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PLUMBING, FILTERING EQUIPMENT

(a) It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property … to exceed the ambient noise level by more than five decibels.

The LAMC also regulates vehicle-related noise. Section 114.02 prohibits the operation of any motor driven vehicles upon any property within the City in a manner that would cause the noise level on the premises of any occupied residential property to elevate ambient noise levels by more than 5 dBA. Section 114.03 prohibits loading and unloading causing any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building between the hours of 10:00 P.M. and 7:00 A.M. Section 114.06 requires vehicle theft alarm systems to be silenced within five minutes.

Existing Conditions

Noise Sensitive Receptors

The Project Site is located in the Pacoima neighborhood near the Ronald Reagan Freeway. Noise-sensitive receptors within 0.25 miles of the Project Site include, but are not limited to, the following representative sampling:

- Residences, Eustace Street; as close as five feet southwest of the Project Site.

- Via Avanta Health Care Facility; five feet north of the Project Site.
- Residences, Desmond Street; as close as 40 feet northwest of the Project Site.
- Residences, Glenoaks Boulevard (northeast side); 140 feet northeast of the Project Site.
- Middle School, 13223 Eustace Street; 180 feet southwest of the Project Site.
- Residences – Paxton Street; as close as 390 feet southeast of the Project Site.

Existing Ambient Noise Levels

The Project Site is a former Department of Motor Vehicles facility that is vacant. As such, there is no noise generated at the Project Site.

In July 2024, DKA Planning took short-term noise measurements near the Project site to determine the ambient noise conditions of the neighborhood near sensitive receptors.[8] As shown in Table 3, noise levels along roadways near the Project Site ranged from 53.9 to 73.3 dBA L_{eq}, which was generally consistent with the traffic volumes on Desmond Street and Glenoaks Boulevard, respectively. Figure 1 illustrates where ambient noise levels were measured near the Project Site to establish the noise environment and their relationship to the applicable sensitive receptor(s). 24-hour CNEL noise levels are generally considered “Normally Acceptable” and “Normally Unacceptable” for the types of land uses near the Project Site.

8 Noise measurements were taken using a Quest Technologies Sound Examiner SE-400 Meter. The Sound Examiner meter complies with the American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) for general environmental measurement instrumentation. The meter was equipped with an omni-directional microphone, calibrated before the day’s measurements, and set at approximately five feet above the ground.

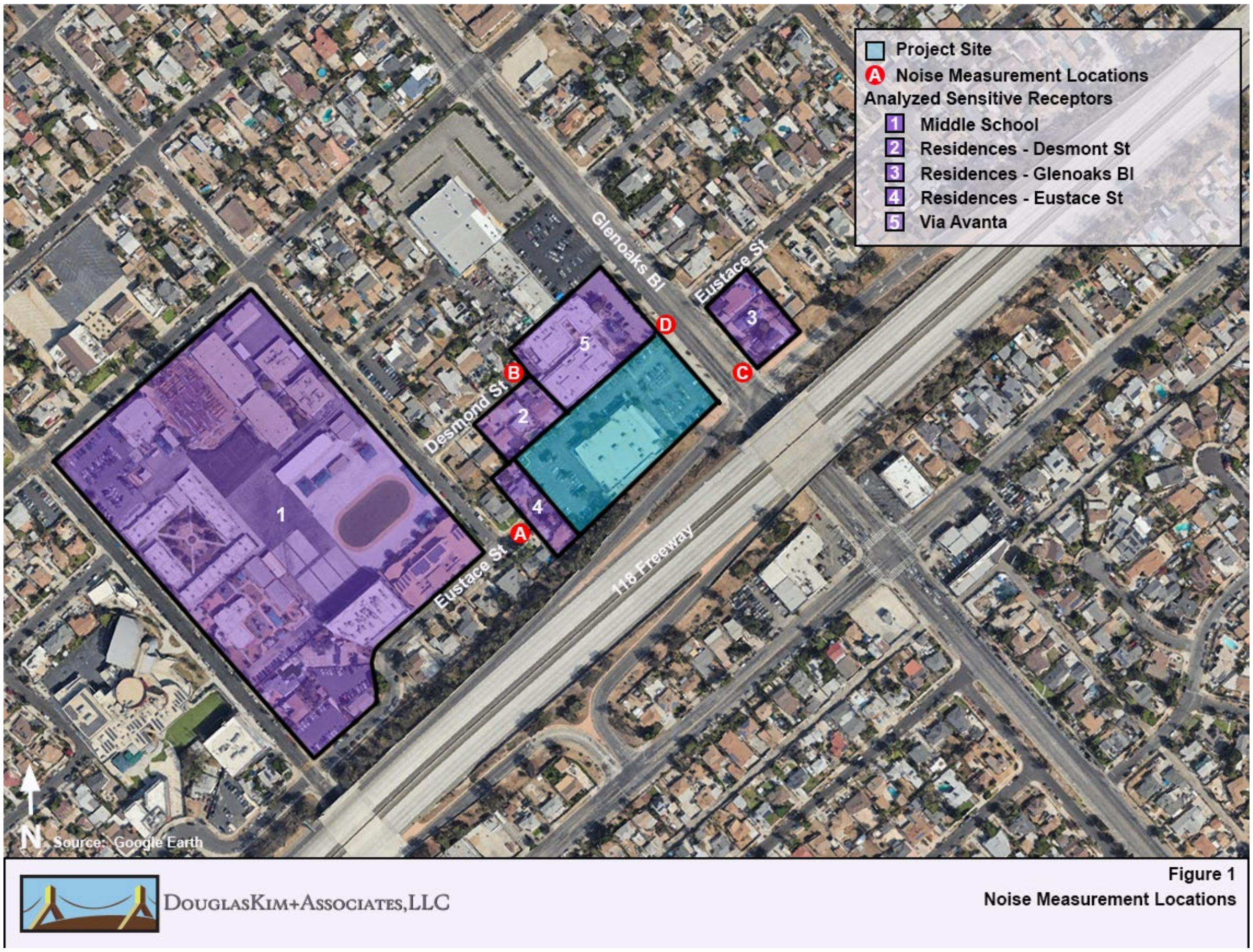


Figure 1
Noise Measurement Locations

Table 3
Existing Noise Levels

Noise Measurement Locations	Primary Noise Source	Sound Levels		Nearest Sensitive Receptor(s)	Noise/Land Use Compatibility[b]
		dBA (L_{eq})	dBA (CNEL)[a]		
A. 13215 Eustace St.	Traffic on Eustace St.	63.1	61.1	Residences – Eustace St, Middle School	Conditionally Acceptable
B. 13222 Desmond St.	Traffic on Desmond St.	53.9	51.9	Residences – Desmond St.	Normally Acceptable
C. 11624 Glenoaks Bl.	Traffic on Glenoaks Bl.	73.3	71.3	Residences – Glenoaks Bl.	Normally Unacceptable
D. Via Avanta	Traffic on Glenoaks Bl.	68.2	66.2	Via Avanta Facility	Conditionally Acceptable

[a] Estimated based on short-term (15-minute) noise measurement using Federal Transit Administration procedures from 2018 Transit Noise and Vibration Impact Assessment Manual, Appendix E, Option 4.
[b] Pursuant to California Office of Planning and Research "General Plan Guidelines, Noise Element Guidelines, 2017. When noise measurements apply to two or more land use categories, the more noise-sensitive land use category is used. See Table 2 above for definition of compatibility designations.

Source: DKA Planning, 2024

Project Impacts

Methodology

On-Site Construction Activities. Construction noise levels at off-site sensitive receptors were modeled employing the ISO 9613-2 sound attenuation methodologies using the SoundPLAN Essential model (version 5.1). This software package considers reference equipment noise levels, maximum allowable noise levels allowed by the LAMC, noise management techniques, distance to receptors, and any attenuating features to predict noise levels from sources like construction equipment. Construction noise sources were modeled as area sources to reflect the mobile nature of construction equipment. These vehicles would not operate directly where the Project's property line abuts adjacent structures, as they would retain some setback to preserve maneuverability. This equipment would also occasionally operate at reduced power and intensity to maintain precision at these locations.

Off-Site Construction Noise Activities. The Project's off-site construction noise impact from haul trucks, vendor deliveries, worker commutes, and other vehicles accessing the Project Site was analyzed by considering the Project's anticipated vehicle trip generation with existing traffic and roadway noise levels along local roadways, particularly those likely to be part of any haul route. Because it takes a doubling of traffic volumes on a roadway to generate the increased sound energy it takes to elevate ambient noise levels by 3 dBA,[9] the analysis focused on whether truck and auto traffic would double traffic volumes on key roadways to be used for hauling soils to and/or from the Project Site during construction activities.[10] Because haul trucks generate more noise than traditional passenger vehicles, a 19.1 passenger car equivalency (PCE) was used to convert haul truck trips to a reference level conversion to an equivalent number of passenger vehicles.[11] For vendor deliveries, a 13.1 PCE was used to reflect an even blend of medium- and heavy-duty vehicles.[12] It should be noted that because an approved haul route may not be approved as of the preparation of this analysis, assumptions were made about logical routes that would minimize haul truck traffic on local streets in favor of major arterials that can access regional-serving freeways.

On-Site Operational Noise Activities. The Project's potential to result in significant noise impacts from on-site operational noise sources was evaluated by identifying sources of on-site noise and considering the impact that they could produce given the nature of the source (i.e., loudness and whether noise would be produced during daytime or more-sensitive nighttime hours), distances

9 Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018.

10 A tripling of traffic volumes (i.e., 3.15x) is needed to elevate traffic noise levels by 5 dBA.

11 Caltrans, Technical Noise Supplement Table 3-3, 2013. Assumes 35 mph speed. While trucks traveling at higher speeds would have lower equivalency values (e.g., PCE is 15.1 at 40 mph), this analysis assumes a posted speed limit typical of major arterials (35 mph). While these equivalent vehicle factors do not consider source heights, Caltrans' factors are appropriate for use, as the local roads used by haul trucks would not involve a sound path where noise levels are intercepted by a barrier or natural terrain feature.

12 Caltrans, Technical Noise Supplement Table 3-3, 2013. Medium-duty trucks have a 7.1 PCE at 35 mph.

to nearby sensitive receptors, ambient noise levels near the Project Site, the presence of similar noise sources in the vicinity, and maximum noise levels permitted by the LAMC.

Off-Site Operational Noise Activities. The Project's off-site noise impact from Project-related traffic was evaluated based its potential to increase traffic volumes on local roadways that serve the Project site. Because it takes a doubling of traffic volumes on a roadway to generate the increased sound energy it takes to elevate ambient noise levels by 3 dBA, the analysis focused on whether auto trips generated by the Proposed Project would double traffic volumes on key roadways that access the Project Site.

Thresholds of Significance

Construction Noise Thresholds. Based on guidelines from the City of Los Angeles City Department of Planning, the on-site construction noise impact would be considered significant if:

- Construction activities lasting more than one day would exceed existing ambient exterior sound levels by 10 dBA (hourly L_{eq}) or more at a noise-sensitive use;

- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA (hourly L_{eq}) or more at a noise-sensitive use; or

- Construction activities of any duration would exceed the ambient noise level by 5 dBA (hourly L_{eq}) at a noise-sensitive use between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, before 8:00 A.M. or after 6:00 P.M. on Saturday, or at any time on Sunday.

Operational Noise Thresholds. In addition to applicable City standards and guidelines that would regulate or otherwise moderate the Project's operational noise impacts, the following criteria are adopted to assess the impact of the Project's operational noise sources:

- Project operations would cause ambient noise levels at off-site locations to increase by 3 dBA CNEL or more to or within "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories, as defined by the State's 2017 General Plan Guidelines.
- Project operations would cause any 5 dBA CNEL or greater noise increase.[13]

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13 As a 3 dBA increase represents a slightly noticeable change in noise level, this threshold considers any increase in ambient noise levels to or within a land use's "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories to be significant so long as the noise level increase can be considered barely perceptible. In instances where the noise level increase would not necessarily result in "normally unacceptable" or "clearly unacceptable" noise/land use compatibility, a 5 dBA increase is still considered to be significant. Increases less than 3 dBA are unlikely to result in noticeably louder ambient noise conditions and would therefore be considered less than significant.

Analysis of Project Impacts

a. 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?

Less Than Significant Impact.

Construction

On-Site Construction Activities

Construction would generate noise during the construction process that would span 24 months of demolition, site preparation, grading, utilities trenching, building construction, and application of architectural coatings, as shown in Table 4. During all construction phases, noise-generating activities could occur at the Project Site between 7:00 A.M. and 9:00 P.M. Monday through Friday, in accordance with LAMC Section 41.40(a). On Saturdays, construction would be permitted to occur between 8:00 A.M. and 6:00 P.M.

Table 6
Construction Schedule Assumptions

Phase	Duration	Notes
Demolition	Months 1-2	Removal of 9,240 square feet of building floor area and 101,692 square feet of asphalt/concrete parking lot hauled 20 miles to landfill in 14-cubic yard capacity trucks.
Site Preparation	Month 3	Grubbing and removal of trees, plants, landscaping, weeds
Grading	Months 4-6	Approximately 58,006 cubic yards of soil hauled 20 miles to landfill in 14-cubic yard capacity trucks. Includes drilling of piles and shoring of excavated site.
Trenching	Months 7-9	Trenching for utilities, including gas, water, electricity, and telecommunications.
Building Construction	Months 7-24	Footings and foundation work, framing, welding; installing mechanical, electrical, and plumbing. Floor assembly, cabinetry and carpentry, elevator installations, low voltage systems, trash management.
Architectural Coatings	Months 21-24	Application of interior and exterior coatings and sealants.
Source: DKA Planning, 2024.		

Noise levels would generally peak during the demolition and grading phases, when diesel-fueled heavy-duty equipment like excavators and dozers are used to move large amounts of debris and dirt, respectively. This equipment is mobile in nature and does not always operate at in a steady-state mode full load, but rather powers up and down depending on the duty cycle needed to conduct work. As such, equipment is occasionally idle during which time no noise is generated.

During other phases of construction (e.g., trenching, building construction, paving, architectural coatings), noise impacts are generally lesser because they are less reliant on using heavy equipment with internal combustion engines. Smaller equipment such as forklifts, generators, and various powered hand tools and pneumatic equipment would often be utilized. Off-site secondary noises would be generated by construction worker vehicles, vendor deliveries, and haul trucks. Figure 2 illustrates how noise would propagate from the construction site during the demolition and grading phase.

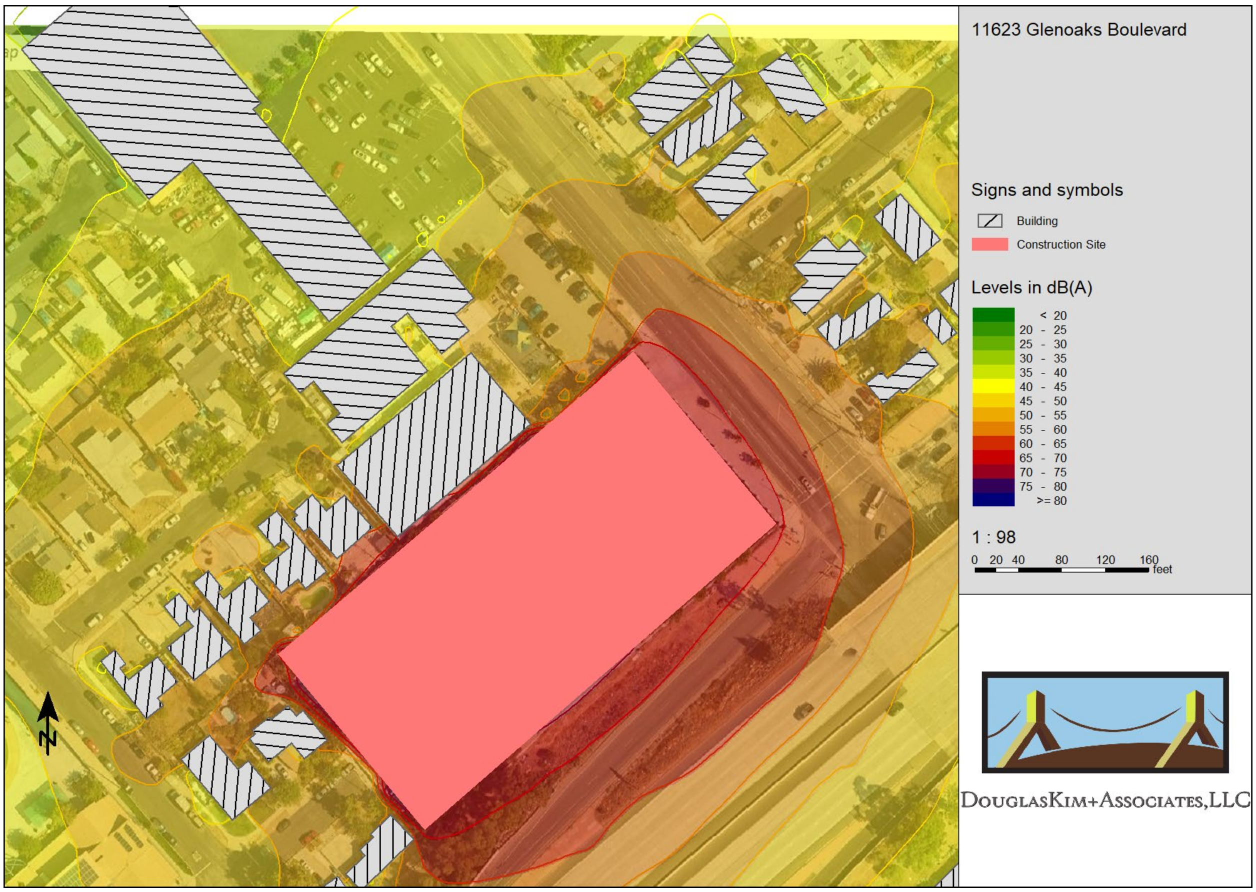

Figure 2
Construction Noise Sound Contours

Because the Project's construction phase would occur for more than three months, the applicable City threshold of significance for the Project's construction noise impacts is an increase of 5 dBA over existing ambient noise levels. As shown in Table 5, when considering ambient noise levels and compliance with LAMC Section 112.05, the use of multiple pieces of powered equipment simultaneously would increase ambient noise negligibly. This assumes the use of best practices techniques required by the City's Building and Safety code to meet these requirements, such as temporary sound barriers along the north and east property lines adjacent to neighboring residences that would generally reduce noise impacts at sensitive receptors by about 10 dBA L_{eq}.

It also assumes the use of quieter equipment or advanced mufflers.[14] These construction noise levels would not exceed the City's significance threshold of 5 dBA. Therefore, the Project's on-site construction noise impact would be less than significant.

Table 5
Construction Noise Impacts at Off-Site Sensitive Receptors

Receptor	Maximum Construction Noise Level (dBA L_{eq})	Existing Ambient Noise Level (dBA L_{eq})	New Ambient Noise Level (dBA L_{eq})	Increase (dBA L_{eq})	Potentially Significant?
1. Middle School	47.9	63.1	63.2	0.1	No
2. Residences - Desmond St.	43.7	53.9	54.3	0.4	No
3. Residences – Glenoaks Bl.	55.4	63.1	63.8	0.7	No
4. Residences – Eustace St.	52.7	73.3	73.3	0.0	No
5. Via Avanta Facility	51.5	68.2	68.3	0.1	No
Source: DKA Planning, 2024.					

Off-Site Construction Activities

The Project would also generate noise at off-site locations from haul trucks moving debris and soil from the Project Site during demolition and grading activities, respectively; vendor trips; and worker commute trips. These activities would generate up to an estimated 433 peak hourly PCE trips, as summarized in Table 6, during the building construction phase.[15] This would represent about 17.9 percent of traffic volumes on Glenoaks Boulevard, which carries about 2,421 vehicles at Vaughn Street in the morning peak hour of traffic.[16] Because workers and vendors will likely use more than one route to travel to and from the Project Site, this conservative assessment of traffic volumes likely overstates traffic volumes from construction activities on this roadway link.

Glenoaks Boulevard would serve as part of the haul route for any soil exported from the Project Site given its direct access to the Ronald Reagan Freeway directly south of the Project Site. Because the Project's construction-related trips would not cause a doubling in traffic volumes (i.e., 100 percent increase) on Glenoaks Boulevard, the Project's construction-related traffic would not

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14 Use of quieter equipment, such as electronic-powered equipment, is quieter than diesel-powered equipment. Similarly, hydraulically-powered equipment is quieter than pneumatic power. Overall, newer equipment is generally quieter due to design improvements (e.g., tighter manufacturing tolerances, better gear meshing, quieter cooling fans). Deploying newer equipment also avoids unnecessary noise from poor maintenance (e.g., worn gear teeth or bearings, slackness between loose parts, poor lubrication, imbalance in rotating parts, obstructing in airways, damaged silencers).

15 This is a conservative, worst-case scenario, as it assumes all workers travel to the worksite at the same time and that vendor and haul trips are made in the same early hour, using the same route as haul trucks to travel to and from the Project Site.

16 DKA Planning, 2024, based on City of Los Angeles database of traffic volumes on Glenoaks Boulevard at Vaughn Street, https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf, 2017 traffic counts adjusted by one percent growth factor to represent existing conditions.

increase existing noise levels by 3 dBA or more, let alone the 5 dBA threshold of significance for off-site construction noise activities. Therefore, the Project's noise impacts from construction-related traffic would be less than significant.

Table 6
Construction Vehicle Trips (Maximum Hourly)

Construction Phase	Worker Trips [a]	Vendor Trips	Haul Trips	Total Trips	Percent of Peak A.M. Hour Trips on Glenoaks Blvd.[e]
Demolition	13	0	66[b]	78	3.2
Site Preparation	8	0	<1	8	0.3
Grading	10	0	353[c]	363	15.0
Trenching	3	0	0	3	0.1
Building Construction	239	194[d]	0	433	17.9
Architectural Coating	48	0	0	48	2.0

[a] Assumes all worker trips occur in the peak hour of construction activity.
[b] The project would generate 1,059 haul trips over a 44-day period with seven-hour work days. Because haul trucks emit more noise than passenger vehicles, a 19.1 passenger car equivalency (PCE) was used to convert haul truck trips to a passenger car equivalent
[c] The project would generate 8,287 haul trips over a 64-day period with seven-hour work days. Assumes a 19.1 PCE.
[d] This phase would generate about 51.7 vendor truck trips daily over a seven-hour work day. Assumes a blend of medium- and heavy-duty vehicle types and a 13.1 PCE.
[e] Percent of existing traffic volumes on Glenoaks Boulevard at Vaughn St.

Source: DKA Planning, 2024

Operation

On-Site Operational Noise

During long-term operations, the Project would produce noise from on-site sources such as mechanical equipment associated with the structures themselves or from activity in outdoor spaces.

<u>Mechanical Equipment</u>

The Project would operate mechanical equipment on the roof 57 feet above grade that would generate incremental long-term noise impacts. This would include the use of typical HVAC equipment for cooling or heat pumps for cooling and heating for multi-family residences (e.g., 2.5-ton Carrier 24ABC630A003 Carrier 25HBC5), with each unit distributed across the roof as needed to serve each residence. Noise from heat pumps and air conditioners is a function of the model, airflow, and pressure flow generated by fans and compressors. Most modern heat pumps are relatively quiet, with sound ratings of up to 60 decibels, equivalent to normal human conversation,[17] while other HVAC units could have a sound power of up to 76 dBA. Equipment would be designed to not elevate ambient noise levels by 5 dBA in accordance with City regulations.

However, noise impacts from rooftop mechanical equipment on nearby sensitive receptors would be negligible for several reasons. First, there would be no line-of-sight from these rooftop units to the sensitive receptors, as the residences adjacent to the Project Site are one- to two-stories in height, approximately 35 to 45 feet lower than the roof of the Proposed Project. As blocking the line of sight to a noise source generally results in a 5 decibel reduction, each rooftop unit could generate about 50.3 dBA at ten feet of distance.[18] Second, the presence of the Project's roof edge creates an effective noise barrier that further reduces noise levels from rooftop units by 8 dBA or more.[19] A 2'6" parapet would further shield sensitive receptors near the Project Site. These design elements would be helpful in managing noise, as equipment often operates continuously throughout the day and occasionally during the day, evenings, and weekends. Compliance with LAMC Section 112.02 would further limit the impact of HVAC equipment on noise levels at adjacent properties. As a result, noise from rooftop units would negligibly elevate ambient noise levels, far less than the 5 dBA CNEL threshold of significance for operational impacts.

A pad-mounted oil transformer that lowers high voltage to standard household voltage used to power electronics, appliances and lighting would be located on the ground level in an unobstructed location facing Glenoaks Boulevard. This transformer would be housed in a steel cabinet and generally would not involve pumps, though fans may be needed on some units. Switchgear responsible for distributing power through the development could be located externally, though no mechanical processes that generate noise would be necessary. Booster (supply and exhaust) fans that ventilate the subterranean garage could be located on the above-ground garage levels of the partially-open garage.[20]

Otherwise, all other mechanical equipment would be fully enclosed within the structure. This would include mechanical, electrical, and plumbing rooms, a utility fan room, as well as elevator equipment (including hydraulic pump, switches, and controllers) in the subterranean basement's first level. All these activities would generally occur within the envelope of the development, operational noise would be shielded from off-site noise-sensitive receptors.

Outdoor Uses

While most operations would be conducted inside the development, outdoor activities could generate noise that could impact local sensitive receptors. This would include human

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[17] Clean British Columbia. Heat Pumps and Noise. https://vancouver.ca/files/cov/heat-pump-noise-guide.pdf

[18] Washington State Department of Transportation, Noise Walls and Barriers. https://wsdot.wa.gov/construction-planning/protecting-environment/noise-walls-barriers. Assumes the Carrier's rated sound power of 76 dB.

[19] Ibid.

[20] The International Mechanical Code (Section 404.1) and the American Society of Heating Refrigeration, and Air Conditioning (ASHRAE) Standard 62 require mechanical ventilation systems for enclosed parking garages that cycle clean air into the garage and ventilate harmful air pollutants.

conversation, trash collection, landscape maintenance, and commercial loading. These are discussed below:

- Human conversation. This could include human conversation, socializing, and passive recreation in outdoor spaces, including the third floor interior courtyard. This would be a shared use space for socializing or passive recreation (e.g., reading, dining), with intermittent use largely during day or evening hours. No powered speakers are proposed that would amplify either speech or music. This area would be fully surrounded by the development itself and any noise would be shielded from off-site receptors.

  The primary use of this space would be for human conversation, which would produce negligible noise impacts, based on the Lombard effect. This phenomenon recognizes that voice noise levels in face-to-face conversations generally increase proportionally to background ambient noise levels. Specifically, vocal intensity increases about 0.38 dB for every 1.0 dB increase in noise levels above 55 dB.[21] For example, the sound of a human voice at 60 dB would produce a noise level of 39 dB at ten feet, which would not elevate ambient noise levels at any of the analyzed sensitive receptors by more than 0.2 dBA L_{eq}. Moreover, noise levels from human speech would attenuate rapidly with greater distance, resulting in a 33 dB noise level at twenty feet, and 27 dB at 40 feet.[22]

- Trash collection. On-site trash and recyclable materials for the residents would be managed from the waste collection area on the first floor of the parking garage. Dumpsters would be moved to the street manually or with container handler trucks that use hydraulic-powered lifts that use beeping alerts during operation. Haul trucks would access solid waste from Glenoaks Boulevard, where solid waste activities would include use of trash compactors and hydraulics associated with the refuse trucks themselves. Noise levels of approximately 71 dBA L_{eq} and 66 dBA L_{eq} could be generated by collection trucks and trash compactors, respectively, at 50 feet of distance.[23] Because CNEL levels represent the energy average of sound levels during a 24-hour period, the modest sound power from a few minutes of trash collection activities during daytime hours would negligibly affect CNEL sound levels.
- Landscape maintenance. Noise from gas-powered leaf blowers, lawnmowers, and other landscape equipment can generated substantial bursts of noise during regular maintenance. For example, two gas powered leaf blowers with two-stroke engines and a hose vacuum can generate an average of 85.5 dBA L_{eq} and cause nuisance or potential noise impacts for nearby receptors.[24] The landscape plan focuses on a modest palette of accent trees and raised planters that will minimize the need for powered landscaping equipment, as some of this can be managed by hand. Because CNEL levels represent the energy average of sound levels

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21 Acoustical Society of America, Volume 134; Evidence that the Lombard effect is frequency-specific in humans, Stowe and Golob, July 2013.

22 Public Resources Code Section 21085 states that for residential projects, the effects of noise generated by project occupants and their guests on human beings is not a significant effect on the environment.

23 RK Engineering Group, Inc. Wal-Mart/Sam's Club reference noise level, 2003.

24 Erica Walker et al, Harvard School of Public Health; Characteristics of Lawn and Garden Equipment Sound; 2017. These equipment generated a range of 74.0-88.5 dBA Leq at 50 feet.

during a 24-hour period, the modest sound power from a few minutes of maintenance activities during daytime hours would negligibly affect CNEL sound levels.

- Commercial loading. On-site loading and unloading activities would be managed in the first level of the garage's basement, fully shielded from off-site sensitive receptors. As a result, there would be negligible noise impacts on off-site receptors and impacts would not increase CNEL noise levels at off-site locations. Further, LAMC Section 114.03 would regulate loading and unloading activities between 10:00 P.M. and 7:00 A.M.

As discussed above, the Project would not result in an exposure of persons to or a generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The Project would also not increase surrounding noise levels by more than 5 dBA CNEL, the minimum threshold of significance based on the noise/land use category of sensitive receptors near the Project Site. As a result, the Project's on-site operational noise impacts would be considered less than significant,

Off-Site Operational Noise

The majority of the Project's operational noise impacts would be off-site from vehicles traveling to and from the development. The Project could add up to 2,421 vehicle trips to the local roadway network on weekdays when the development could leased and operational in 2027.[25] The majority of vehicle-related impacts at the Project Site would come from 250 and 257 vehicles entering and exiting the development during the peak A.M. and P.M. hours, respectively.[26] This would represent a small addition to traffic volumes on local roadways. For example, it would represent 10.3 percent of the 2,421 vehicles using Glenoaks Boulevard at Vaughn Street in the A.M. peak hour.[27]

Because it takes a doubling of traffic volumes (i.e., 100 percent) to increase ambient noise levels by 3 dBA L_{eq}, the Project's traffic would neither increase ambient noise levels 3 dBA or more into "normally unacceptable" or "clearly unacceptable" noise/land use compatibility categories, nor increase ambient noise levels 5 dBA or more. Twenty-four hour CNEL impacts would similarly be minimal, far below criterion for significant operational noise impacts, which begin at 3 dBA. As such, this impact would be considered less than significant.

<u>Consistency with City General Plan Noise Element</u>

While the City's Noise Element focuses on a number of measures for Citywide implementation by municipal government, there are some objectives, policies, and programs that are applicable to development projects. Table 7 summarizes the Proposed Project's consistency with these.

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25 DKA Planning, 2024 based on ITE Trip Generation rates, 11th Edition.

26 DKA Planning, 2024. Hourly trip generation based on Institute of Transportation Engineer's hourly trip generation factors for Multifamily Housing (Mid-Rise) (land use code 221).

27 DKA Planning, 2024, based on City of Los Angeles database of traffic volumes on Glenoaks Boulevard at Vaughn Street, https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf, 2017 traffic counts adjusted by one percent growth factor to represent existing conditions.

Table 7
Project Consistency with City of Los Angeles General Plan Noise Element

Objective/Policy/Program	Project Consistency
Policy 2.2: Enforce and/or implement applicable city, state, and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.	**Consistent.** The Project would comply with City, state, and other applicable noise regulations to ensure that noise impacts are considered less than significant.
Objective 3 (Land Use Development): Reduce or eliminate noise impacts associated with proposed development of land and changes in land use.	**Consistent.** The project is being evaluated under CEQA and would result in less-than-significant impacts on noise.
Program 11. For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and city procedures.	**Consistent.** The Project would not have a significant noise impact on noise-sensitive uses and as such, would not require mitigation under CEQA.
Program 12. When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in the California Environmental Quality Act so as to achieve an interior noise level of a CNEL of 45 dB, or less, in any habitable room, as required by Los Angeles Municipal Code Section 91.	**Consistent.** The noise-sensitive project is being evaluated under CEQA and would before being entitled would comply with Building Code and Title 24 noise insulation requirements to achieve an interior noise level of 45 dB.
Source: DKA Planning, 2024.	

b. 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?

Less Than Significant Impact.

The Project Site is located about 5.7 miles northwest of the Hollywood Burbank Airport and 5.8 miles northeast of the Van Nuys Airport. Because the Proposed Project would not be located within the vicinity of a private airstrip or within two miles of a public airport, the Project would not expose local workers or residents in the area to excessive noise levels. This would be considered a less than significant impact.

Cumulative Impacts

Construction

On-Site Construction Noise

During construction of the proposed Project, there could be other construction activity in the area that contributes to cumulative noise impacts at sensitive receptors. Construction-related noise levels from any related project would be intermittent and temporary. As with the Project, any related projects would comply with the LAMC's restrictions, including restrictions on construction hours and noise from powered equipment. Noise associated with cumulative construction activities would be reduced to the degree reasonably and technically feasible through proposed mitigation measures for each individual related project and compliance with the noise ordinance.

Noise from construction of development projects is localized and can affect noise-sensitive uses within 500 feet, based on the City's screening criteria. As such, noise from two construction sites within 1,000 feet of each other can contribute to cumulative noise impacts for receptors located between.

There is one related project identified by the City of Los Angeles within 1,000 feet of the Proposed Project (Figure 3):[28]

1. 13100 Paxton Street, 900 square-foot Starbucks drive-through; 550 feet southeast of the Project Site.

As illustrated in Table 8, the concurrent construction of the Proposed Project and this drive-through coffee shop to the southeast would negligibly elevate noise levels at the four analyzed sensitive receptors near the Project Site. As such, the Project would not substantially contribute to significant cumulative construction noise impacts.

[28] City of Los Angeles, Related Projects Summa55.6ry from Case Logging and Tracking System, July 2024.

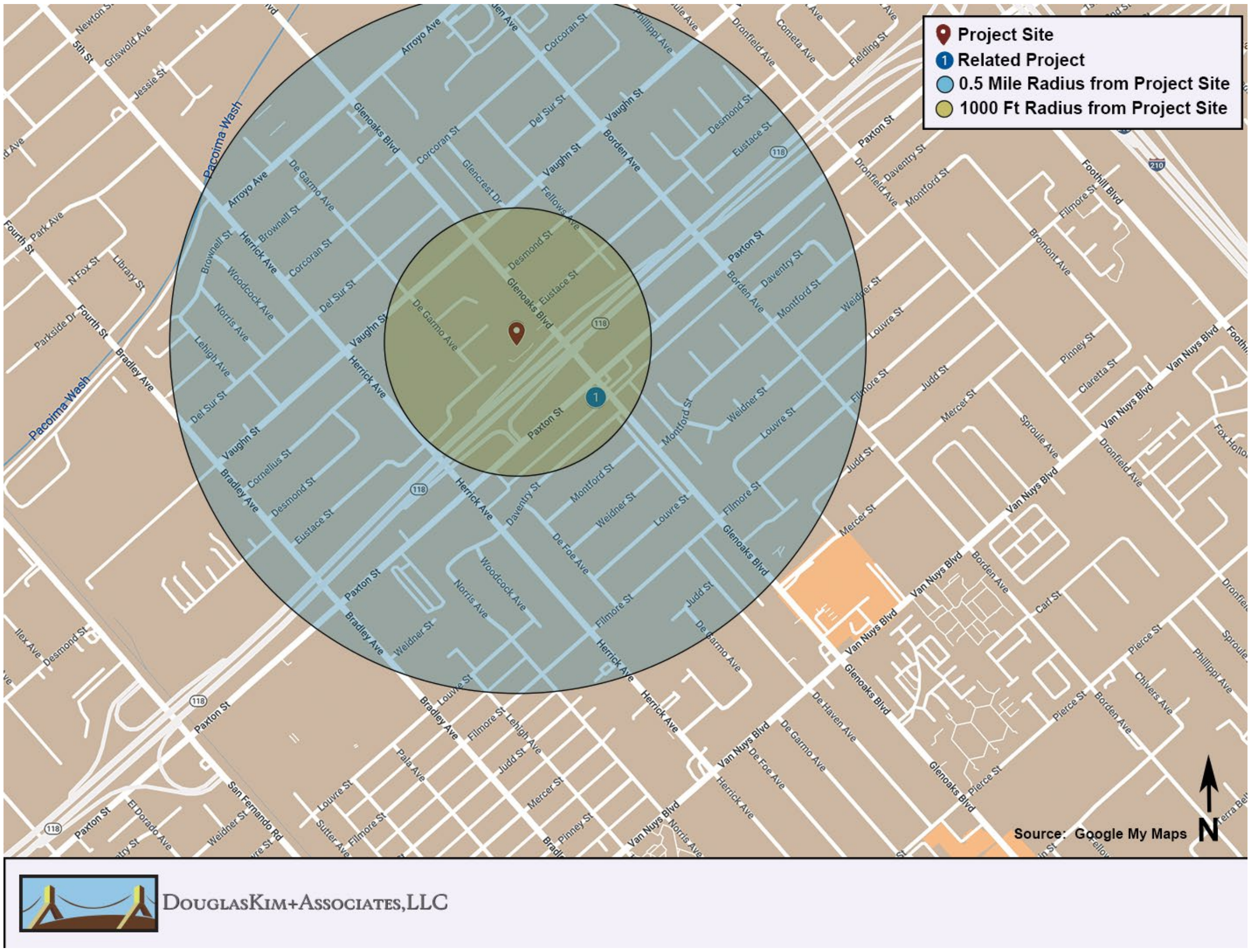

Figure 3
Location of Related Project

Table 8
Cumulative Construction Noise Impacts at Off-Site Sensitive Receptors

Receptor	Maximum Construction Noise Level (dBA L_{eq})	Existing Ambient Noise Level (dBA L_{eq})	New Ambient Noise Level (dBA L_{eq})	Increase (dBA L_{eq})	Potentially Significant?
1. Middle School	47.9	63.1	63.2	0.1	No
2. Residences – Desmond St.	43.7	53.9	54.3	0.4	No
3. Residences – Glenoaks Bl.	55.4	63.1	63.8	0.7	No
4. Residences – Eustace St.	52.7	73.3	73.3	0.0	No
5. Via Avanta Facility	51.8	68.2	68.3	0.1	No
Source: DKA Planning, 2024.					

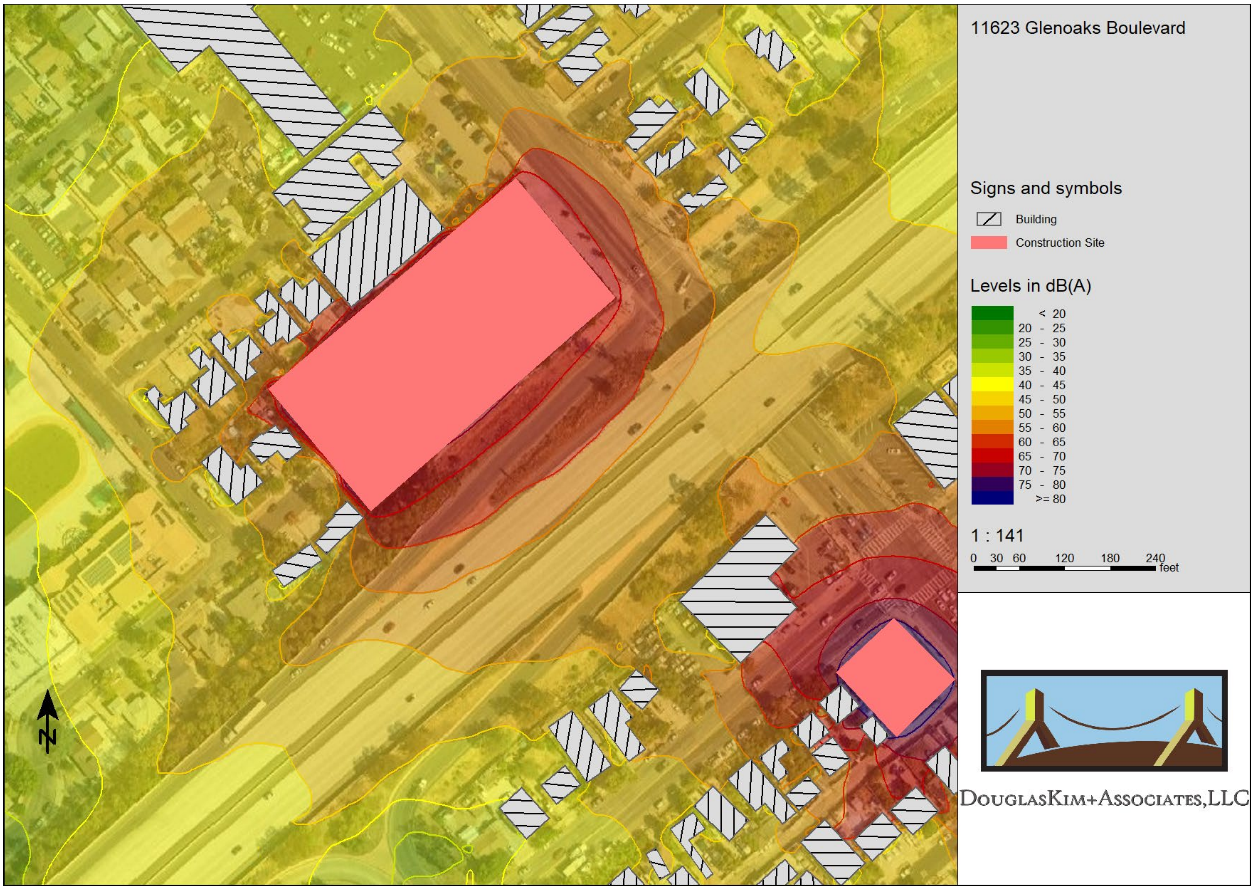

Figure 4
Construction Noise Contours from Cumulative Development

Off-Site Construction Noise

Other concurrent construction activities from related projects can contribute to cumulative off-site impacts if haul trucks, vendor trucks, or worker trips for any related project(s) were to utilize the same roadways. Distributing trips to and from each related project construction site substantially reduces the potential that cumulative development could more than double traffic volumes on existing streets, which would be necessary to increase ambient noise levels by 3 dBA. The Proposed Project would contribute an estimated 433 peak hourly PCE trips during the building construction phase.[29] This would represent about 17.9 percent of traffic volumes on Glenoaks Boulevard, which carries about 2,421 vehicles at Vaughn Street in the morning peak hour of traffic.[30] Any related projects would have to add 1,988 peak hour vehicle trips to double volumes on Glenoaks Boulevard.

29 This is a conservative, worst-case scenario, as it assumes all workers travel to the worksite at the same time and that vendor and haul trips are made in the same early hour, using the same route as haul trucks to travel to and from the Project Site.

30 DKA Planning, 2024, based on City of Los Angeles database of traffic volumes on Glenoaks Boulevard at Vaughn Street, https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf, 2017 traffic counts adjusted by one percent growth factor to represent existing conditions.

The one related project within 1,000 feet of the Project Site would not be capable of generating this much truck traffic. Specifically, the proposed drive-through coffee shop at 13100 Paxton Street would involve minor renovation of an existing free-standing building and would not involve major grading. As such, it would generate a modest amount of construction traffic.

As such, cumulative noise due to construction truck traffic from the Project and related projects do not have the potential to double traffic volumes on any roadway necessary to elevate traffic noise levels by 3 dBA, let alone the 5 dBA threshold of significance for traffic impacts. As such, cumulative noise impacts from off-site construction would be less than significant.

Operation

The Project Site and Pacoima neighborhood has been developed with residential and commercial land uses that have previously generated, and will continue to generate, noise from a number of operational noise sources, including mechanical equipment (e.g., HVAC systems), outdoor activity areas, and vehicle travel. The three related projects in the vicinity of the Project Site are residential or mixed-use in nature and would also generate stationary-source and mobile-source noise due to ongoing day-to-day operations. These types of uses generally do not involve use of noisy heavy-duty equipment such as compressors, diesel-fueled equipment, or other sources typically associated with excessive noise generation.

On-Site Stationary Noise Sources

Noise from on-site mechanical equipment (e.g., HVAC units) and any other human activities from related projects would not be typically associated with excessive noise generation that could result in increases of 5 dBA or more in ambient noise levels at sensitive receptors when combined with operational noise from the Proposed Project. The presence of intervening multi-story buildings along major arterials and the residential neighborhoods that flank it will generally shield noise impacts from one or more projects that may generate operational noise. Therefore, cumulative stationary source noise impacts associated with operation of the Project and related projects would be less than significant.

Off-Site Mobile Noise Sources

The Project would add up 250 and 257 vehicles onto local roadways during the peak A.M. and P.M. hours, respectively.[31] This would represent a small addition to traffic volumes on local roadways. For example, it would represent 10.3 percent of the 2,421 vehicles using Glenoaks Boulevard at Vaughn Street in the A.M. peak hour, an intersection that would be used for the haul route as trucks travel to and from the Sunshine Canyon Landfill.[32]. Related projects would have

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31 DKA Planning, 2024. Hourly trip generation based on Institute of Transportation Engineer’s hourly trip generation factors for Multifamily Housing (Mid-Rise) (land use code 221).

32 DKA Planning, 2024, based on City of Los Angeles database of traffic volumes on Glenoaks Boulevard at Vaughn Street, https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf, 2017 traffic counts adjusted by one percent growth factor to represent existing conditions.

to generate 2,428 additional vehicle trips onto Vermont Avenue in the peak A.M. hour to elevate noise by 3 dBA. Instead, the one nearby related project would generate about 67 and 68 A.M. and P.M. peak hour trips, respectively.[33]

When combined with the Proposed Project, these two developments would 317 and 325 A.M. and P.M. peak hour trips, a 13.1 percent increase in volume to traffic on Glenoaks Boulevard at Vaughn Street in the A.M. peak hour, assuming all vehicle trips use this roadway segment. As this would not increase traffic volumes by 100 percent, cumulative noise impacts due to off-site traffic would not increase ambient noise levels by 3 dBA, let alone by the 5 dBA threshold of significance. Additionally, the Project would not result in an exposure of persons to or a generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Therefore, cumulative noise impacts due to off-site traffic would not increase ambient noise levels by 3 dBA to or within their respective “Normally Unacceptable” or “Clearly Unacceptable” noise categories, or by 5 dBA or greater overall. Additionally, the Project would not result in an exposure of persons to or a generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

[33] City of Los Angeles, Case Logging and Tracking System; July 18, 2024

TECHNICAL APPENDIX

DouglasKim+Associates, LLC

AMBIENT NOISE MEASUREMENTS

DOUGLASKIM+ASSOCIATES,LLC

Figure 1
Noise Measurement Locations

Session Report

8/4/2024

Information Panel

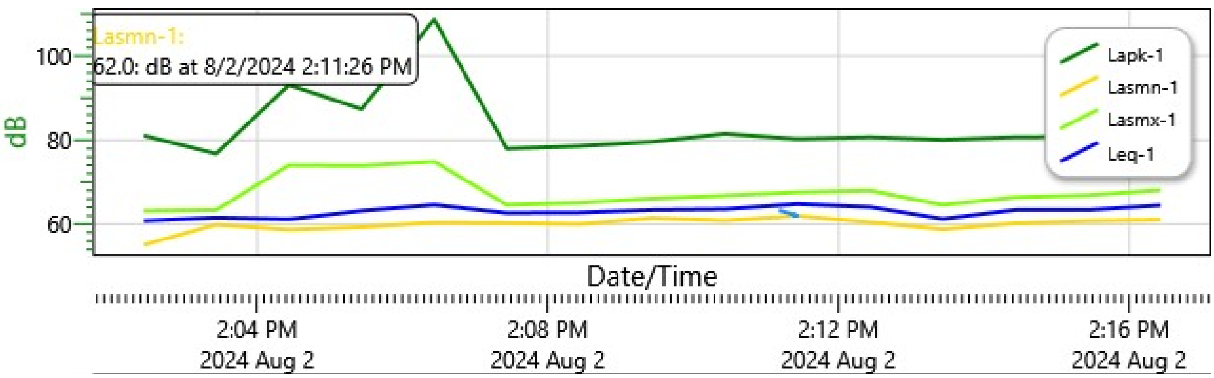
Name	13215 Eustace Street
Comments	
Start Time	8/2/2024 2:01:26 PM
Stop Time	8/2/2024 2:16:44 PM
Run Time	00:15:18
Serial Number	SE40214325
Device Name	SE40214325
Model Type	Sound Examiner
Device Firmware Rev	R.11F
Company Name	
Description	
Location	
User Name	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	63.1 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF

Logged Data Chart

13215 Eustace Street: Logged Data Chart



Logged Data Table

Date/Time	Lapk-1	Lasmn-1	Lasmx-1	Leq-1
8/2/2024 2:02:26 PM	81.1	55.1	63.2	60.8
2:03:26 PM	76.8	59.9	63.4	61.6
2:04:26 PM	93.1	58.7	74	61.2
2:05:26 PM	87.4	59.3	73.9	63.2
2:06:26 PM	108.7	60.4	74.9	64.6
2:07:26 PM	78	60.3	64.6	62.7
2:08:26 PM	78.6	60	65.1	62.8
2:09:26 PM	79.6	61.5	66.1	63.4
2:10:26 PM	81.5	60.9	66.8	63.6
2:11:26 PM	80.3	62	67.6	64.8
2:12:26 PM	80.7	60.5	68	64.1
2:13:26 PM	80.1	58.8	64.6	61.3
2:14:26 PM	80.7	60.2	66.4	63.4
2:15:26 PM	80.8	60.8	66.9	63.4
2:16:26 PM	87.4	61.1	68.1	64.5

Session Report

8/4/2024

Information Panel

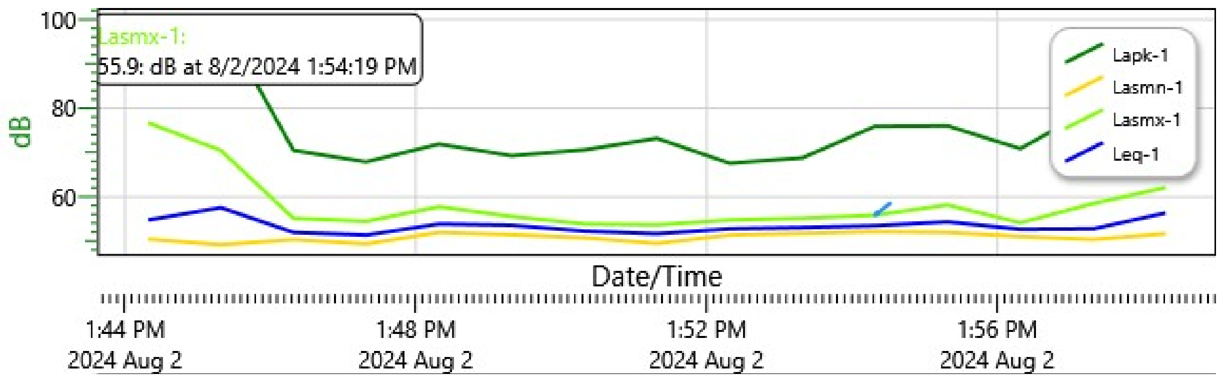
Name	13222 Desmond Street
Comments	
Start Time	8/2/2024 1:43:19 PM
Stop Time	8/2/2024 1:58:33 PM
Run Time	00:15:14
Serial Number	SE40214325
Device Name	SE40214325
Model Type	Sound Examiner
Device Firmware Rev	R.11F
Company Name	
Description	
Location	
User Name	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	53.9 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF

Logged Data Chart

13222 Desmond Street: Logged Data Chart



Logged Data Table

Date/Time	Lapk-1	Lasmn-1	Lasmx-1	Leq-1
8/2/2024 1:44:19 PM	91.5	50.5	76.7	54.8
1:45:19 PM	100	49.2	70.5	57.6
1:46:19 PM	70.5	50.4	55.2	52
1:47:19 PM	67.9	49.4	54.5	51.4
1:48:19 PM	71.9	52	57.8	53.9
1:49:19 PM	69.3	51.5	55.6	53.6
1:50:19 PM	70.6	50.8	53.9	52.3
1:51:19 PM	73.2	49.5	53.7	51.7
1:52:19 PM	67.6	51.4	54.8	52.8
1:53:19 PM	68.8	51.8	55.2	53.1
1:54:19 PM	75.9	52.2	55.9	53.5
1:55:19 PM	76	52	58.2	54.4
1:56:19 PM	70.9	51.1	54.2	52.7
1:57:19 PM	80	50.4	58.5	52.8
1:58:19 PM	85.5	51.7	62.1	56.4

Session Report

8/4/2024

Information Panel

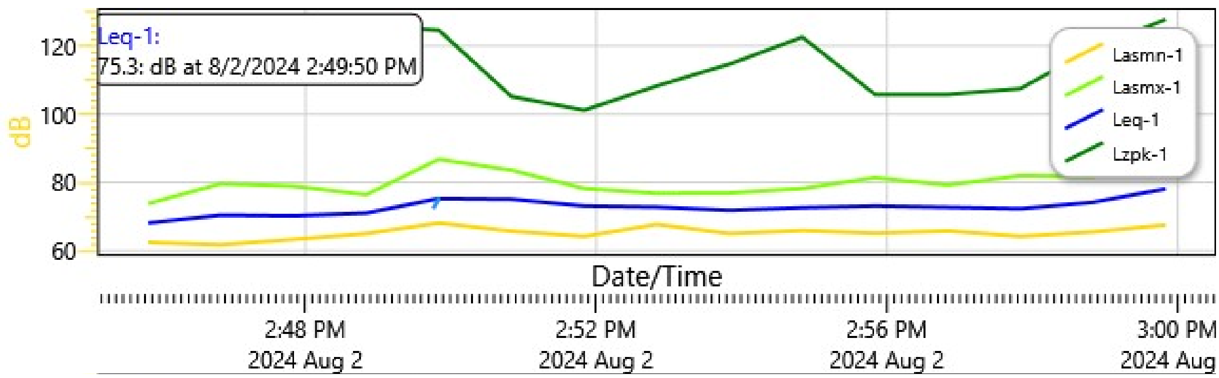
Name	11624 Glenoaks Boulevard (corner of Eustace Street)
Comments	
Start Time	8/2/2024 2:44:50 PM
Stop Time	8/2/2024 3:00:14 PM
Run Time	00:15:24
Serial Number	SE40213991
Device Name	SE40213991
Model Type	Sound Examiner
Device Firmware Rev	R.11F
Company Name	
Description	
Location	
User Name	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	73.3 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF

Logged Data Chart

11624 Glenoaks Boulevard (corner of Eustace Street): Logged Data Chart



Logged Data Table

Date/Time	Lzpk-1	Lasmn-1	Lasmx-1	Leq-1
8/2/2024 2:45:50 PM	124.2	62.4	73.8	68.1
2:46:50 PM	118.2	61.7	79.6	70.4
2:47:50 PM	122.9	63.3	78.9	70.2
2:48:50 PM	126	65	76.4	71
2:49:50 PM	124.6	68.1	86.8	75.3
2:50:50 PM	105.2	65.7	83.6	75.1
2:51:50 PM	101.2	64.2	78.2	73.1
2:52:50 PM	108.3	67.7	76.8	72.8
2:53:50 PM	114.7	65	76.9	71.8
2:54:50 PM	122.6	65.9	78.2	72.6
2:55:50 PM	105.8	65.1	81.4	73.1
2:56:50 PM	105.8	65.8	79.2	72.7
2:57:50 PM	107.5	64.2	82	72.3
2:58:50 PM	119.2	65.5	81.7	74.2
2:59:50 PM	127.8	67.5	90	78.1

Session Report

8/4/2024

Information Panel

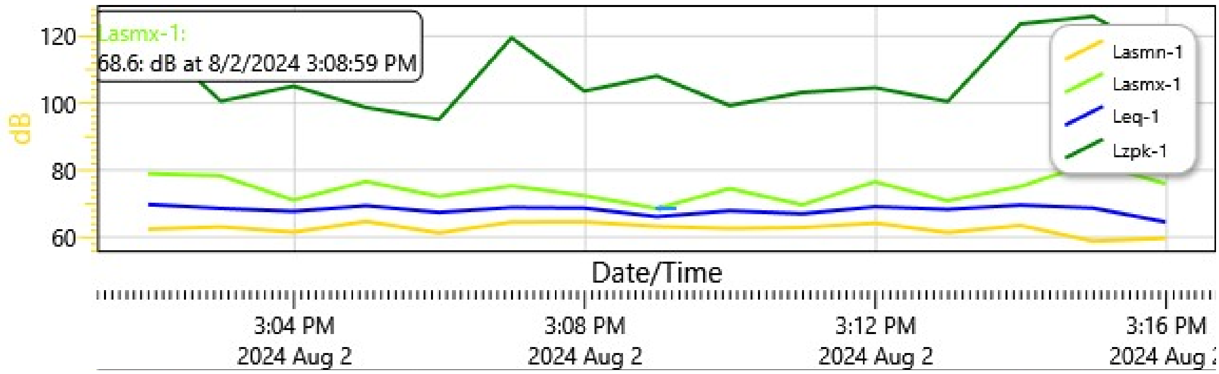
Name	Via Avanta
Comments	
Start Time	8/2/2024 3:00:59 PM
Stop Time	8/2/2024 3:16:05 PM
Run Time	00:15:06
Serial Number	SE40213991
Device Name	SE40213991
Model Type	Sound Examiner
Device Firmware Rev	R.11F
Company Name	
Description	
Location	
User Name	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	68.2 dB			
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW	Bandwidth	1	OFF

Logged Data Chart

Via Avanta: Logged Data Chart



Logged Data Table

Date/Time	Lzpk-1	Lasmn-1	Lasmx-1	Leq-1
8/2/2024 3:01:59 PM	120.7	62.4	79	69.8
3:02:59 PM	100.6	63.1	78.3	68.6
3:03:59 PM	105.1	61.5	71.1	67.7
3:04:59 PM	98.7	64.7	76.6	69.4
3:05:59 PM	95.1	61.3	72.2	67.4
3:06:59 PM	119.5	64.5	75.3	68.9
3:07:59 PM	103.6	64.6	72.4	68.7
3:08:59 PM	108.1	63.2	68.6	66.1
3:09:59 PM	99.3	62.6	74.5	67.9
3:10:59 PM	103.2	62.9	69.7	67
3:11:59 PM	104.6	64.2	76.5	69.1
3:12:59 PM	100.5	61.4	70.9	68.3
3:13:59 PM	123.6	63.5	75.1	69.6
3:14:59 PM	125.9	58.8	82.3	68.7
3:15:59 PM	113.9	59.7	75.9	64.5

DouglasKim+Associates, LLC

CONSTRUCTION NOISE CALCULATIONS

Noise emissions of industry sources

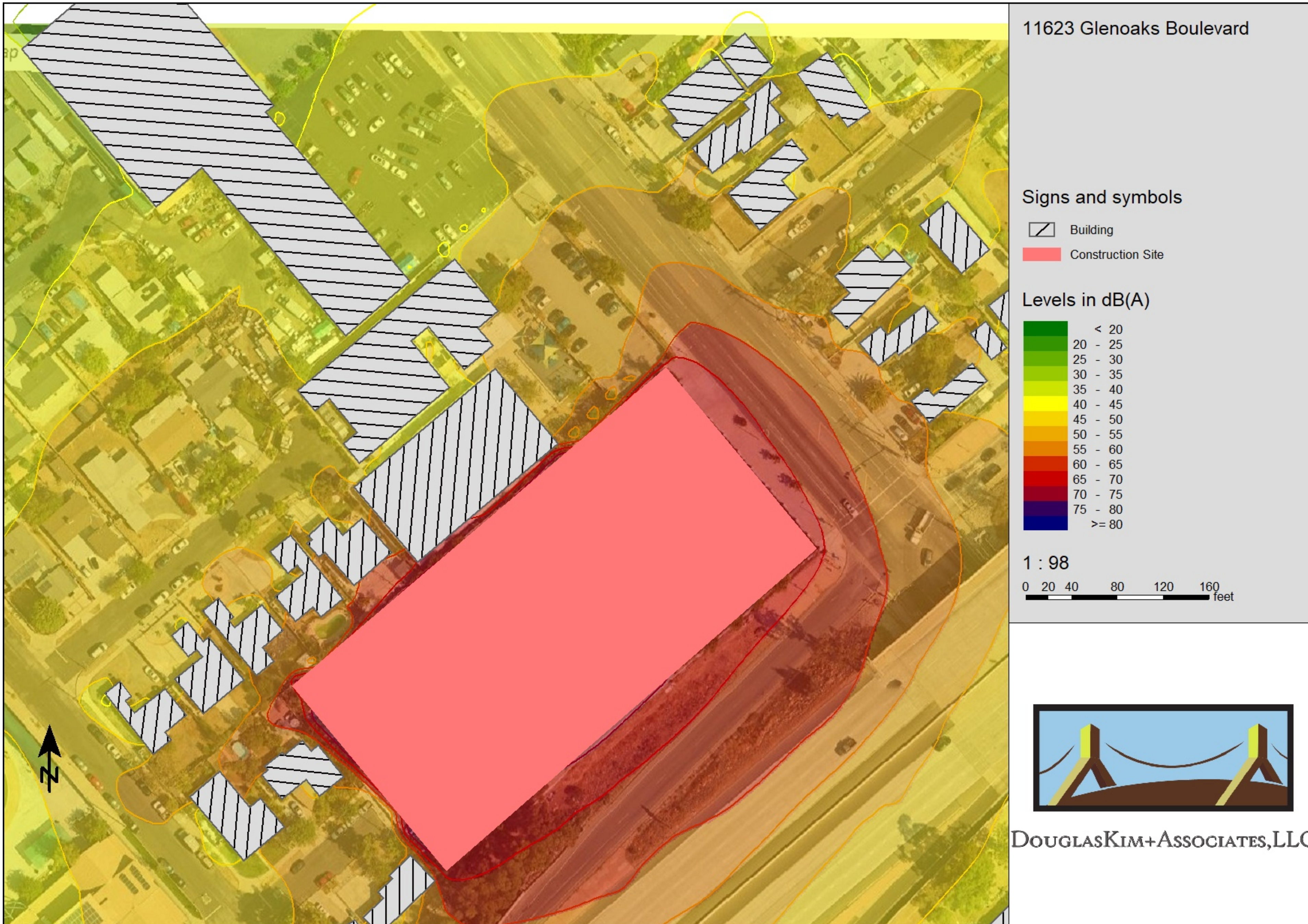
Source name	Size	Reference	Level			Corrections		
	m/m²		Day dB(A)	Evening dB(A)	Night dB(A)	Cwall dB	CI dB	CT dB
Construction Site	8271 m²	Lw/unit	109.7	-	-	-	-	-

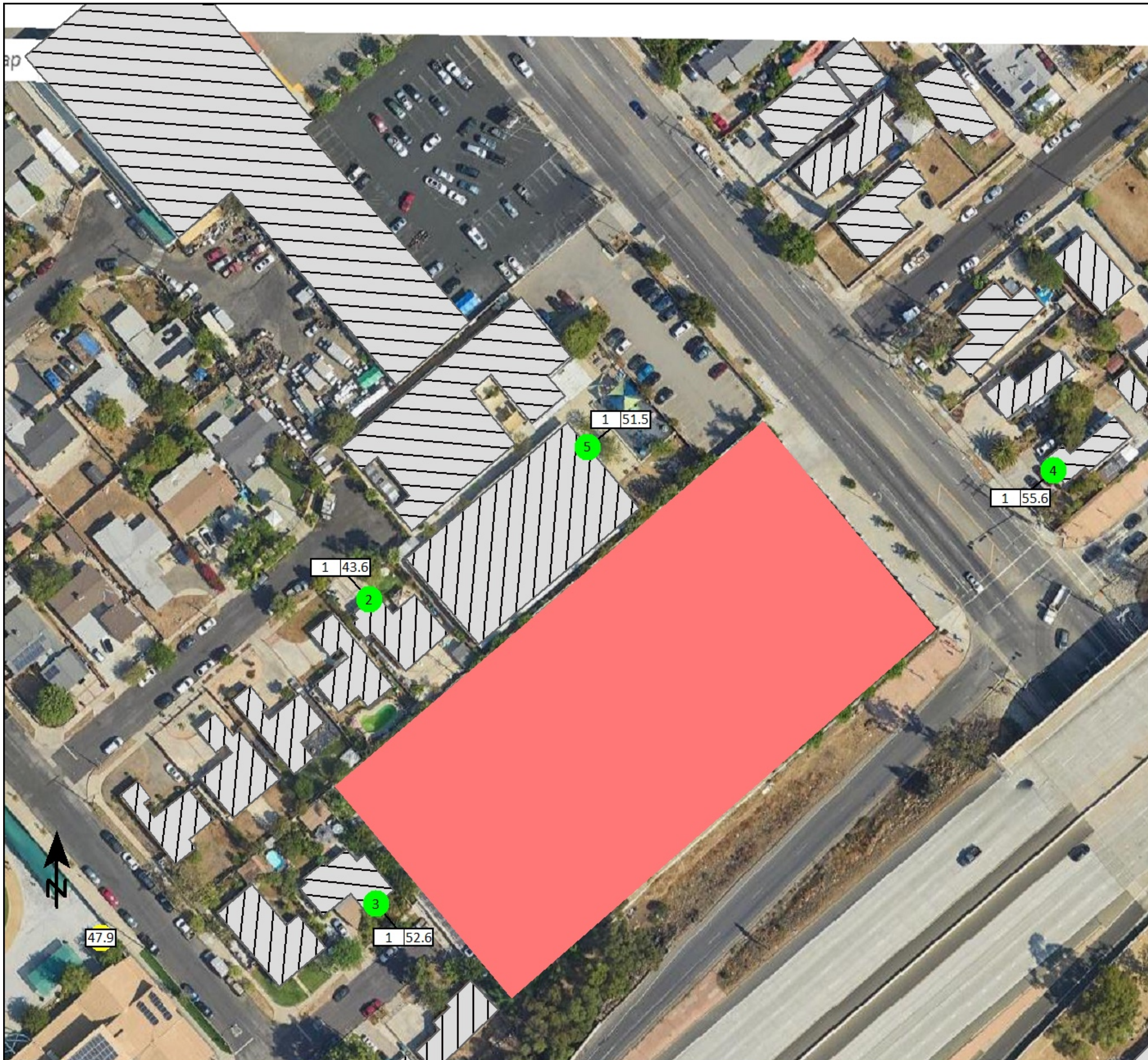
Receiver list

No.	Receiver name	Coordinates X	Y	Building side	Floor	Height abv.grd	Limit Day	Night	Lden	Level Day	Night	Lden	Conflict Day	Night	Lden
		in meter				m		dB(A)			dB(A)			dB	
1	Middle School	11369164	3794108.5	-	GF	335.43	-	-	-	47.9	0.0	44.9	-	-	-
2	Residences - Desmont S	11369226	3794187.0	North w	GF	336.92	-	-	-	43.6	0.0	40.6	-	-	-
3	Residences - Eustace St	11369228	3794116.4	South e	GF	335.73	-	-	-	52.6	0.0	49.6	-	-	-
4	Residences - Glenaoks E	11369385	3794216.9	South w	GF	337.40	-	-	-	55.6	0.0	52.6	-	-	-
5	Via Avanta	11369277	3794222.3	North ea	GF	337.06	-	-	-	51.5	0.0	48.5	-	-	-

Contribution levels of the receivers

Source name		Traffic lane	Day	Level Night dB(A)	Lden
Middle School	GF		47.9	0.0	44.9
Construction Site		-	47.9	-	44.9
Residences - Desmont St.	GF		43.6	0.0	40.6
Construction Site		-	43.6	-	40.6
Residences - Eustace St.	GF		52.6	0.0	49.6
Construction Site		-	52.6	-	49.6
Residences - Glenaoks Bl.	GF		55.6	0.0	52.6
Construction Site		-	55.6	-	52.6
Via Avanta	GF		51.5	0.0	48.5
Construction Site		-	51.5	-	48.5


N
11623 Glenoaks Boulevard
Signs and symbols
Building
Construction Site
Levels in dB(A)
< 20
20 - 25
25 - 30
30 - 35
35 - 40
40 - 45
45 - 50
50 - 55
55 - 60
60 - 65
65 - 70
70 - 75
75 - 80
>= 80
1 : 98
0 20 40 80 120 160
feet
DouglasKim+Associates,LLC



11623 Glenoaks Boulevard

Signs and symbols

Building

Analyzed Sensitive Receptor (Outdoor)

Analyzed Sensitive Receptor

Construction Site

1 : 98

0 20 40 80 120 160 feet

DouglasKim+Associates,LLC

Construction Noise Impacts

Reference	15.24	meter
Sound Pressure Level (Lp)	75.0	dBA
Sound Power Level (Lw)	109.7	dB

Receptor	Existing Leq	Noise	New Leq	Difference Leq	Significant?
Middle School	63.1	47.9	63.2	0.1	**No**
Residences - Desmond St.	53.9	43.7	54.3	0.4	**No**
Residences - Glenoaks Bl.	63.1	55.4	63.8	0.7	**No**
Residences - Eustace St.	73.3	52.7	73.3	0.0	**No**
Via Avanta Facility	68.2	51.5	68.3	0.1	**No**

OFF-SITE CONSTRUCTION-RELATED TRAVEL VOLUMES

Construction Phase	Worker Trips	Vendor Trips	Haul Trips	Total	% of Traffic Volumes
Demolition	12.5	0	65.7	78	3.2%
Site Preparation	7.5	0		8	0.3%
Grading	2.5	0	353	356	14.7%
Trenching	10	0		10	0.4%
Building Construction	239	193.5		433	17.9%
Architectural Coatings	47.9	0		47.9	2.0%

Haul trips represent heavy-duty truck trips with a 19.1 Passenger Car Equivalent applied; Vendor trips are an even split of medium- and heav

2,421 Traffic Volumes on Glenoaks Boulevard at Vaughn Street in the peak A.M. hour

DouglasKim+Associates,LLC

TRAFFIC NOISE CALCULATIONS

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North/South Glenoaks Blvd

East/West Vaughn St

Day: Thursday Date: March 16, 2017 Weather: SUNNY

Hours: 7-10 & 3-6 Chekrs: NDS

School Day: YES District: I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	252	265	27	20
BIKES	25	33	3	6
BUSES	15	20	0	1

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	264	7.30	398	7.30	94	7.30	82	7.30
PM PK 15 MIN	280	17.00	321	15.30	83	15.30	79	17.15
AM PK HOUR	962	7.30	1417	7.15	350	7.00	314	7.00
PM PK HOUR	1055	17.00	1184	17.00	288	17.00	255	17.00

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	90	759	31	880
8-9	49	755	28	832
9-10	28	673	19	720
15-16	57	815	55	927
16-17	45	862	51	958
17-18	71	926	58	1055
TOTAL	340	4790	242	5372

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	35	1308	35	1378
8-9	25	943	22	990
9-10	12	750	17	779
15-16	35	1065	35	1135
16-17	33	1035	22	1090
17-18	49	1088	47	1184
TOTAL	189	6189	178	6556

Hours	TOTAL N-S	XING S/L Ped	XING S/L Sch	XING N/L Ped	XING N/L Sch
7-8	2258	23	37	23	12
8-9	1822	14	6	13	0
9-10	1499	6	0	2	0
15-16	2062	23	9	14	3
16-17	2048	6	0	8	2
17-18	2239	27	4	4	2
TOTAL	11928	99	56	64	19

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	33	93	224	350
8-9	19	65	91	175
9-10	13	21	64	98
15-16	25	66	124	215
16-17	34	86	133	253
17-18	94	73	121	288
TOTAL	218	404	757	1379

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
7-8	155	125	34	314
8-9	121	50	37	208
9-10	85	14	20	119
15-16	147	48	38	233
16-17	130	43	39	212
17-18	166	48	41	255
TOTAL	804	328	209	1341

Hours	TOTAL E-W	XING W/L Ped	XING W/L Sch	XING E/L Ped	XING E/L Sch
7-8	664	15	6	25	9
8-9	383	8	3	16	1
9-10	217	3	0	10	2
15-16	448	23	8	19	0
16-17	465	12	7	5	0
17-18	543	23	4	7	0
TOTAL	2720	84	28	82	12

TRAFFIC VOLUME ADJUSTMENTS

DouglasKim+Associates,LLC

North/South	Glenoaks Boulevard
East/West	Vaughn St.
Year	2017
Hour	7:00-8:00 A.M.
Source	https://navigatela.lacity.org/dot/traffic_data/manual_counts/Glenoaks.Vaughn.170316-NDSMAN.pdf

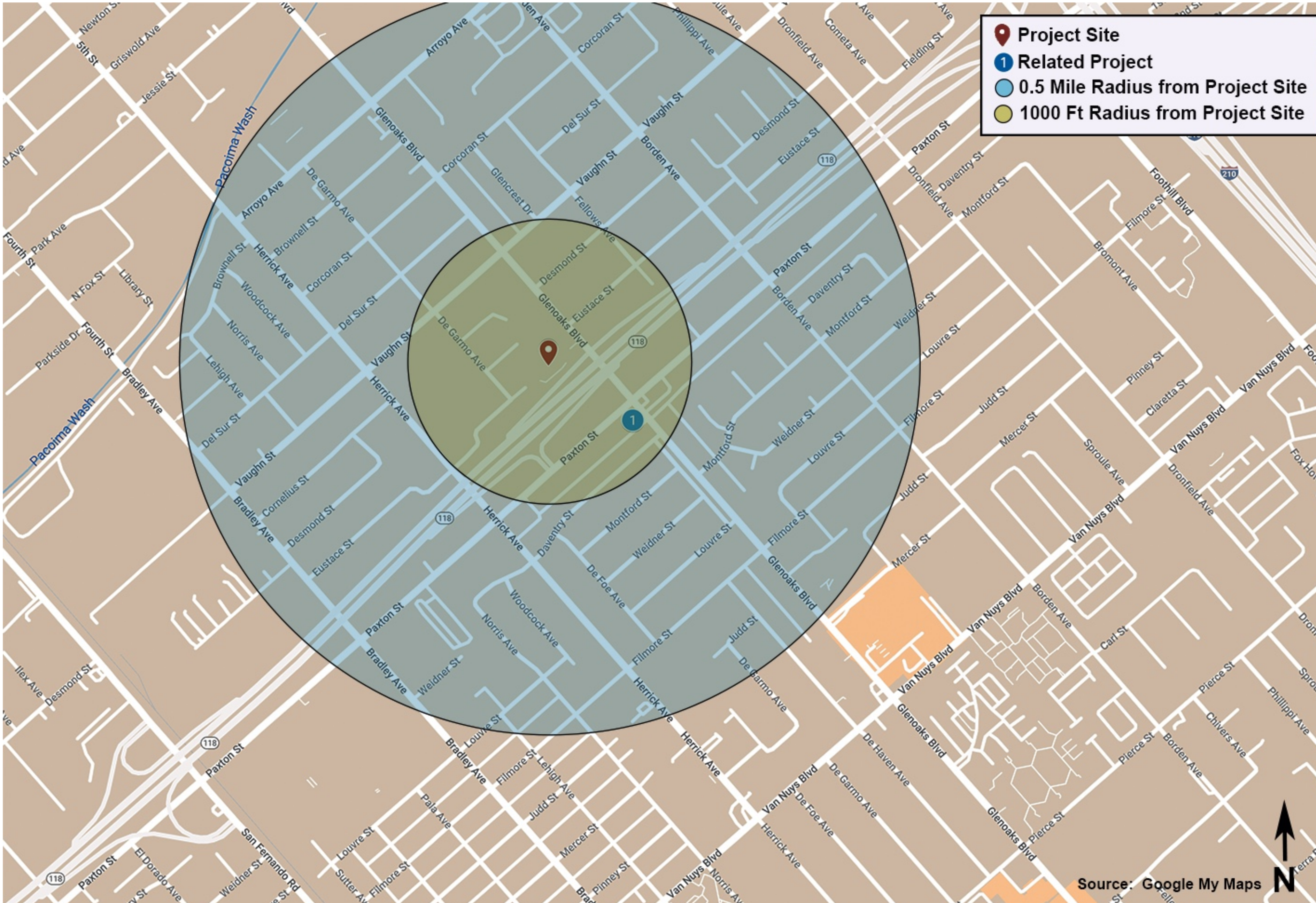
	NB Approach	SB Approach	EB Approach	WB Approach		
LT						
TH						
RT						
Total	880	1378	350	314		1.07%

2017	880	1,378	3,277	314	2,258
2018	889	1,392	3,310	317	2,281
2019	898	1,406	3,343	320	2,303
2020	907	1,420	3,376	324	2,326
2021	916	1,434	3,410	327	2,350
2022	925	1,448	3,444	330	2,373
2023	934	1,463	3,479	333	2,397
2024	**943**	**1,477**	**3,513**	**337**	**2,421**

	NB Approach	SB Approach	EB Approach	WB Approach		
Auto	763	1,195	2,841	272	6,048,810	82.5%
MDT	119	186	441	42	940,092	12.8%
HDT	3	5	12	1	25,348	0.3%
Buses	1	2	4	0	9,386	0.1%
MCY	21	33	79	8	167,287	2.3%
Aux	18	28	67	6	142,856	1.9%
Total	925	1,448	3,444	330	7,333,779	100.0%

DouglasKim+Associates, LLC

CUMULATIVE PROJECTS



DouglasKim+Associates,LLC

DouglasKim+Associates, LLC

RELATED PROJECT TRIP GENERATION ESTIMATES

CLATS

Case Logging and Tracking System

Welcome **segal**! | Log Out | Profile | Admin

RELATED PROJECTS

Centroid Info:

PROJ ID: 57636
Address: 11623 N GLENOAKS BL
PACOIMA, CA 91331
Lat/Long: 34.2803, -118.42

Buffer Radius: 1500 feet

Search

Column

Include NULL "Trip info":
Include NULL "FirstStudySubmittalDate" (latest)
Include "Inactive" projects:
Include "Do not show in Related Project":
Net_AM_Trips - Select -
Net_PM_Trips - Select -
Net_Daily_Trips - Select -

Record Count: 1 | Record Per Page: All Records

Results generated since: (7/18/2024 1:59:44 PM)

Proj ID	Office	Area	CD	Year	Project Title	Project Desc	Address	First Study Submittal Date	Distance (feet)	Trip Info
44943	SF Valley	SFV	7	2016	starbucks drive thru only		13100 Paxton Street	08/22/2017	787.4	(see below)

Land_Use	Unit_ID	size	Net_AM_Trips	Net_PM_Trips	Net_Daily_Trips	NetAMIn	NetAMOut	NetPMIn	NetPMOut
Retail	S.F. Gross Area	900	135	33	796	67	68	17	16
			135	**33**	**796**		**67**	**68**	**17**

DOUGLASKIM+ASSOCIATES,LLC

CUMULATIVE CONSTRUCTION NOISE IMPACTS

Noise emissions of industry sources

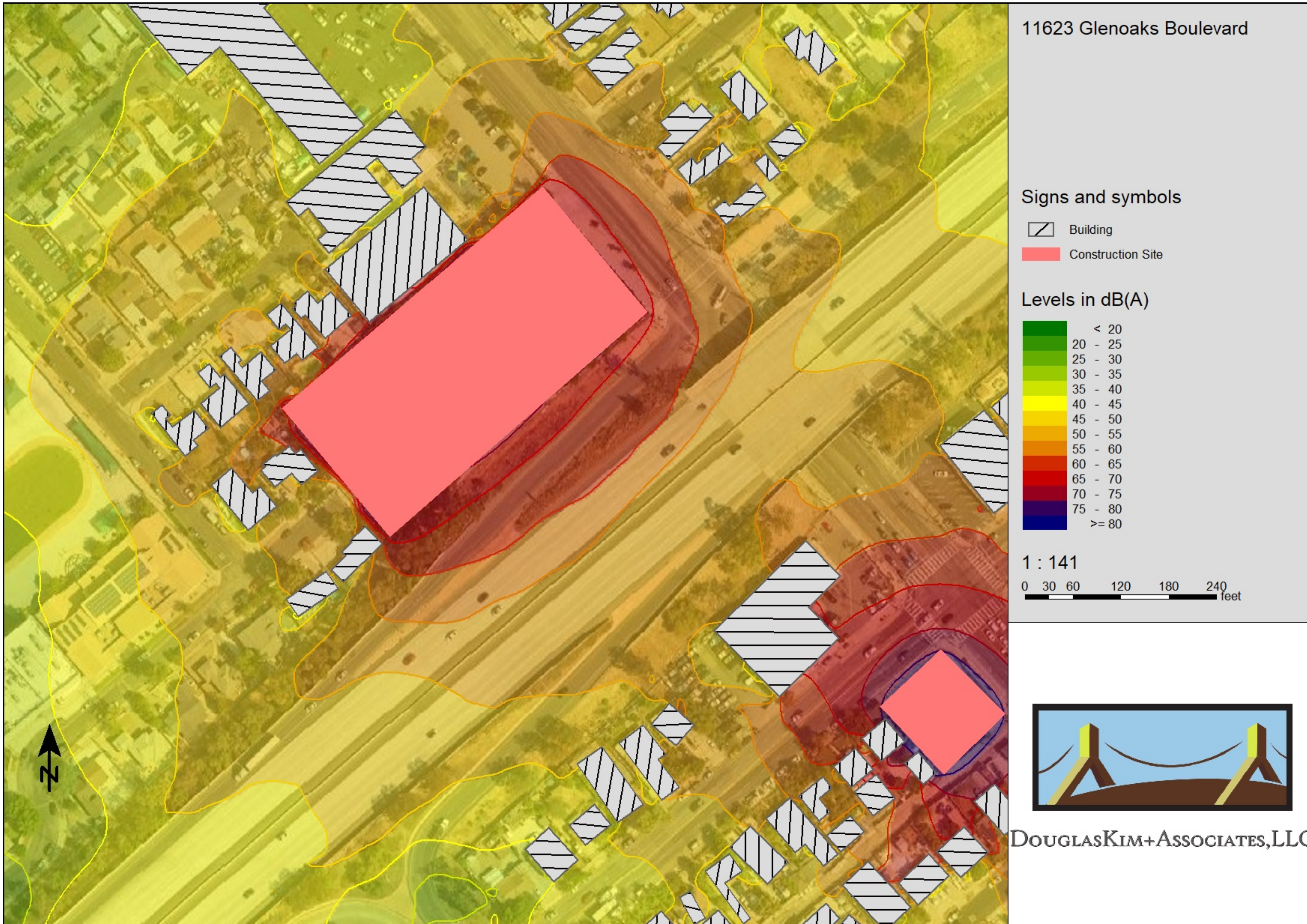
Source name	Size	Reference	Level			Corrections		
			Day	Evening	Night	Cwall	CI	CT
	m/m²		dB(A)	dB(A)	dB(A)	dB	dB	dB
Construction Site	8271 m²	Lw/unit	109.7	-	-	-	-	-
Related Project - 13100 Paxton St.	1148 m²	Lw/unit	109.7	-	-	-	-	-

Receiver list

No.	Receiver name	Coordinates X (in meter)	Coordinates Y (in meter)	Building side	Floor	Height abv.grd. m	Limit Day dB(A)	Level Day dB(A)	Conflict Day dB
1	Middle School	11369164.81	3794108.58	-	GF	335.43	-	47.9	-
2	Residences - Desmont St.	11369226.97	3794187.01	North west	GF	336.92	-	43.7	-
3	Residences - Eustace St.	11369228.62	3794116.46	South east	GF	335.73	-	52.7	-
4	Residences - Glenaoks Bl.	11369385.53	3794216.91	South west	GF	337.40	-	55.4	-
5	Via Avanta	11369278.05	3794221.76	North east	GF	337.06	-	51.8	-

Contribution levels of the receivers

Source name		Traffic lane	Level Day dB(A)
Middle School	GF		47.9
Construction Site		-	47.8
Related Project - 13100 Paxton St.		-	29.8
Residences - Desmont St.	GF		43.7
Construction Site		-	43.6
Related Project - 13100 Paxton St.		-	28.7
Residences - Eustace St.	GF		52.7
Construction Site		-	52.6
Related Project - 13100 Paxton St.		-	35.2
Residences - Glenaoks Bl.	GF		55.4
Construction Site		-	55.2
Related Project - 13100 Paxton St.		-	39.6
Via Avanta	GF		51.8
Construction Site		-	51.7
Related Project - 13100 Paxton St.		-	36.2


N
11623 Glenoaks Boulevard
Signs and symbols
Building
Construction Site
Levels in dB(A)
< 20
20 - 25
25 - 30
30 - 35
35 - 40
40 - 45
45 - 50
50 - 55
55 - 60
60 - 65
65 - 70
70 - 75
75 - 80
>= 80
1 : 141
0 30 60 120 180 240 feet
DouglasKim+Associates,LLC

11623 Glenoaks Boulevard

Signs and symbols

- Building
- Analyzed Sensitive Receptor (Outdoor)
- Analyzed Sensitive Receptor
- Construction Site

1 : 141

0 30 60 120 180 240 feet

DouglasKim+Associates,LLC

Cumulative Construction Noise Impacts

DouglasKim+Associates,LLC

Reference	15.24	meter
Sound Pressure Level	109.7	dBA

Receptor	Existing Leq	Noise	New Leq	Difference Leq	Significant?
Middle School	63.1	47.9	63.2	0.1	**No**
Residences - Desmond St.	53.9	43.7	54.3	0.4	**No**
Residences - Glenoaks Bl.	63.1	55.4	63.8	0.7	**No**
Residences - Eustace St.	73.3	52.7	73.3	0.0	**No**
Via Avanta Facility	68.2	51.8	68.3	0.1	**No**

Mitigation Measures

Temporary Sound Barrier 8.2 feet

LADOT

Attachment C

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 11623 Glenoaks Project

Project Address: 11623 Glenoaks Blvd, Pacoima, CA 91331

Project Description: One six-story mixed-use building with 246 dwelling units including 28 affordable units, 28.853 ksf of supermarket, and 293 parking spaces, replacing a 20.145 ksf DMV office vacated in September 2023. (see Attachment A)

LADOT Project Case Number: ____________ Project Site Plan attached? *(Required)* ☑ Yes ☐ No

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature[1], that are being considered for this project:

✓	Reduced Parking Supply[2] per AB 2097	✓	Bicycle Parking and Amenities		Parking Cash Out

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc.) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

1 Unbundled Parking per AB 1317

2 ____________

3 ____________

4 ____________

5 ____________

6 ____________

III. TRIP GENERATION

Trip Generation Rate(s) Source: ~~ITE 10th Edition~~ ITE 11th Edition / Other & LADOT TAG (Residential)

Trip Generation Adjustment *(Exact amount of credit subject to approval by LADOT)*	**Yes**	**No**
Transit Usage	☐	☑
Existing Active or Previous Land Use	☑	☐
Internal Trip	☑	☐
Pass-By Trip	☑	☐
Transportation Demand Management (See above)	☑	☐

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ☑ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	-13	34	21
PM Trips	69	30	99

Table 1 & Attachment A

NET Daily Vehicle Trips (DVT)
____ DVT (ITE __ ed.)
3,697 DVT (VMT Calculator ver. 1.4)

Figure 2

does not reflect existing use credit

[1] At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

[2] Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.

IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2027 Ambient Growth Rate: 1.7 % Per Yr. Per Project TAZ in City travel demand model

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ☑ Yes ☐ No

STUDY INTERSECTIONS and/or STREET SEGMENTS: Table 2 & Figure 3
(May be subject to LADOT revision after access, safety, and circulation evaluation.)

1 Glenoaks / Vaughn
2 Glenoaks / Eustace
3 Glenoaks / SR-118 WB Ramps
4 Glenoaks / Paxton
5 Paxton / SR-118 EB Ramps
6 ____________

Provide a separate list if more than six study intersections and/or street segments. Figure 4

Is this Project located on a street within the High Injury Network? ☑ Yes ☐ No

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

a. Does the project exceed 1,000 net DVT? ☑ Yes ☐ No
b. Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☑ No
c. Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☑ No

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., complete **Attachment C.1: Access Assessment Criteria**.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should also be submitted to the Department of City Planning for cursory review.

	Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Figure 4	Each study intersection and/or street segment	☑	☐	☐
Figure 7	*Project Vehicle Peak Hour trips at each study intersection	☑	☐	☐
Figure 7	*Project Vehicle Peak Hour trips at each project access point	☑	☐	☐
Figures 5-6	*Project trip distribution percentages at each study intersection	☑	☐	☐
Figure 1	Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	☑	☐	☐
Figure 1	Pedestrian access points and any pedestrian paths	☑	☐	☐
	Pedestrian loading zones	☐	☐	☑
Figure 1	Delivery loading zone or area	☑	☐	☐
Figure 1	Bicycle parking onsite	☑	☐	☐
	Bicycle parking offsite (in public right-of-way)	☐	☐	☑

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

VIII. FREEWAY SAFETY ANALYSIS SCREENING

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☑ **YES** ☐ **NO**

Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

Figure 7

IX. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Andrew Jarnagin | Fehr & Peers	118, LP
Address:	600 Wilshire Blvd, Suite 1050, Los Angeles, CA 90017	PO Box 12980, Marina Del Rey, CA 90295
Phone Number:	(213) 261-3083	(818) 927-2867
E-Mail:	a.jarnagin@fehrandpeers.com	mike@jpgworks.com

Approved by:	x ______________	______________	x Miguel Cris	06/26/2024
	Consultant's Representative	Date	LADOT Representative	**Date
Adjacent Municipality: ______________		Approved by:	______________	______________
		(if applicable)	Representative	Date

**MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

Access Assessment Criteria

This Criteria acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 11623 Glenoaks Project

Project Address: 11623 Glenoaks Blvd, Pacoima, CA 91331

Project Description: One six-story mixed-use building with 246 dwelling units including 28 affordable units, 28.853 ksf of supermarket, and 293 total parking spaces, replacing a 20.145 ksf DMV office vacated in September 2023.

LADOT Project Case Number: ______________________________

II. PEDESTRIAN/ PERSON TRIP GENERATION

Source of Pedestrian/Person Trip Generation Rate(s)? ☑ VMT Calculator ☐ ITE 10th Edition ☐ Other:

	Land Use	Size/Unit	Daily Person Trips
Proposed	All Project Land Uses - See VMT Calculator		555
	(Assume 15% of Project trips)		
	Total new trips:		555

Pedestrian/Person trip generation table including a description of the proposed land uses, trip credits, person trip assumptions, comparison studies used for reference, etc. attached? ☐ Yes ☑ No

III. PEDESTRIAN ATTRACTORS INVENTORY

Attach Pedestrian Map for the area (1,320-foot radius from edge of the project site) depicting: Figure 8

- site pedestrian entrance(s)
- Existing or proposed passenger loading zones
- pedestrian generation/distribution values
  - Geographic Distribution: N 20 % S 35 % E 10 % W 35 % From distribution of pedestrian attractors
- transit boarding and alighting of transit stops (should include Metro rail stations; Metro, DASH, and other municipal bus stops)
- Key pedestrian destinations with hours of operation:
  - schools (school times)
  - government offices with a public counter or meeting room
  - senior citizen centers
  - recreation centers or playgrounds
  - public libraries
  - medical centers or clinics
  - child care facilities
  - post offices

- places of worship
- grocery stores
- other facilities that attract pedestrian trips

- pedestrian walking routes to key destinations from project site

Note: Pedestrian Count Summary, Bicycle Count Summary, Manual Traffic Count Summary will need to be attached to the Transportation Assessment

IV. FACILITIES INVENTORY

Is a High Injury Network street located within 1,320-foot radius from the edge of the project site? ☑ Yes ☐ No
If yes, list streets and include distance from the project: Figure 9

Glenoaks Blvd at 0 (feet)

Paxton St at 600 (feet)

Vaughn St at 800 (feet)

Herrick Ave at 1,000 (feet)

Attach Radius Map for the area (1,320 foot radius from edge of the project site) depicting the following existing and proposed facilities: Figure 9

- transit stops
- bike facilities
- traffic control devices for controlled crossings
- uncontrolled crosswalks
- location of any missing, damaged or substandard sidewalks

For a reference of planned facilities, see the Transportation Assessment Support Map

Crossing Distances

Does the project property have frontage along an arterial street (designated as either an Avenue or Boulevard?)

☑ Yes ☐ No

If yes, provide the distance between the crossing control devices (e.g. signalized crosswalk, or controlled mid-block crossing) along any arterial within 1,320 feet of the property.

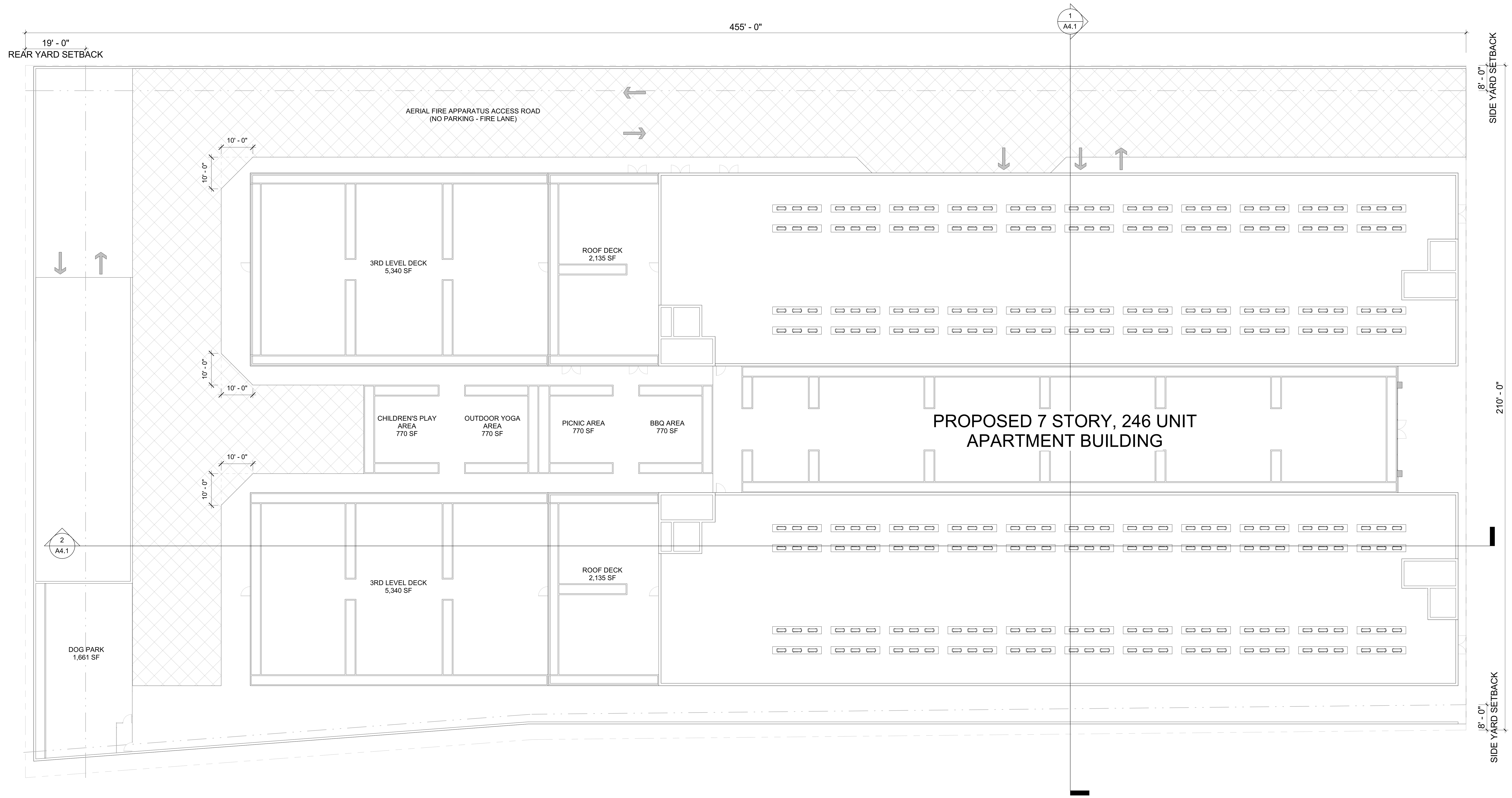
890 (feet) at	Glenoaks Blvd between Vaughn St & SR-118 WB Ramps	________(feet) at	________
450 (feet) at	Glenoaks Blvd between SR-118 WB Ramps & Paxton St	________(feet) at	________
1,225 (feet) at	Paxton St between Glenoaks Blvd & Herrick Ave	________(feet) at	________
1,220 (feet) at	Paxton St between Glenoaks Blvd & Borden Ave	________(feet) at	________
________(feet) at	________	________(feet) at	________
________(feet) at	________	________(feet) at	________

V. Project Construction

Will the project require any construction activity within the city right-of-way? ☑ Yes ☐ No

If yes, will the project require temporary closure of any of the following city facilities?

- ☒ sidewalk
- bike lane
- parking lane
- travel lane
- bus stop
- bicycle parking (racks or corrals)
- bike share or other micro-mobility station
- car share station
- parklet
- other: _________________________



SITE PLAN 1
1/16" = 1'-0"

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:
11623 GLENOAKS
11623 GLENOAKS BLVD,
PACOIMA 91331

Owner:
Owner

Stamp:
LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

Date: 1/16/2024 9:49:29 AM
Issued For
Project Status
Job Number: Project Number

Scale
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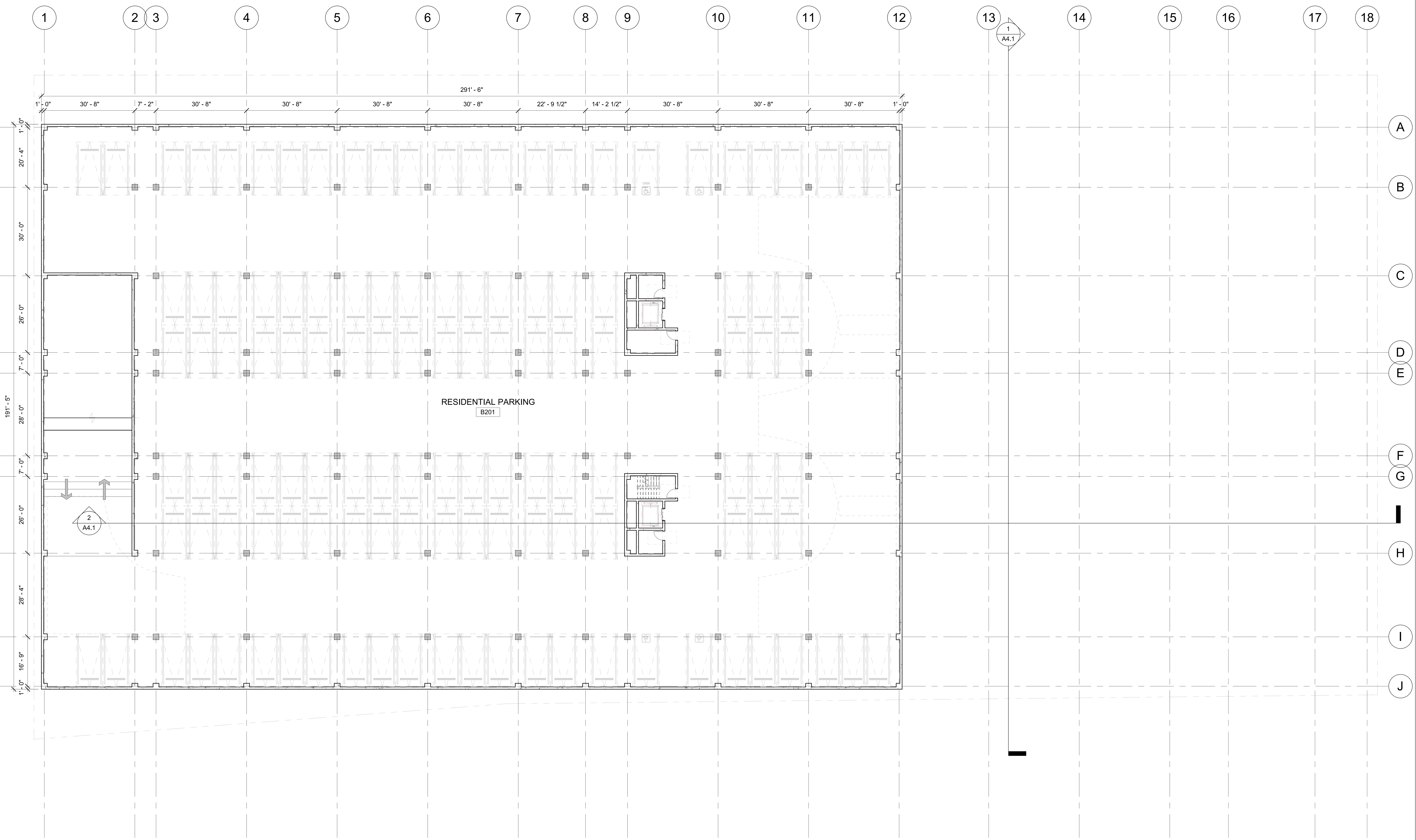
0 4' 8' 16' 32'

Sheet Title
SITE PLAN

Sheet No.
F1-A



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04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

Date: 1/16/2024 9:49:30 AM
Issued For
Project Status
Job Number: Project Number

Scale
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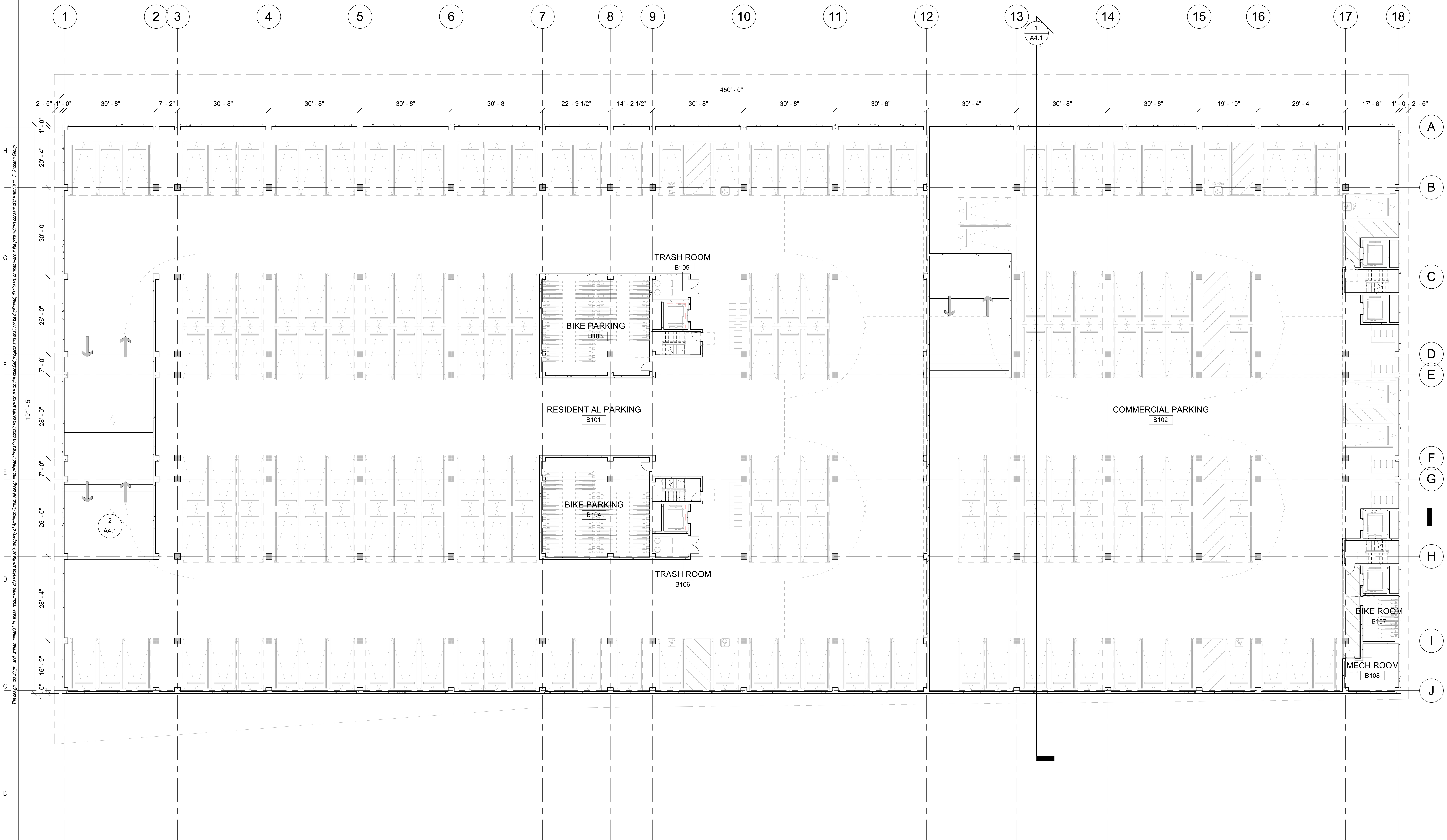
Sheet Title
FLOOR PLAN - BASEMENT 2

Sheet No.
F1-B

BASEMENT 2 1
1/16" = 1'-0"



BASEMENT 1 | 1
1/16" = 1'-0"

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:
11623 GLENOAKS
11623 GLENOAKS BLVD, PACOIMA 91331

Owner:
Owner

Stamp:
LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

Date: 1/16/2024 9:49:32 AM
Issued For
Project Status
Job Number: Project Number

Scale
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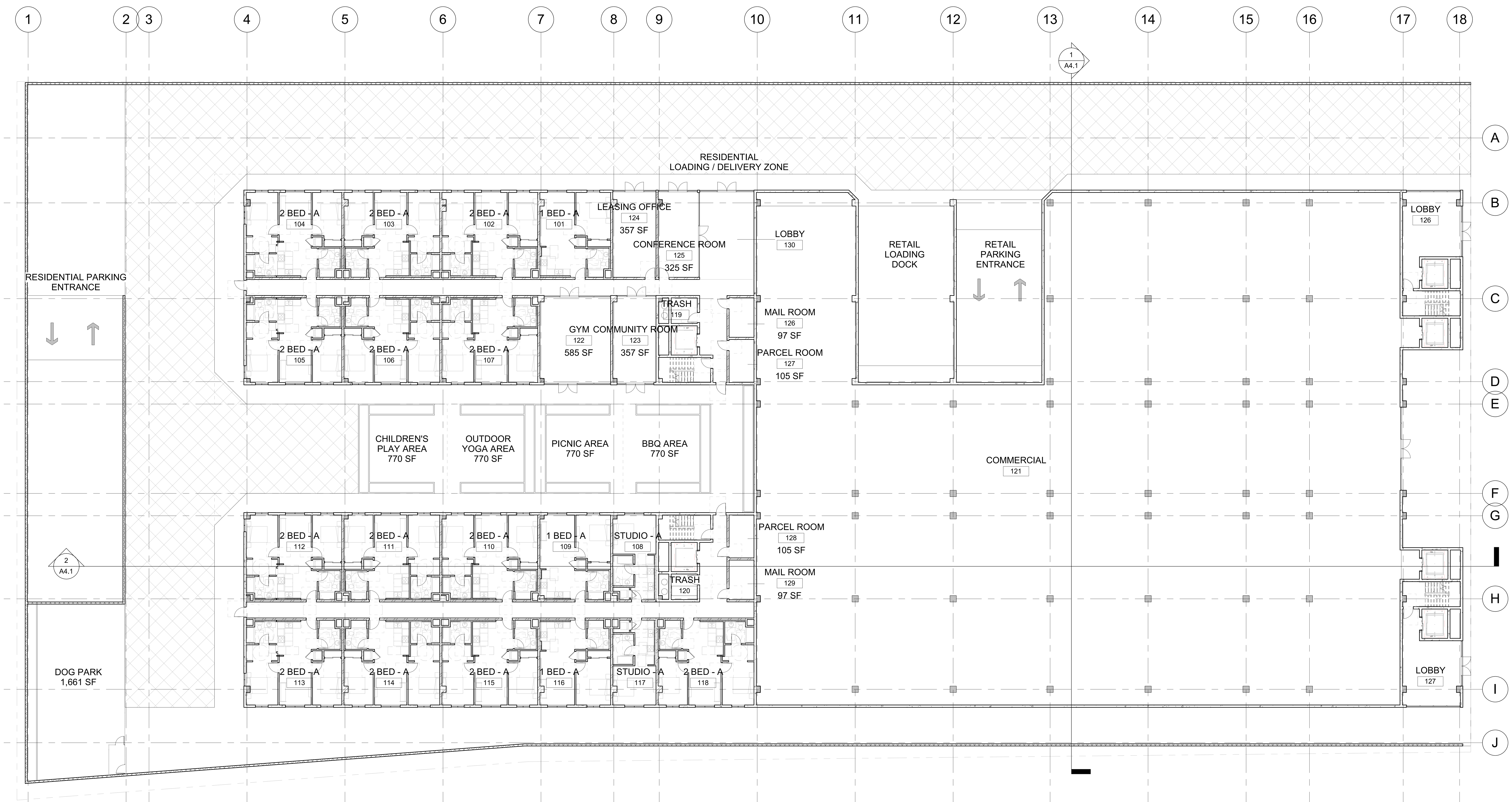
Sheet Title
FLOOR PLAN - BASEMENT 1

Sheet No.
F1-C



ARCHEON

architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:

11623 GLENOAKS

11623 GLENOAKS BLVD,
PACOIMA 91331

Owner:

Owner

Stamp:

LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

Date: 1/30/2024 4:18:34 PM
Issued For
Project Status
Job Number: Project Number

Scale
1/16" = 1'-0"
0 4' 8' 16' 32'

Sheet Title
FLOOR PLAN - GROUND

GROUND FLOOR 1
1/16" = 1'-0"

Sheet No.
F1-D

Table 1: Project Vehicle Trip Generation Estimate

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation					
			AM Peak Hour			PM Peak Hour			AM Peak Hour Trips			PM Peak Hour Trips		
			Rate	In%	Out%	Rate	In%	Out%	In	Out	Total	In	Out	Total
PROPOSED PROJECT														
Multifamily Housing (Mid-Rise)	TAG [e]	218 DU	0.31	23%	77%	0.30	61%	39%	16	52	68	40	25	65
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*(1)*	*(1)*	*(4)*	*(2)*	*(6)*
Net External Vehicle Trips									16	51	67	36	23	59
Family Affordable Housing (Outside TPA Area)	TAG	28 DU	0.55	40%	60%	0.43	55%	45%	6	9	15	7	5	12
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*0*	*0*	*(1)*	*0*	*(1)*
Net External Vehicle Trips									6	9	15	6	5	11
Supermarket	850	28.84 KSF	2.86	59%	41%	8.95	50%	50%	48	34	82	129	129	258
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*(1)*	*(1)*	*(2)*	*(12)*	*(12)*	*(24)*
Less: Walk/Bike/Transit Trip Adjustment [c]				*5%*	*5%*		*5%*	*5%*	*(2)*	*(2)*	*(4)*	*(6)*	*(6)*	*(12)*
Total Driveway Trips									45	31	76	111	111	222
Less: Pass-by [d]			*40%*			*40%*			*(18)*	*(12)*	*(30)*	*(44)*	*(44)*	*(88)*
Net External Vehicle Trips									27	19	46	67	67	134
TOTAL DRIVEWAY TRIPS									67	91	158	153	139	292
TOTAL PROJECT EXTERNAL VEHICLE TRIPS									49	79	128	109	95	204
EXISTING USE CREDIT														
State Motor Vehicles Department	731	20.15 KSF	5.33	58%	42%	5.2	38%	62%	62	45	107	40	65	105
Net External Vehicle Trips									62	45	107	40	65	105
TOTAL EXISTING USE CREDIT									62	45	107	40	65	105
NET INCREMENTAL EXTERNAL TRIPS									-13	34	21	69	30	99

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition* , 2021, or LADOT *Transportation Assessment Guildelines* (TAG), 2022, unless otherwise noted.

[b] Internal capture represents the percentage of trips between land uses that occur within the site. It is informed by MXD 2.0 Mixed Use Trip Generation Methodology, which incorporated the findings of NCHRP Project 8-51 as described in "Improved Estimation for Internal Trip Capture for Mixed-use Developments," ITE Journal, August 2010.

[c] Walk/bike/transit trip adjustment applied to account for the percentage of project trips that occur by walking, biking, or transit. The walk/bike/transit trip adjustment factor applied was determined based on guidance provided in LADOT's *Transportation Assessment Guidelines* (TAG), August 2022.

[d] Pass-by trip adjustment applied to account for the percentage of trips that would already be on the adjacent roadway but make a stop by the Project Site. The pass-by rate applied was determined based on guidance provided in Attachment J of the TAG. Supermarket applied rate: 40%.

[e] Overall rates obtained from TAG. In/Out percentages obtained from ITE Land Use Code 221, Not Close to Rail Transit, General Urban/Suburban.

CITY OF LOS ANGELES VMT CALCULATOR Version 1.4

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

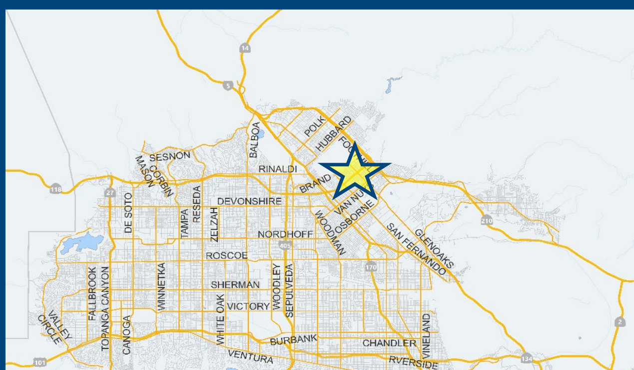
Project Information

Project: 11623 Glenoaks

Scenario: Project

Address: 11623 N GLENOAKS BLVD, 91331

WWW



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ◉ No

Existing Land Use

Land Use Type	Value	Unit
Office | General Office		ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | Supermarket	28.835	ksf
Housing | Multi-Family	218	DU
Retail | Supermarket	28.835	ksf
Housing | Affordable Housing - Family	28	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	**3,697** Daily Vehicle Trips
0 Daily VMT	**33,771** Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	3,697 Net Daily Trips
The net increase in daily VMT ≤ 0	33,771 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	28.835 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

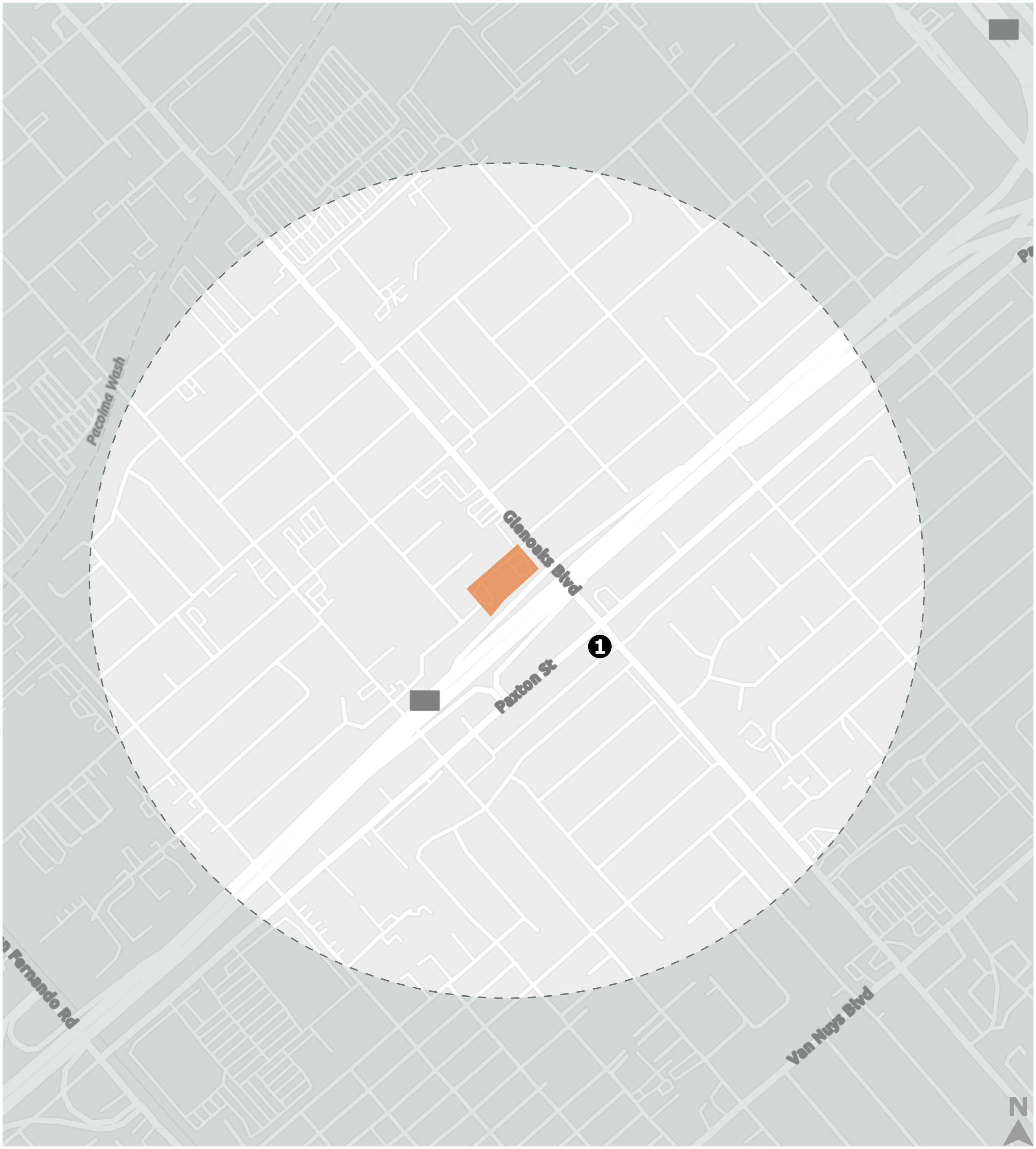
Figure 2

1/29/2024

Table 2: Related Projects

ID	Project Title	Project Address	Land Use	Size	Trip Generation Estimates [a]					
					AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Starbucks Drive-Thru Only	13100 Paxton Street	Retail	.9 ksf	67	68	135	17	16	33

ksf = one thousand square feet
[a] Based on information provided by LADOT on January 2, 2024.



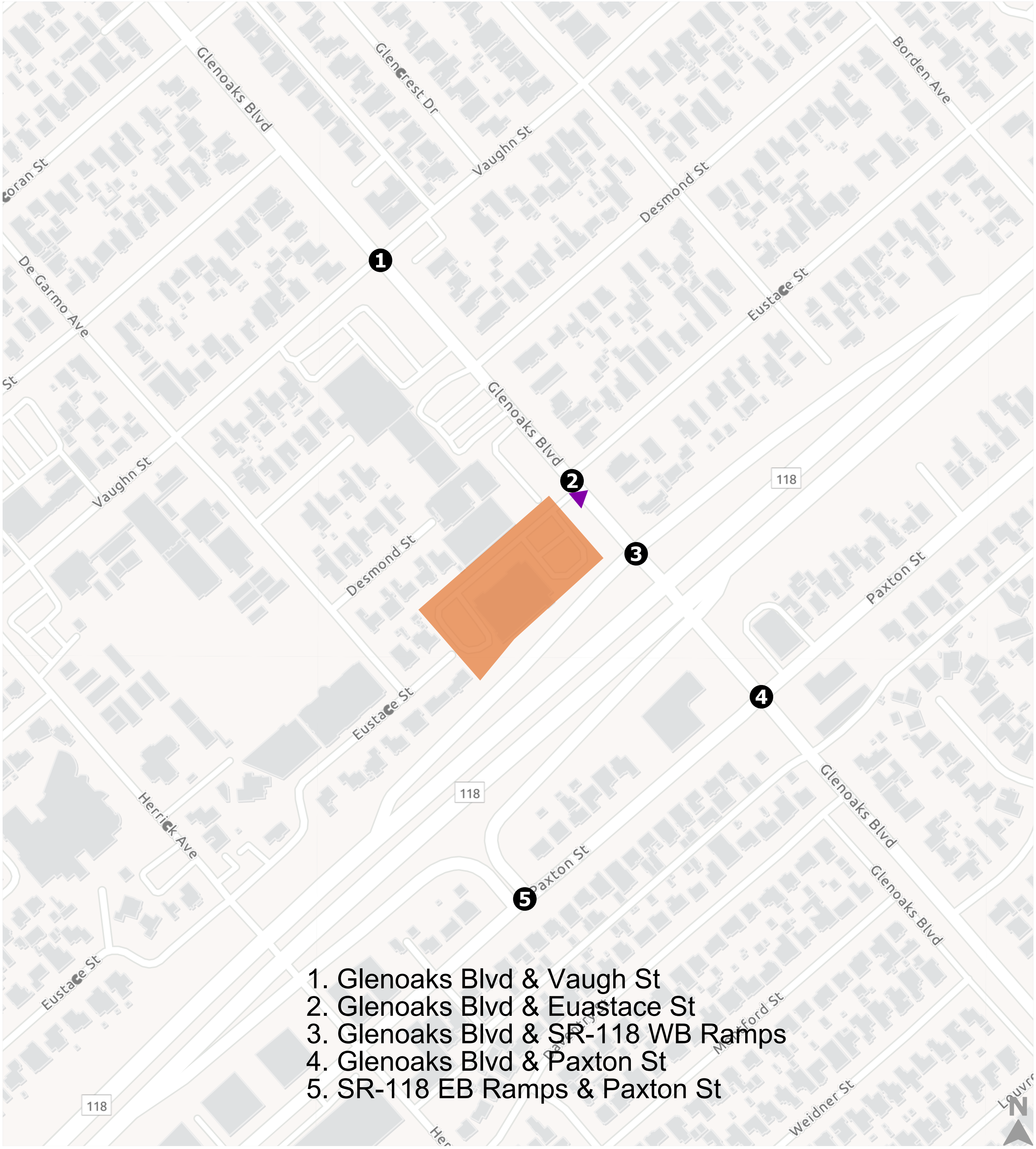
Project Site

Related Projects

1/2 mile radius from Project Site

Figure 3

Related Projects



1. Glenoaks Blvd & Vaugh St
2. Glenoaks Blvd & Euastace St
3. Glenoaks Blvd & SR-118 WB Ramps
4. Glenoaks Blvd & Paxton St
5. SR-118 EB Ramps & Paxton St

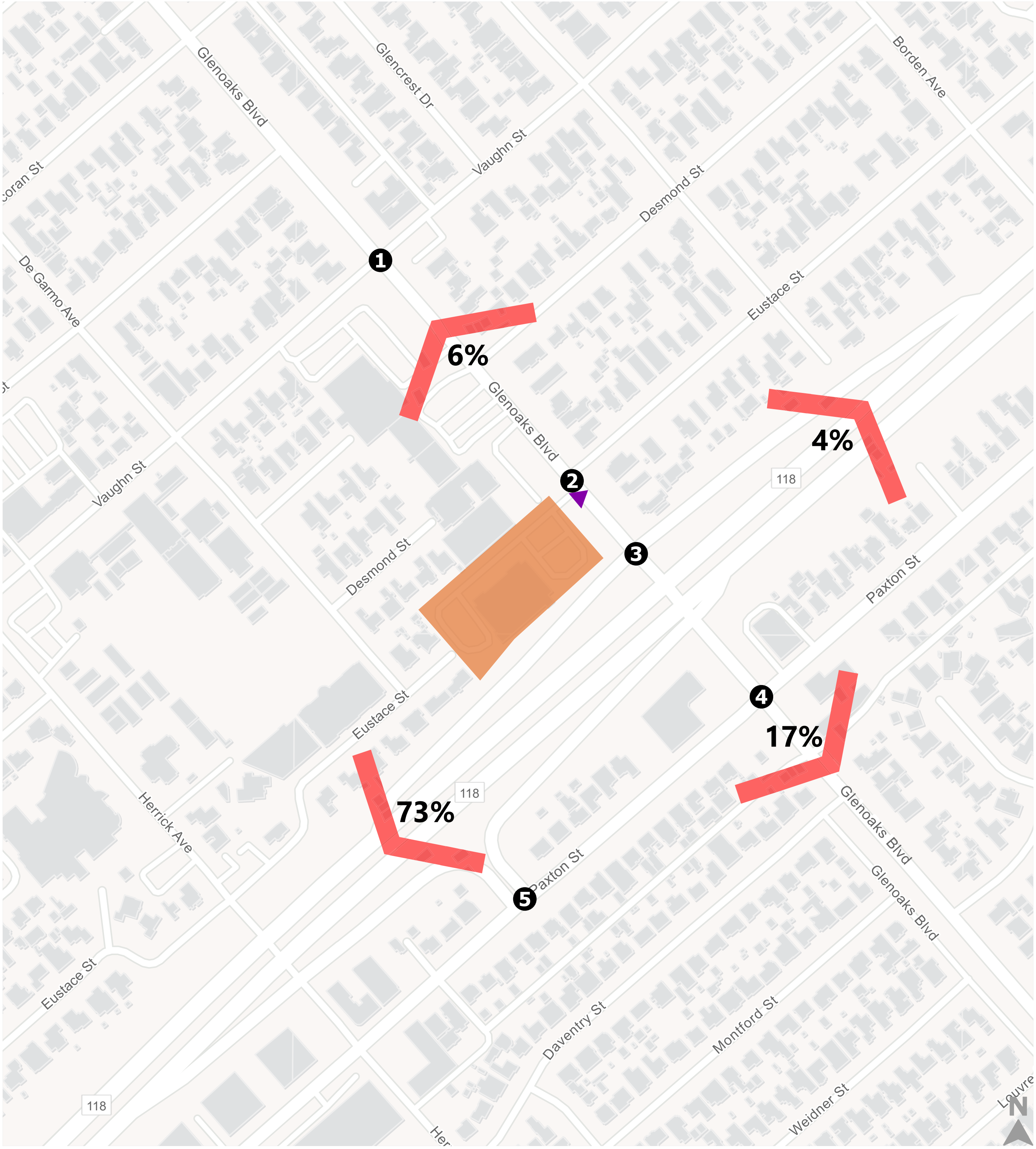
Project Site

Study Intersections

Project Driveway

Figure 4

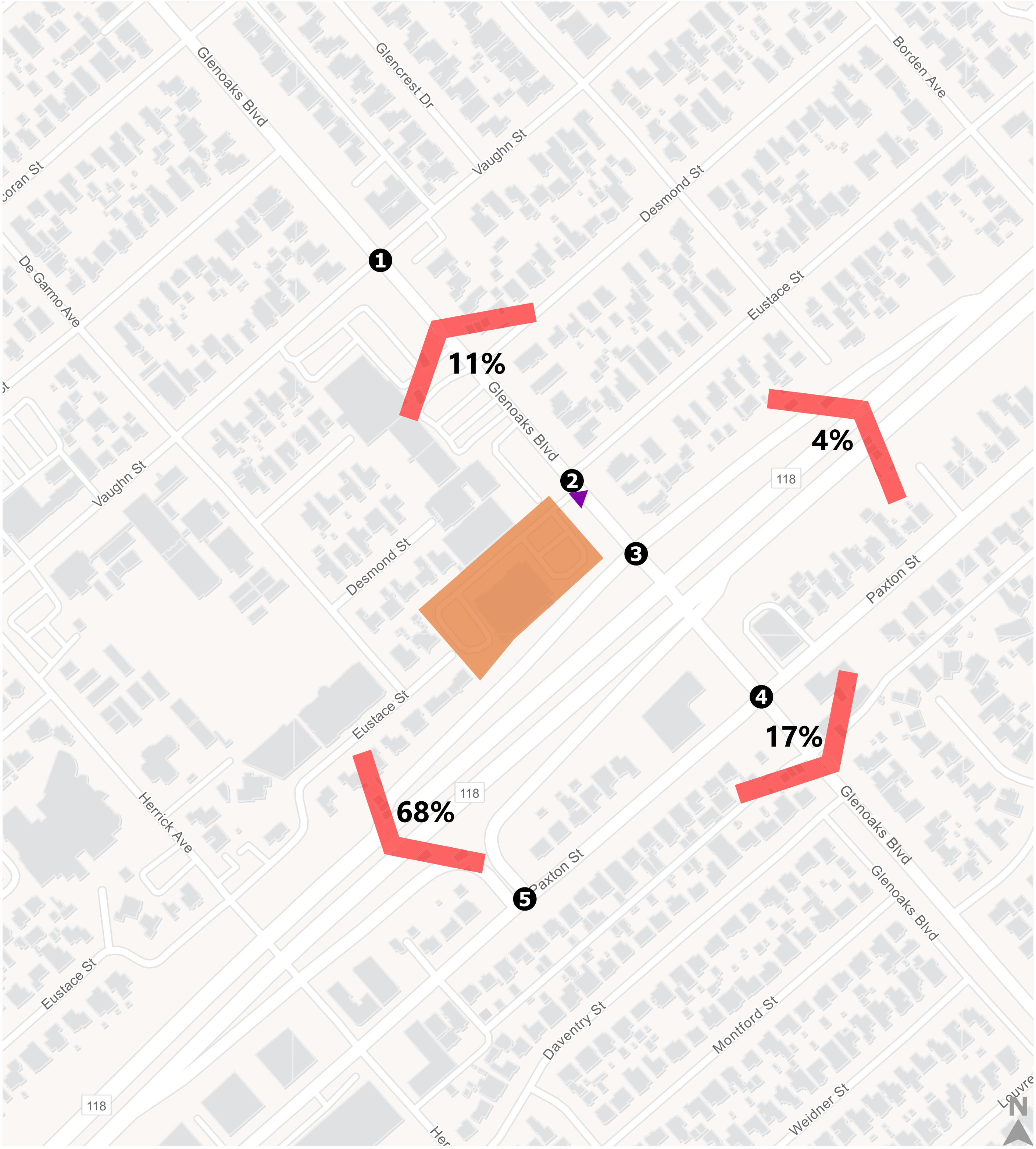
Study Intersections



Project Site
Study Intersections
Project Driveway

Figure 5

Project Trip Distribution (AM)



Project Site

Study Intersections

Project Driveway

Figure 6

Project Trip Distribution (PM)

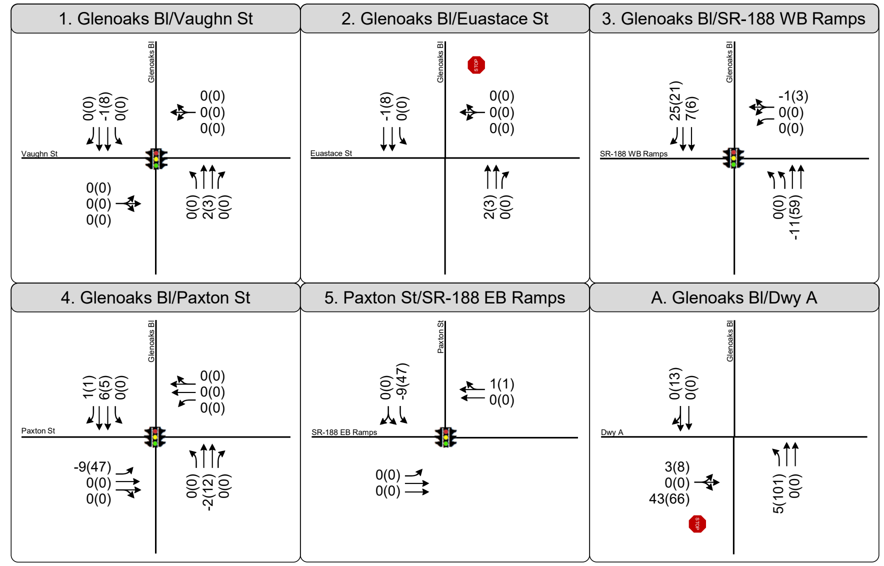
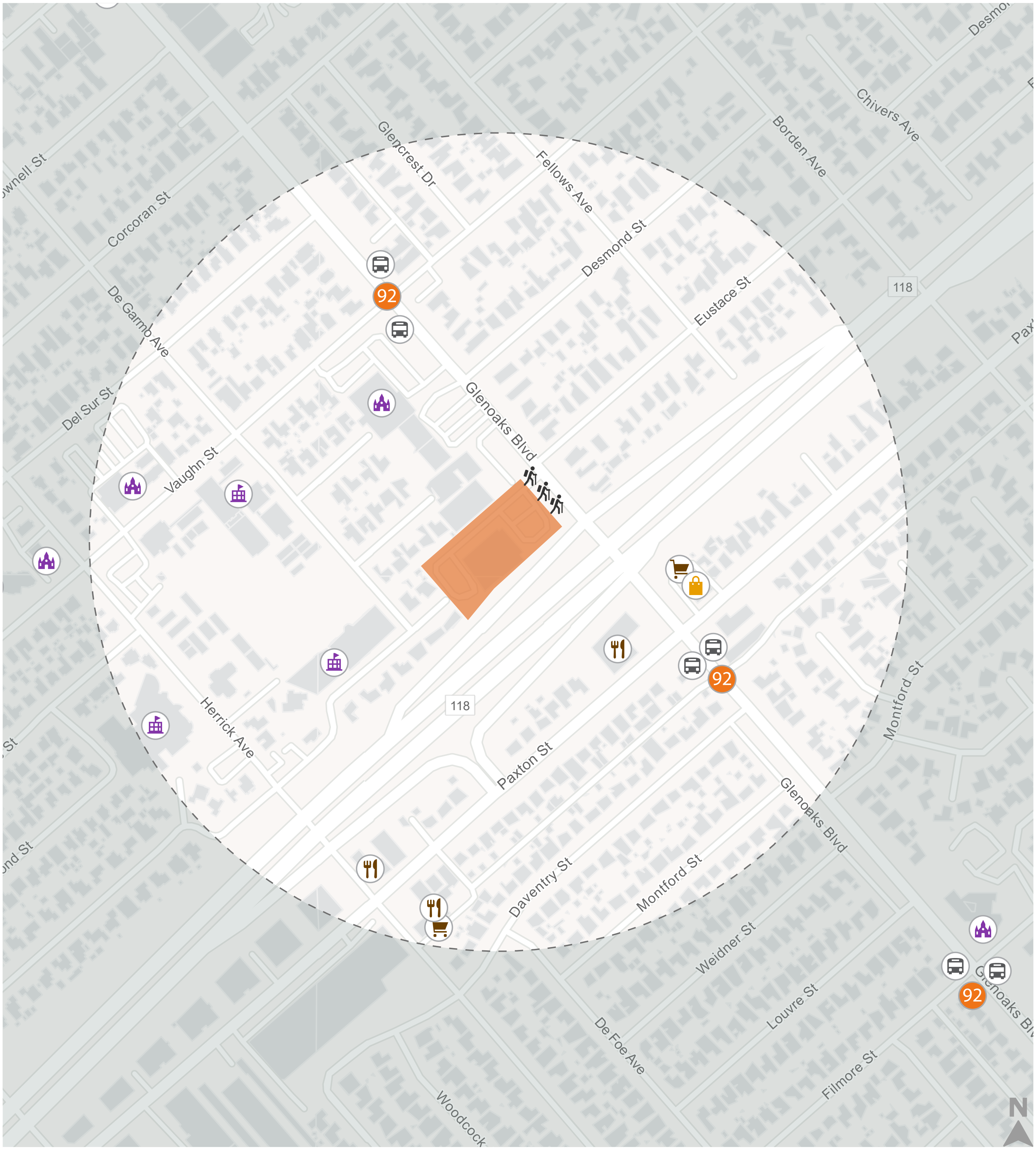


Figure 7
11623 Glenoaks Project
Project Only Volumes AM(PM)



Project Site
1/4 mile radius from Project Site
Site Pedestrian Entrance
Metro Stops (with route #)
Places of Worship
Convenience Store
Restaurant
School
Market/Grocery Store

Figure 8

Pedestrian Attractors Inventory

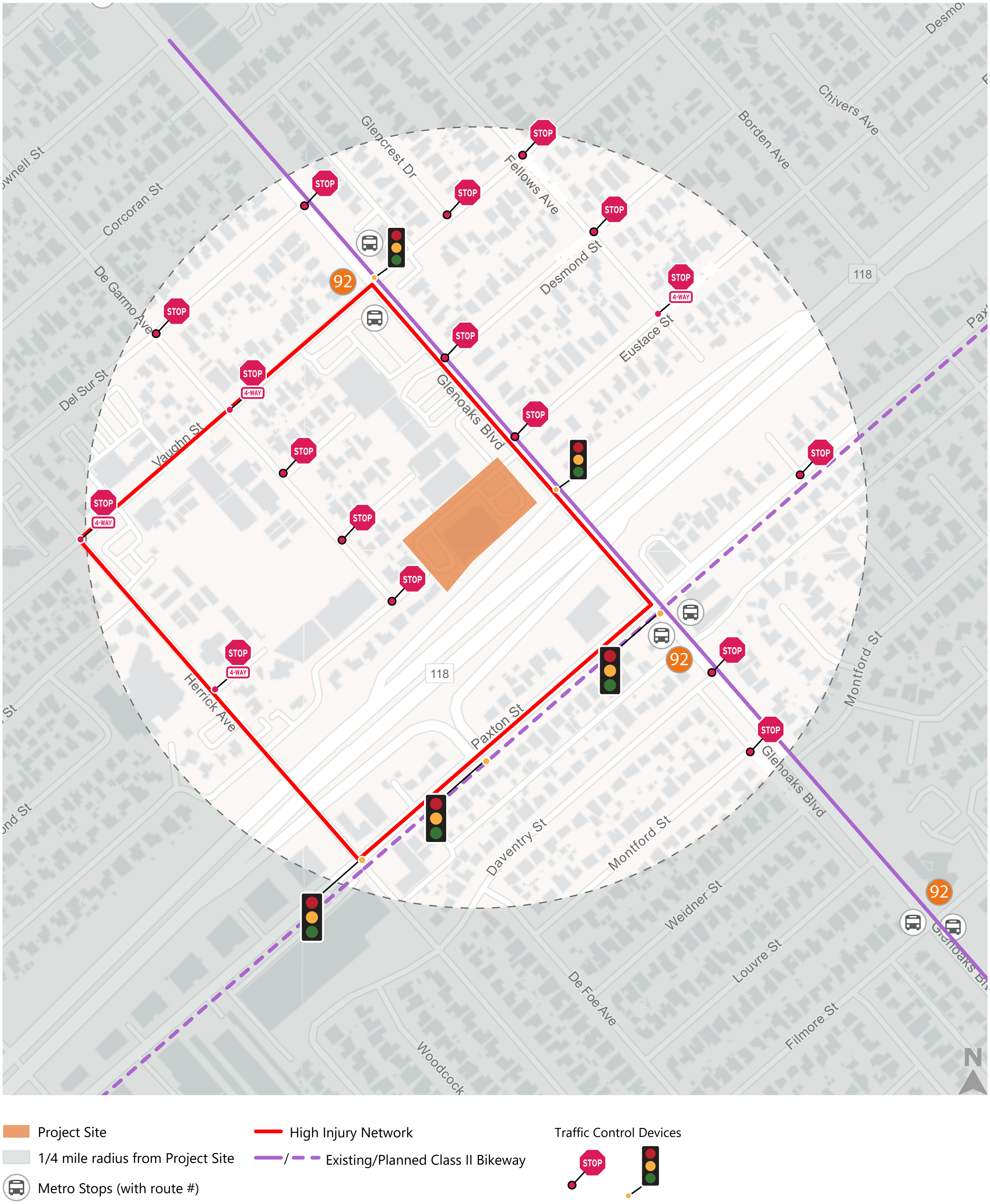


Figure 9

Facilities Inventory

Los Angeles Department of Water & Power

ladwp.com

Attachment A

BILL DATE
Aug 9, 2023

ACCOUNT NUMBER
172 025 5194

DATE DUE
Aug 28, 2023

AMOUNT DUE
$ 8,018.26

CUSTOMER SERVICE – 7:00 am - 6:00 pm
1-800-499-8840

STATE OF CALIFORNIA DEPT OF MOTOR VEHICLES,
11623 GLENOAKS BLVD, PACOIMA, CA 91331

Paying Your Bill

AUTOMATIC PAYMENT
Automatically pay from your checking or savings by logging in at *www.ladwp.com/combillpay*

ONLINE
Pay from your checking or savings any time by logging in at *www.ladwp.com/myaccount*

BY PHONE
Pay from your checking or savings any time by calling 1-877-MYPAYDWP (1-877-697-2939)

BY MAIL
Place your payment stub and your check or money order in the envelope provided with the bill.

IN PERSON
Via payment drop box

The 2021 Power Content Label is included in this bill.

Account Summary

Previous Account Balance		$ 10,955.57
Payment Received 8/3/23	*Thank you*	-10,955.57
Remaining Balance		$ 0.00
New Charges		+ 8,018.26
	Total Amount Due	**$ 8,018.26**

Summary of New Charges

Details on following pages.

Los Angeles Department of Water and Power Charges (800-499-8840)

Electric Charges	7/10/23 - 8/9/23	22,480 kWh	$6,133.05
Water Charges	136 HCF		$1,213.54
		Total LADWP Charges	**$ 7,346.59**

LADWP provides billing services for the Bureau of Sanitation. All money collected for the services listed in the City of Los Angeles Bureau of Sanitation Charges section is forwarded to them.

City of Los Angeles Bureau of Sanitation Charges (LA Sanitation, environment, City of Los Angeles, 800-773-2489)

Sewer Charges	7/10/23 - 8/9/23	$671.67
	Total Sanitation Charges	**$ 671.67**

Total New Charges $ 8,018.26

PLEASE KEEP THIS PORTION FOR YOUR RECORDS. IF PAYING IN PERSON, BRING ENTIRE BILL TO CUSTOMER SERVICE CENTER.

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT, MAKING SURE THE RETURN ADDRESS SHOWS IN THE ENVELOPE WINDOW.

Los Angeles Department of Water & Power

P.O. Box 30808 • Los Angeles, CA 90030-0808

THIS IS YOUR BILL

ELECTRONIC SERVICE REQUESTED

ACCOUNT NUMBER
172 025 5194

DATE DUE Aug 28, 2023

AMOUNT DUE $ 8,018.26

Please enter amount enclosed
$

Write account number on check or money order and make payable to LADWP.

STATE OF CALIFORNIA DEPT OF MOTOR VEHICLES
C/O ACCTS PAYABLE F109
PO BOX 932382
SACRAMENTO CA 94232-3820

17202551940000000008018265

August 2024

11623 Glenoaks Project

Transportation Assessment

Prepared by

FEHR & PEERS

600 Wilshire Boulevard, Suite 1050
Los Angeles, CA 90017
213.261.3050

Table of Contents

Appendices

List of Figures

List of Tables

Executive Summary

This report presents the assumptions, methodologies, and findings of the Transportation Assessment (TA) conducted by Fehr & Peers to evaluate the potential transportation impacts and effects for the 11623 Glenoaks Project (Project) in the City of Los Angeles (City). The Project is located at 11623 Glenoaks Boulevard in Pacoima. This Project proposes a mixed-use development consisting of 218 market-rate and 28 income-restricted multi-family residential dwelling units and 28.881 ksf of supermarket use. The Project would replace an office building at the corner of Glenoaks Boulevard and the SR-118 westbound on-ramp.

This transportation assessment was conducted in line with guidance provided in the Los Angeles Department of Transportation's (LADOT) 2022 *Transportation Assessment Guidelines* (TAG) and the Project's TA Memorandum of Understanding (MOU) with LADOT dated June 2024.

CEQA Assessment

The analyses included in the California Environmental Quality Act (CEQA) assessment and presented in this report are:

- **Plan, Program, Ordinance, and Policy Review:** This analysis identified whether the Project's transportation requirements and corrective actions are in conflict with the City's transportation goals and policies. Specifically, the analysis evaluated whether the Project has any potential conflicts with adopted City plans and policies.
- **Vehicle Miles Traveled Analysis:** This analysis assessed whether the Project would cause an impact on vehicle miles traveled (VMT). The analysis utilized the LADOT VMT Calculator tool (Version 1.4) to assess VMT impacts of the Project.
- **Geometric Design Feature Review:** This analysis reviews the Project's site plan for any increases in potential hazards due to the design of access to the Project. The analysis considers hazards relating to vehicles, bicycles, and pedestrians, and their safety, operational and capacity impacts.

Based on the thresholds of significance identified in the TAG and in accordance with CEQA, and as discussed in this report, the Project would have a less-than-significant impact on the environment, and no mitigation measures are required.

Non-CEQA Assessment

The analyses included in the non-CEQA assessment and presented in this report are:

- **Pedestrian, Bicycle, and Transit Assessment:** This analysis determined the Project's potential effect on pedestrian, bicycle, and transit facilities in the vicinity of the Project. The analysis included an inventory of existing facilities, as well as an evaluation utilizing criteria provided in the TAG.

- **Project Access, Safety, and Circulation Evaluation:** This evaluation analyzed Project access and intersection operations in line with the evaluation methodologies and criteria provided in the TAG. Under Senate Bill 743 and the TAG, the Project's operational evaluation is not for consideration under CEQA and is instead analyzed in accordance with the TAG. Operational evaluations such as intersection level of service (LOS) are not considered metrics for determining transportation significant impacts under CEQA.
- **Project Construction Analysis:** This analysis addressed activities associated with Project construction through the lens of temporary transportation constraints, temporary loss of access, and temporary impacts to transit.

Based on the analyses outlined above, the following Project-related recommended actions were identified, in addition to establishing a Construction Traffic Management Plan and Construction Worker Parking Plan in coordination with the City:

- **Transportation Demand Management (TDM) Measures:** Although the Project is not expected to cause any significant transportation impact or non-CEQA operational issues in accordance with the TAG, the Project is required to comply with Section 12.26 J of the LAMC (TDM Ordinance) because it includes more than 25,000 square feet of gross floor area of non-residential uses. The Project also proposes volunteed project design features as TDM measures to reduce trips, traffic, VMT, and greenhouse gas emissions:
    - TDM Ordinance:
        - The owner shall provide a bulletin board, display case, or kiosk (displaying transportation information) where the greatest number of employees are likely to see it. The transportation information displayed should include, but is not limited to, the following:
            - Current routes and schedules for public transit serving the site;
            - Telephone numbers for referrals on transportation information including numbers for the regional ridesharing agency and local transit operations;
            - Ridesharing promotion material supplied by commuter-oriented organizations;
            - Regional / local bicycle route and facility information;
            - A listing of on-site services or facilities which are available for carpoolers, vanpoolers, bicyclists, and transit riders.
    - Project design features:
        - Reduced parking supply (320 spaces) compared to Los Angeles Municipal Code (LAMC) baseline requirements (346 spaces), in accordance with AB 2097.
        - Unbundled cost of parking from residential leases.
        - Bicycle parking per LAMC.

1. Introduction

This report documents the assumptions, methodologies, and findings of the transportation assessment to evaluate the potential transportation impacts of the proposed 11623 Glenoaks Project (Project). This Project proposes a mixed-use development consisting of market-rate and income-restricted multi-family residential dwelling units and supermarket uses. The Project would replace an office building at the corner of Glenoaks Boulevard and SR-118 westbound on-ramp.

1.1 Project Description

The Project Site is bounded by Glenoaks Boulevard, SR-118 westbound on-ramp, and neighboring residential and commercial areas (Project Site). The Project is generally located at 11623 Glenoaks Boulevard in the Arleta-Pacoima Community Plan Area of the City of Los Angeles (City) and Council District 7. The Project Site currently consists of:

- One (1) office building totaling 20,145 sf

The Project proposes one seven-story building with the following uses:

- 218 market-rate multi-family residential dwelling units
- 28 income-restricted multi-family residential dwelling units
- 28,881 sf of supermarket space

The Project would shift the existing driveway on Glenoaks Boulevard northwest to the property line.

Figure 1 shows the location of the Project Site in the context of the surrounding roadway network. Regional vehicular access to the Project Site is provided by the SR-118, I-5, and I-210. SR-118 is accessible at ramps serving Glenoaks Boulevard (Glenoaks Boulevard exit). I-5 is accessible at the interchange with SR-118 or via ramps serving San Fernando Road or. I-210 is accessible at the interchange with SR-118 or via ramps serving Foothill Boulevard and Paxton Street. Local vehicular access is provided primarily by Glenoaks Boulevard and other connecting streets.

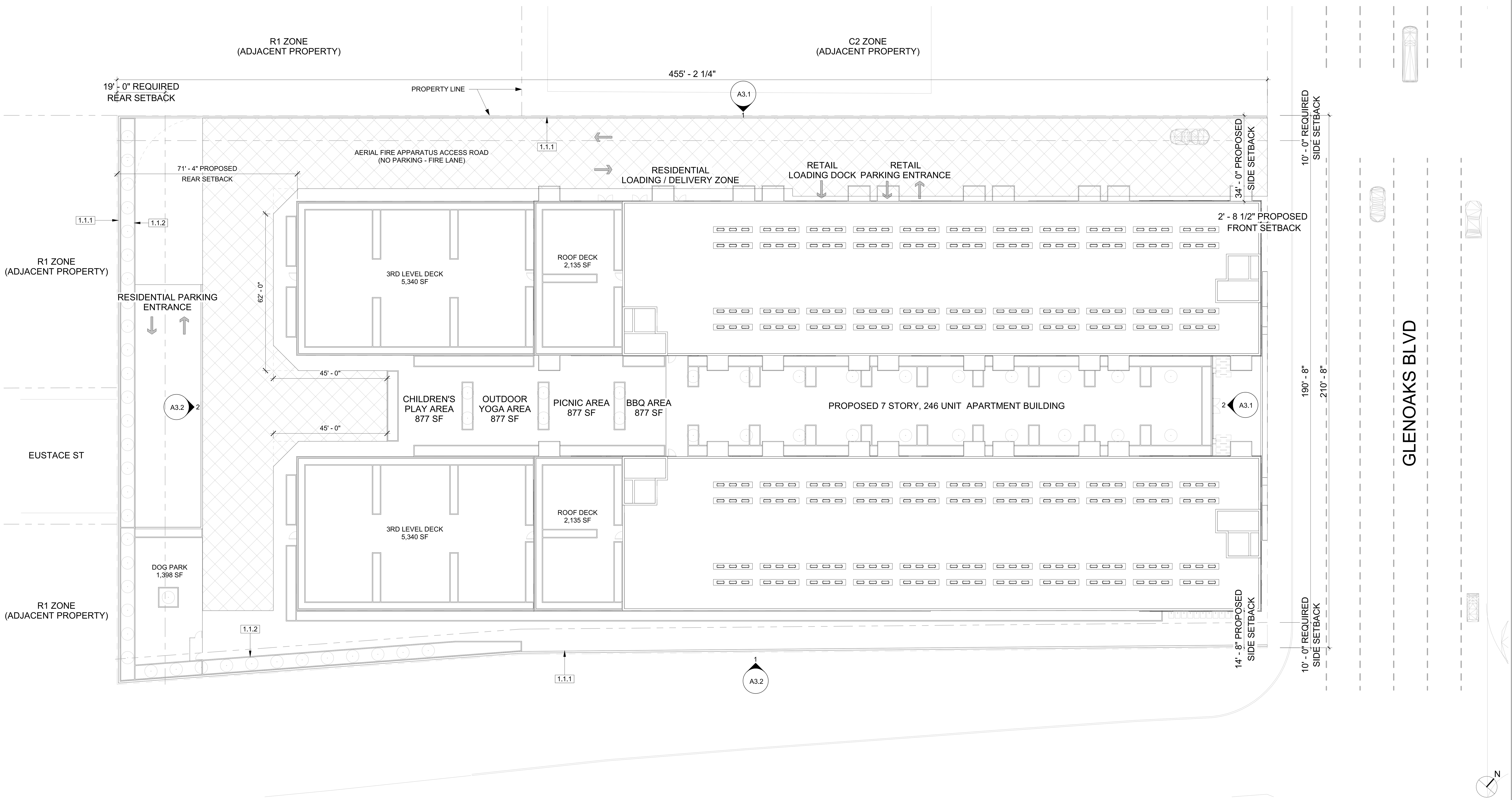
Figure 2 shows the Project site plan. Vehicular access to the Project Site would be provided via one driveway that provides access to subterranean parking for residents and supermarket customers. It would allow left- and right-turn in and right-out only access.

Pedestrian access to the Project Site would be provided along the Glenoaks Boulevard frontage. Transit access is provided by the Los Angeles Metropolitan Transportation Authority (Metro) bus stops near to the Project Site at Vaughn Street and Paxton Street serving Line 92. Line 92 operates seven days a week and provides service headways of approximately 20-25 minutes during weekday peak periods. Transit service is further described in detail in Chapter 2.1.

Project Site

Figure 1

Project Site Location



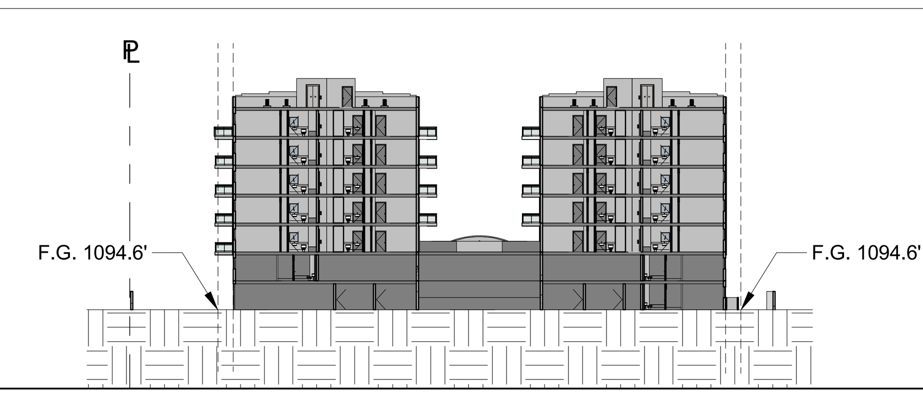
SITE PLAN 1
1" = 20'-0"

1.1.1	6'HT. CMU FENCE WALL UNDER SEPARATE PERMIT
1.1.2	42"HT. PLANTER WALL

KEY NOTES

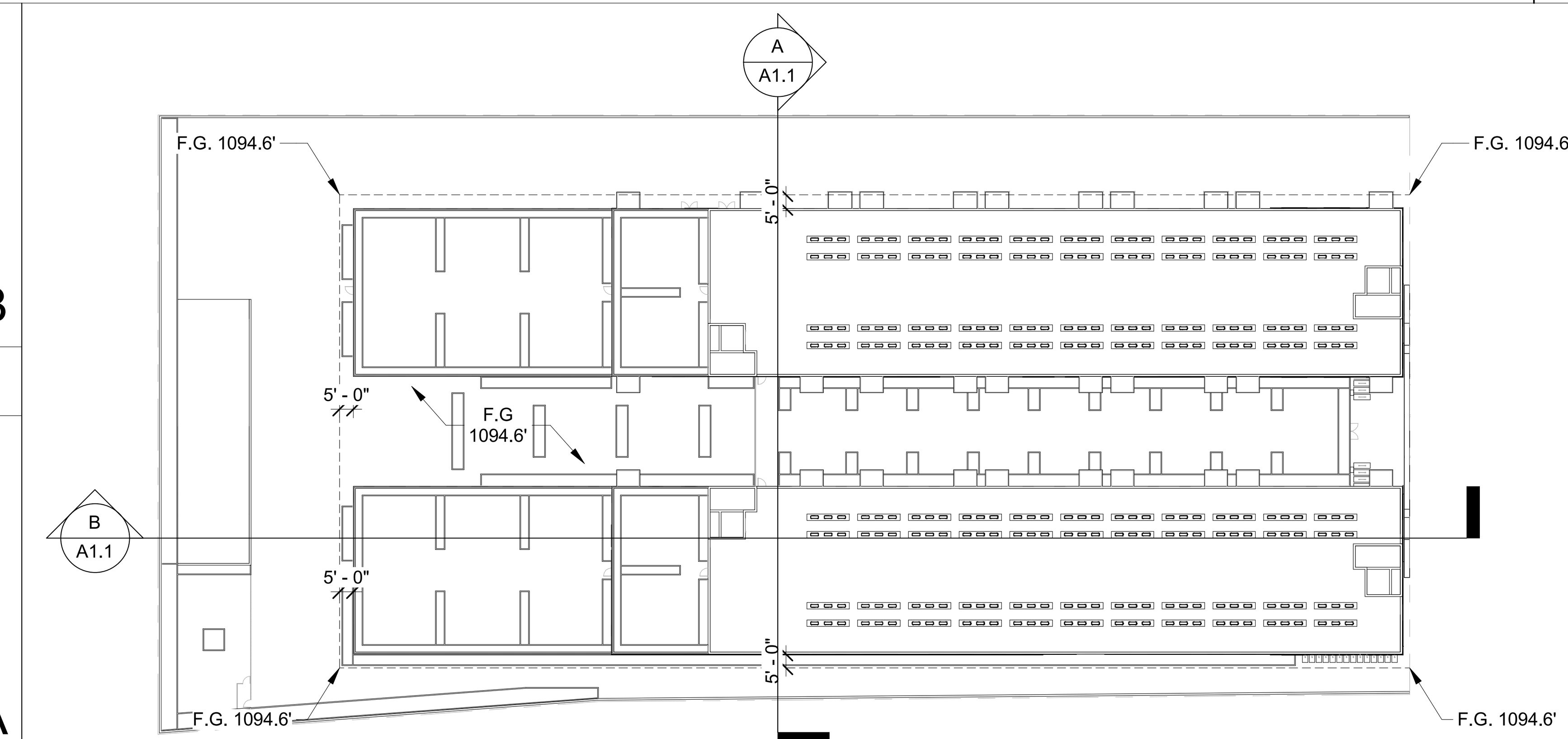
B

LOWEST POINT - SECTION 1



A

LOWEST POINT - SECTION 2



LOWEST GRADE

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:
GLORY
11623 GLENOAKS BLVD,
PACOIMA CA 91331

Owner:
118, LP.
3121 STANFORD AVE,
VENICE CA 90292

Stamp:
LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Revision No.		Date
1	PZA 2nd submittal set	04/19/2024
2	Affordable housing 2nd submittal set	04/19/2024

APPROVAL STAMP

Date: 5/15/2024 2:05:27 PM
Issued For
Project Status
Job Number: Project Number

Scale
As indicated
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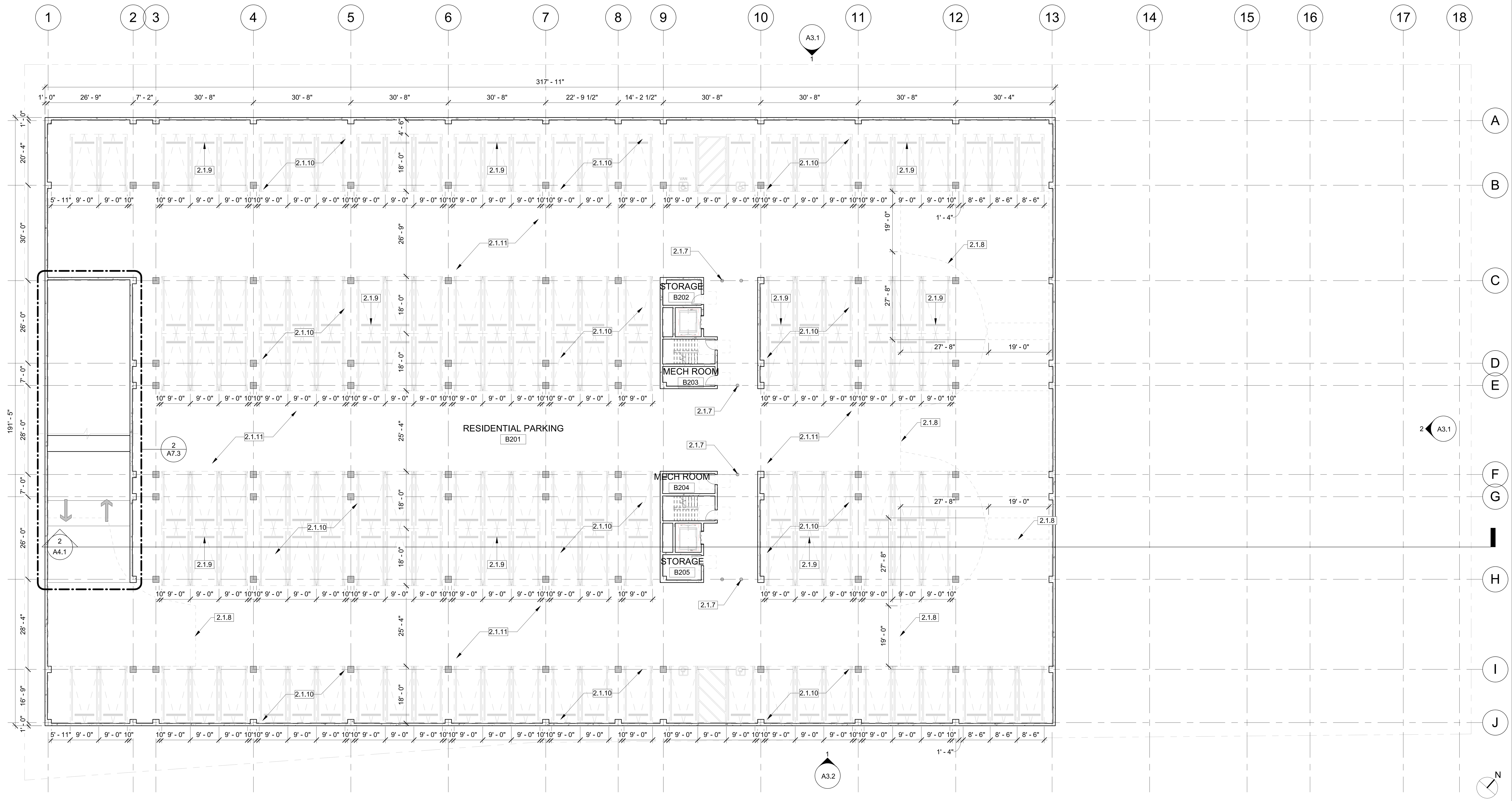
Sheet Title
SITE PLAN

Sheet No.
Figure 2A



BASEMENT 2 | 1
1/16" = 1'-0"

2.1.7	BOLLARD, SEE 3/A10.1
2.1.8	CASE 1 TURNING RADIUS, SEE 1/A0.0.4
2.1.9	WHEEL STOP
2.1.10	6.67% MAX. SLOPE ON ANY DIRECTION IN PARKING STALL
2.1.11	20% MAX. SLOPE / 10% MAX. CROSS SLOPE ON DRIVEWAY OR RAMP

PROPERTY LINE
ACCESSIBLE PATH OF TRAVEL
AREA WITH 8'-2" MIN. VERTICAL CLR.

SYMBOLS:

WALL TAG
(#) WALL TYPE, SEE A9.1

ROOM TAGS
UNIT TYPE
ROOM NUMBER
AREA

KEY NOTE
KEY VALUE
KEYNOTE

WINDOW/DOOR TAGS PER A8.1-A8.3
DOOR TAG, SEE A8.1-A8.2
WINDOW TAG, SEE A8.3

LEGEND

1. SEE ENLARGED FLOOR PLANS FOR DETAILS
2. SEE LANDSCAPE SHEETS FOR LANDSCAPING DETAILS
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8. ALL INTERIOR WALLS AND CEILINGS TO BE GYP BRD WITH PAINT AT A MINIMUM CLASS RATING OF C.

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GENERAL NOTES

1. 4HR CONCRETE WALL
2. 3HR CMU WALL
3. 2HR EXTERIOR WALL
4. 2HR FIRE SEPARATION WALL
5. 2HR STAIRCASE WALL
6. 1HR DEMISING WALL
7. 2HR SHAFT WALL
8. INTERIOR PARTITION WALL
9. PLUMBING WALL

WALL TYPE

ARCHEON
architecture
development
management
3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:
GLORY
11623 GLENOAKS BLVD,
PACOIMA CA 91331

Owner:
118, LP.
3121 STANFORD AVE,
VENICE CA 90292

Stamp:
LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
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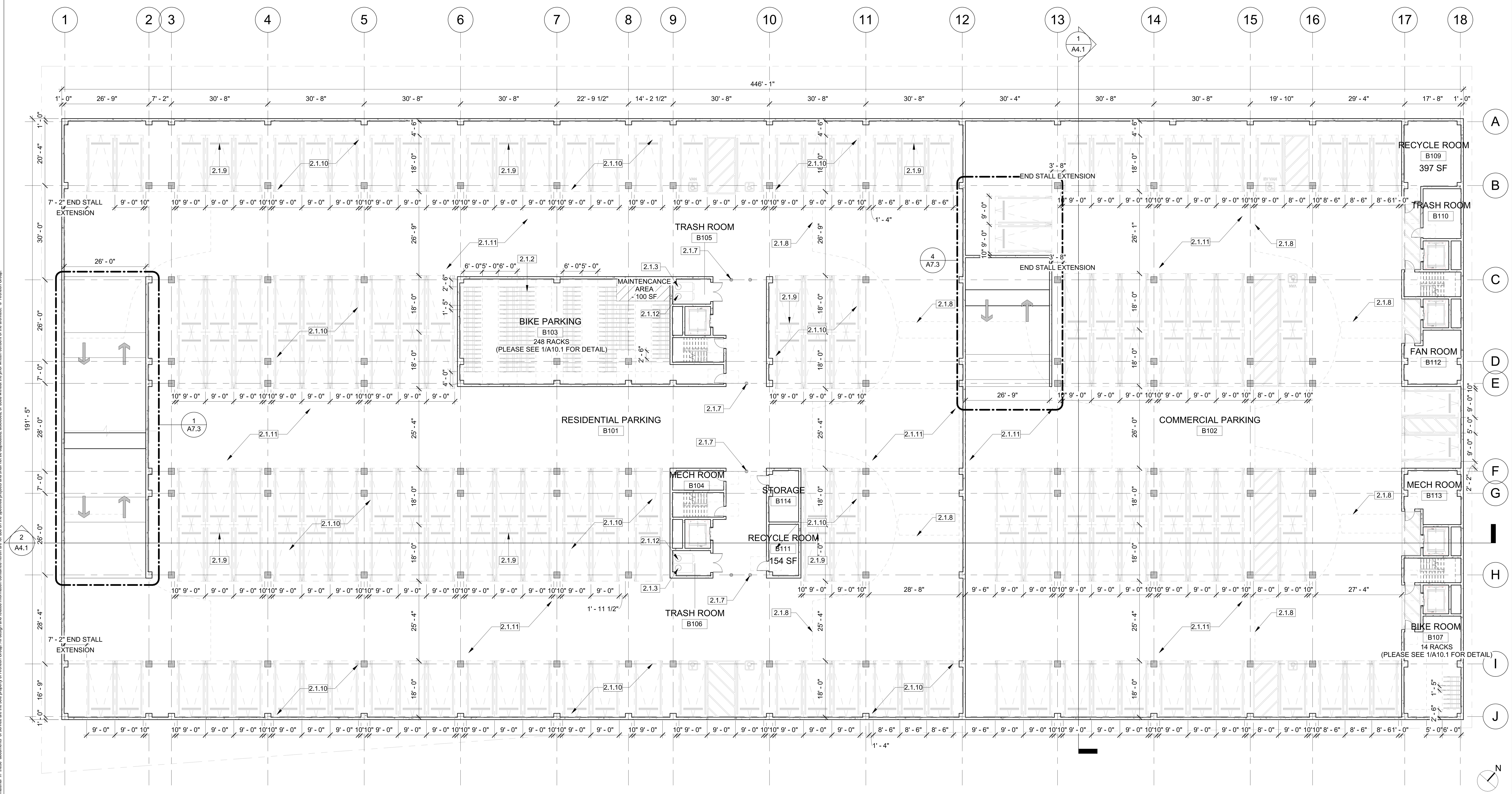
Sheet Title
FLOOR PLAN - BASEMENT 2

Sheet No.

Figure 2B



BASEMENT 1 | 1
1/16" = 1'-0"

KEY NOTES

2.1.2	LONG-TERM BICYCLE PARKING, SEE 1/A10.1
2.1.3	RECYCLE CHUTE (CLEARLY MARKED "RECYCLING ONLY")
2.1.7	BOLLARD, SEE 3/A10.1
2.1.8	CASE 1 TURNING RADIUS, SEE 1/A0.0.4
2.1.9	WHEEL STOP
2.1.10	6.67% MAX. SLOPE ON ANY DIRECTION IN PARKING STALL
2.1.11	20% MAX. SLOPE / 10% MAX. CROSS SLOPE ON DRIVEWAY OR RAMP
2.1.12	TRASH CHUTE

LEGEND

PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL

AREA WITH 8'-2" MIN. VERTICAL CLR.

SYMBOLS:

WALL TAG

(#) WALL TYPE, SEE A9.1

ROOM TAGS

UNIT TYPE
ROOM NUMBER
AREA

KEY NOTE

KEY VALUE
KEYNOTE

WINDOW/DOOR TAGS PER A8.1-A8.3

DOOR TAG, SEE A8.1-A8.2

WINDOW TAG, SEE A8.3

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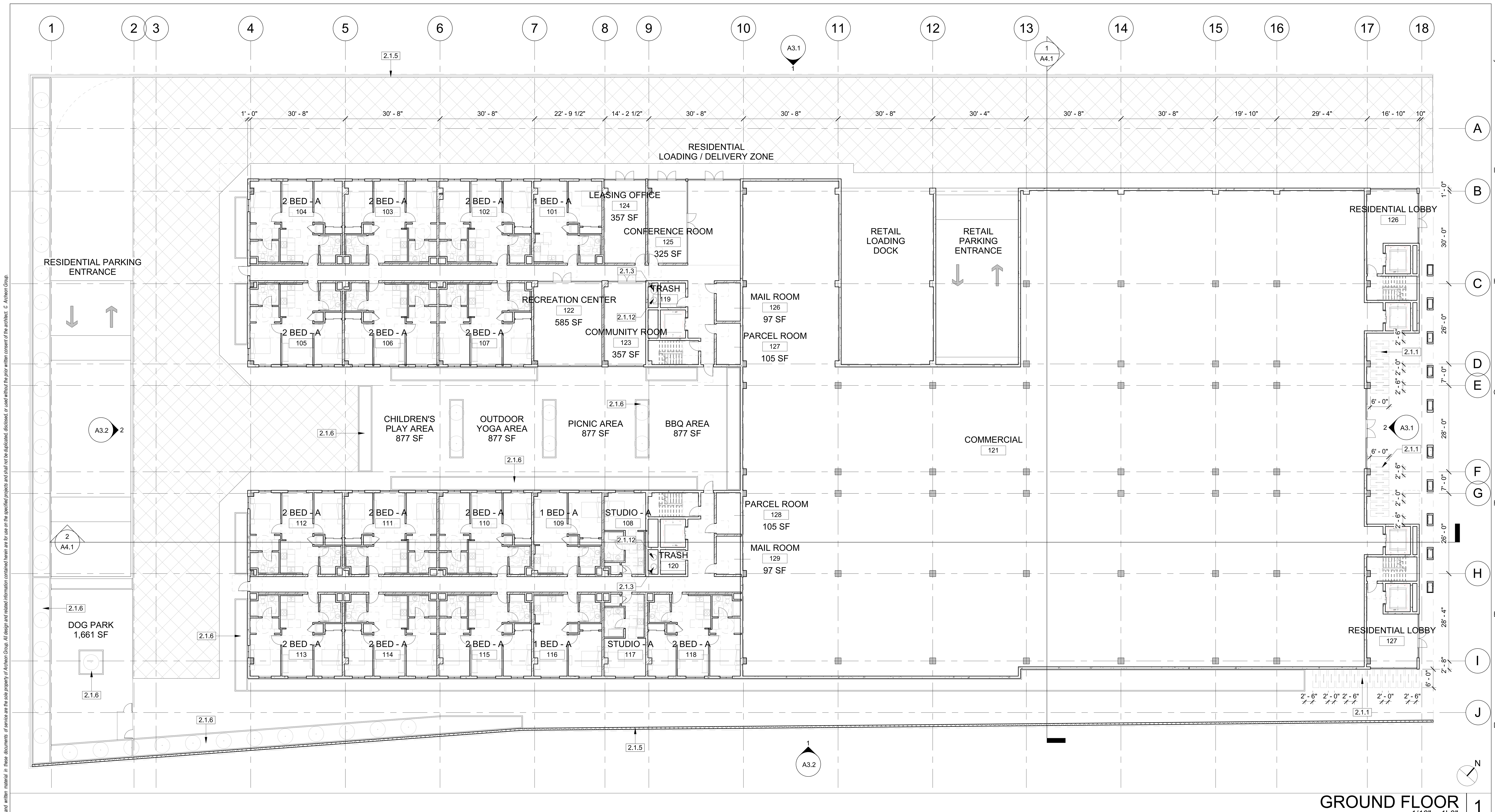
Sheet Title
FLOOR PLAN - BASEMENT 1

Sheet No.

Figure 2C



KEY NOTES

2.1.1	SHORT-TERM BICYCLE PARKING, SEE 2/A10.1
2.1.3	RECYCLE CHUTE (CLEARLY MARKED "RECYCLING ONLY")
2.1.5	6'HT. CMU FENCE WALL UNDER SEPARATE PERMIT
2.1.6	42"HT. PLANTER WALL
2.1.12	TRASH CHUTE

LEGEND

PROPERTY LINE

ACCESSIBLE PATH OF TRAVEL

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Sheet Title
FLOOR PLAN - GROUND

Sheet No.

Figure 2D

1.2 Study Scope

The scope of work for this study was determined in consultation with the Los Angeles Department of Transportation (LADOT) and is in accordance with the City's CEQA transportation thresholds of significance and LADOT's *Transportation Assessment Guidelines* (TAG) adopted in July 2019, and updated in August 2022.[1] The base assumptions and technical methodologies were discussed with LADOT as part of the study approach and agreed to in a transportation assessment memorandum of understanding (MOU) dated June 2024. The MOU is included in **Appendix A** to this document.

The TAG establishes a set of guidelines, methods, and impact criteria for CEQA considerations that focus on policy conflicts, vehicle miles traveled (VMT), and geometric hazards, and freeway safety analysis. The TAG also establishes a framework for various non-CEQA analyses including a pedestrian, bicycle, and transit access assessment; a project access, safety, and circulation assessment; project construction review; and residential street cut-through analysis. Each area of analysis is described in the TAG with a discussion of screening criteria, the methodology for analysis, impact criteria, and potential mitigation or corrective action options. **Table 1** outlines the issues areas evaluated for the Project based on the screening criteria set forth in the TAG. The TAG screening analysis is available for reference in **Appendix B**. The study area boundary for this transportation assessment is a quarter-mile radius from the boundary of the Project Site for transit, pedestrian, and bike assessments, which were selected based on guidance in the TAG and as approved by LADOT through the Project MOU process.

1.3 Organization of Report

This report is divided into four chapters, including this introduction, as follows, in addition to the aforementioned executive summary:

- **Chapter 1: Introduction -** Introduces the Project description and required scope of the transportation assessment.
- **Chapter 2: Environmental Setting -** Describes the existing transportation system in the study area, including an overview of local and regional auto, pedestrian, bicycle, and transit access to the Project. Also describes cumulative conditions within the study area, including proposed transportation system improvements and related development projects.
- **Chapter 3: CEQA Transportation Assessment -** Includes required CEQA analyses, including a plans, programs, ordinances, and policies review; VMT analysis; and geometric hazards evaluation.
- **Chapter 4: Non-CEQA Transportation Assessment -** Summarizes the required non-CEQA transportation analyses, including a pedestrian, bicycle, and transit access assessment; access, safety, and circulation evaluation; a construction analysis, and a residential street cut-through analysis.

[1] City of Los Angeles Department of Transportation, *Transportation Assessment Guidelines (TAG)*, August 2022.

Table 1: TAG Screening Criteria Issue Areas

TAG Issue Area	Analysis Required?
CEQA Analyses:	
Conflicts with Plans, Programs, Ordinances, and Policies	Yes
Causing Substantial Additional Vehicle Miles Traveled	Yes
Substantially Inducing Additional Automobile Travel	No
Geometric Design Features	Yes
Freeway Safety Analysis	Yes
Non-CEQA Analyses:	
Pedestrian, Bicycle, and Transit Access	Yes
Project Access, Safety, and Circulation	Yes
Project Construction	Yes
Residential Street Cut-Through	No

2. Environmental Setting

The Project Site is located at the following address: 11623 Glenoaks Boulevard. It is currently developed with a 146,000 sf office building and surface parking and is bounded by commercial development to the north, the SR-118 on-ramp to the south, Glenoaks Boulevard to the east, and residential development to the west. **Figure 1** shows the Project Site location.

2.1 Existing Conditions

The Project Site is situated in the Arleta-Pacoima Community Plan Area of the City, a suburban, urban and industrial area with a variety of population, employment, and retail services.

The Project Site currently contains one (1) office building totaling 20,145 sf. This parcel was most recently used as a California Department of Motor Vehicles (DMV) Driver License Processing Center, which vacated in September 2023. Along Glenoaks Boulevard, directly west of the Project, is the Didi Hirsch Psychiatric Services building. Directly next to this building is a small commercial strip mall. To the north and south of the Project is a residential neighborhood consisting of single-family homes. The nearest transit station is the Sylmar/San Fernando Metrolink station, approximately 2.7 miles away.

Vehicular access to the Project's vacant parcels is provided via one driveway along Glenoaks Boulevard. Pedestrian access to the Project is located along Glenoaks Boulevard.

Existing Street System

Regional access to the Project Site is provided primarily by SR-118. SR-118 is accessible at ramps serving Glenoaks Boulevard, Paxton Street, and San Fernando Road. Local access to the Project Site is provided by Glenoaks Boulevard and other connecting streets. **Table 2** and **Table 3** provide an overview of the regional and local roadways, respectively, serving the Project Site. The street descriptions include the designation of the roadway under the City's General Plan Mobility Element, *Mobility Plan 2035,* approved by the Los Angeles City Council in August 2015 and amended in September 2016. In addition, the *Mobility Plan 2035* identifies networks proposed to prioritize bicycle, pedestrian, transit, and vehicle infrastructure improvements. These networks are defined as the following:

- **The Neighborhood-Enhanced Network** (NEN) is a selection of streets that provide comfortable and safe routes for localized travel of slower-moving modes such as walking, bicycling, or other slow speed motorized means of travel.
- **The Transit-Enhanced Network** (TEN) is the network of arterial streets prioritized to improve existing and future bus service for transit riders.
- **The Bicycle-Enhanced Network** (BEN) is a network of streets to receive treatments that prioritize bicyclists. Tier 1 Protected Bicycle Lanes are bicycle facilities that are separated from vehicular

traffic. Tier 2 and Tier 3 Bicycle Lanes are facilities on roadways with striped separation. Tier 2 Bicycle Lanes are those more likely to be built by 2035.

- **The Vehicle-Enhanced Network** (VEN) identifies streets that prioritize vehicular movement and offer safe, consistent travel speeds and reliable travel times.
- **The Pedestrian-Enhanced Districts** (PEDs) identify where pedestrian improvements on arterial streets could be prioritized to provide better walking connections to and from the major destinations within communities.

Table 2: Regional Access to the Project Site[1]

Name	Direction	Posted Speed (mph)	Total Number of Lanes	Nearby Access Points
State Route 118	East-West	65	9	Glenoaks Blvd, Paxton St, San Fernando Rd
Interstate 5	North-South	65	14	Paxton St, Van Nuys Blvd
Interstate 210	East-West	65	10	Paxton St

Notes

1. Characteristics for the segment of the roadway closest to the Project Site:

The closest freeway is SR-118. The Project Site is adjacent to the SR-118 ramps at Glenoaks Boulevard.

Table 3: Local Access to the Project Site[1]

Name	Designation[2]	Posted Speed (mph)	Total Number of Lanes	Parking	Bike Facilities	Mobility Plan 2035 Network[2]
East-West Roadways						
Eustace St	Local Street	25	2	Both sides of street		
Desmond St	Local Street	25	2	Both sides of street		
Vaughn St	Collector	25	2	Both sides of street		
Del Sur St	Local Street	25	2	Both sides of street		
Paxton St	Avenue II	40	4	Both sides of street		BLN Tier 3
Daventry St	Local Street	25	2	Both sides of street		
Montford St	Local Street	25	2	Both sides of street		
North-South Roadways						
Glenoaks Blvd	Boulevard II	35	4	Not permitted	Class II Bicycle Lanes (south of Brownell St)	TEN (south of Arroyo St), BLN Tier 2 (south of Arroyo St), PED (south of Filmore St)
De Garmo Ave	Local Street	25	2	Both sides of street		
Herrick Ave	Collector	25	2	Both sides of street		NEN (south of Brownell St)
Fellows Ave	Local Street	25	2	Both sides of street		
Borden Ave	Collector	25	2	Both sides of street		

Notes

1. Characteristics for the segment of the roadway closest to the Project Site.
2. As designated by the City of Los Angeles, *Mobility Plan 2035, An Element of the General Plan* .

Source: Fehr & Peers, 2024.

Existing Public Transit Service

Figure 3 shows nearby transit facilities in the context of the Project Site. **Table 4** summarizes transit lines, frequencies, and ridership in the Project Site vicinity. Bus service is primarily provided via Line 92, which stops near the Project Site at Glenoaks Boulevard and Vaughn Street, as well as Glenoaks Boulevard and Paxton Street. See **Appendix C** for detailed schedule information for nearby transit services.

Existing Pedestrian and Bicycle Facilities

Pedestrian Facilities

Glenoaks Boulevard, classified as Boulevard II, is the primary major roadway directly adjacent to the Project Site. Segments of Glenoaks Boulevard are designated as part of the MP2035 Pedestrian Enhanced District (PED) and Transit Enhanced Network (TEN). Both sides of Glenoaks Boulevard have existing sidewalks. Paxton Street, classified as Avenue II, is another major roadway within the vicinity of the Project Site and has existing sidewalks on both sides. Other roadways within proximity of the Project Site include Vaughn Street, Herrick Avenue, and Borden Avenue, all of which are classified as Collector streets. The majority of Collector and Local streets near the Project Site have a mature network of pedestrian facilities (summarized in **Table 5**, **Table 6,** and **Figure 4**) including sidewalks and pedestrian safety features. However, some intersections in the vicinity are missing curb ramps, and some existing curb ramps lack ADA-compliant tactile warning strips.

Bicycle Facilities

Figure 5 shows existing bicycle facilities in the Project area. Bicycle facilities in the study area consist of the Class II bicycle lanes on Glenoaks Boulevard directly in front of the Project.

High-Injury Network

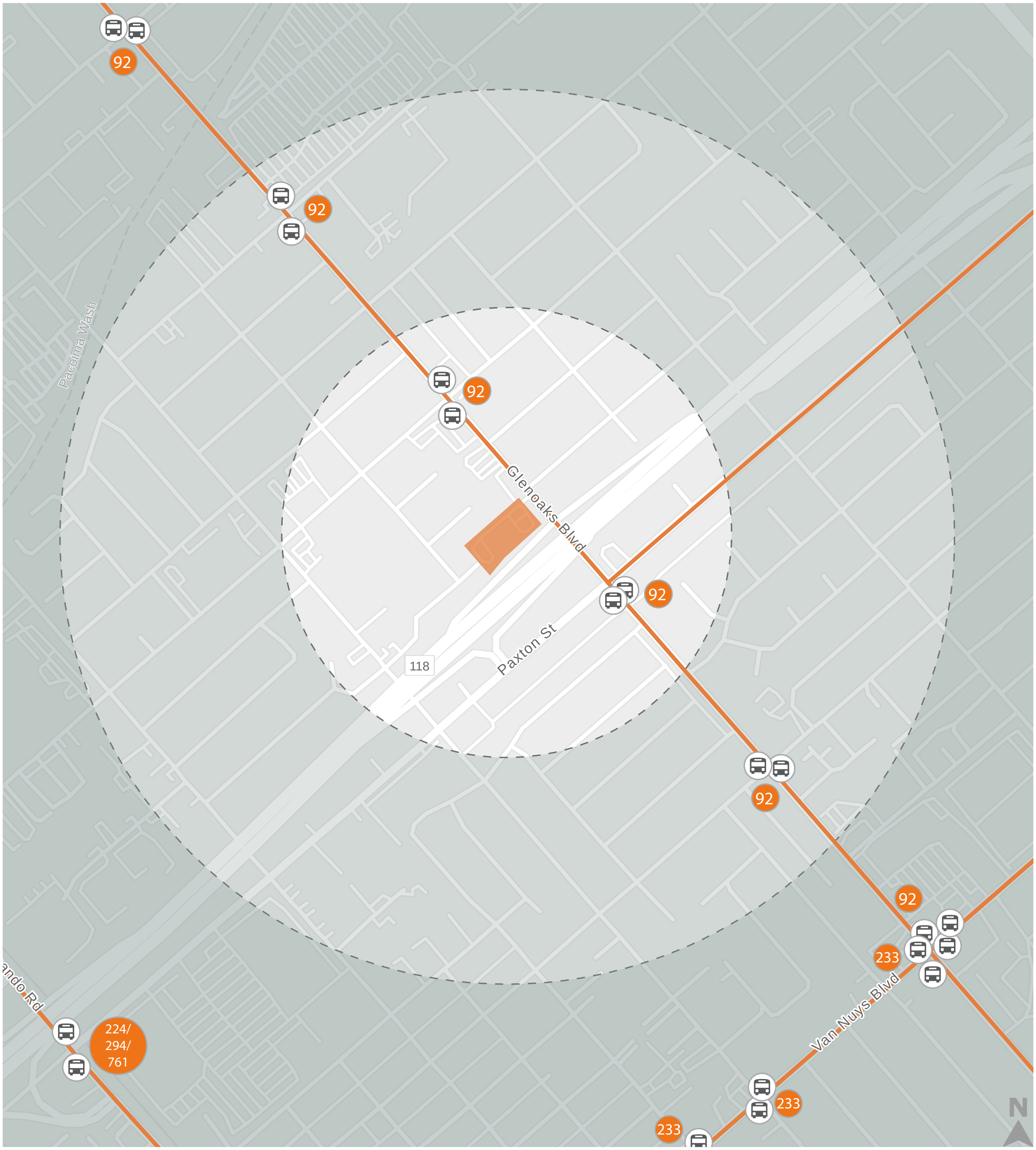
The City's High-Injury Network (HIN) is comprised of streets with the highest concentration of traffic collisions that result in severe injuries and deaths, with an emphasis on those involving people walking and bicycling. As shown in **Figure 4**, the Project study area has four streets that have been identified as part of the HIN: Glenoaks Boulevard, Paxton Street, Herrick Avenue, and Vaughn Street. In the Project area, multiple schools are present, including the Middle School for International Studies and Technology (MIT), Vaughn Street Early Education Center, Vaughn International Studies Academy, Vaughn Pandaland, and Vaughn Next Century Learning Center.

Table 4: Transit Lines and Ridership within a Half-Mile of the Project Site

Line	Description	Peak Hour Headway	FY 2023 Annual Ridership[1]
LA Metro			
92	Downtown LA - Sylmar Station *via Glendale Blvd & Glenoaks Blvd*	20-25 minutes	1,433,725

Notes

1. LA Metro Ridership (Metro Ridership Stats)



Project Site
1/4 mile radius from Project Site
1/2 mile radius from Project Site
Metro Stops (with route #)
LA Metro Routes

Figure 3

Transit Facilities

Table 5: Existing Ped. Amenities - Sidewalk Widths & Crossing Dist.[1]

Street Name	Study Area Extents	Direction	Existing Sidewalk Width (feet)	Average Distance between Marked Crossings (feet)[2]	Street Trees
Glenoaks Boulevard	Del Sur Street Montford Street	North- South	4'-24'	800'	Inconsistent
Fellows Avenue	Vaughn Street Paxton Street	North- South	4'	N/A	✓
De Garmo Avenue	Del Sur Street Eustace Street	North- South	4'-12'	N/A	Inconsistent
Herrick Avenue	Vaughn Street Daventry Street	North- South	4'-12'	600'	Inconsistent
Magee Avenue	- Montford Street	North- South	4'	N/A	✓
Del Sur Street	De Garmo Avenue Glenoaks Boulevard	East- West	4'-6'	N/A	✓
Vaughn Street	Herrick Avenue Fellows Avenue	East- West	4'-12'	900'	Inconsistent
Cornelius Street	De Garmo Avenue -	East- West	4'	N/A	✓
Desmond Street	De Garmo Avenue Borden Avenue	East- West	4'	N/A	✓
Eustace Street	Herrick Avenue Borden Avenue	East- West	4'-8'	N/A	Inconsistent
SR-118	*Herrick Avenue* *Borden Avenue*	*East-* *West*	*N/A*	*N/A*	*N/A*
Paxton Street	Herrick Avenue Fellows Avenue	East- West	4'-15'	1000'	✓
Daventry Street	De Foe Avenue Glenoaks Boulevard	East- West	4'-6'	N/A	✓
Montford Street	De Foe Avenue Glenoaks Boulevard	East- West	4'-6'	N/A	Inconsistent

Notes

1. This inventory was completed using aerial imagery and field visits.
2. Rounded to the nearest 100'.

Source: Fehr & Peers, 2024.

Table 6: Existing Pedestrian Amenities – Intersection Amenities[1]

Intersection	Pedestrian Signals[2]	Pedestrian Button	Crosswalk Type	Curb Ramp Type	Tactile Warning[3]
Glenoaks Boulevard / Del Sur Street	SSSC		All: Unmarked	All: Diagonal	1/2
Glenoaks Boulevard / Vaughn Street	✓	✓	All: Continenal	All: Diagonal	4/4
Glenoaks Boulevard / Desmond Street	SSSC		All: Unmarked	All: Diagonal	0/2
Glenoaks Boulevard / Eustace Street	SSSC		All: Unmarked	All: Diagonal	0/2
Glenoaks Boulevard / SR-118 WB Ramps	✓	✓ (prohibited S leg excluded)	N: Standard E: Standard S: Prohibited W: Unmarked	NE: Directional NW: Diagonal SE: Directional SW: Directional	4/4
Glenoaks Boulevard / Paxton Street	✓	X (Automatic)	All: Ladder	All: Diagonal	0/4
Glenoaks Boulevard / Daventry Street	SSSC		All: Unmarked	All: Diagonal	0/1
Glenoaks Boulevard / Montford Street	SSSC		All: Unmarked	All: Diagonal	0/2
Fellows Ave / Vaughn Street	TWSC		All: Unmarked	***All: none***	N/A
Fellows Ave / Desmond Street	TWSC		All: Unmarked	***All: none***	N/A
Fellows Ave / Eustace Street	AWSC		All: Unmarked	***All: none***	N/A
Fellows Ave / Paxton Street	SSSC		All: Unmarked	All: Diagonal	0/2
Glencrest Drive / Vaughn Street	SSSC		All: Unmarked	All: Diagonal	2/2
De Foe Avenue / Daventry Street	SSSC		All: Unmarked	All: Diagonal	0/2
De Foe Avenue / Montford Street	SSSC		All: Unmarked	All: Diagonal	0/2
De Garmo Avenue / Del Sur Street	TWSC		All: Unmarked	***All: none***	N/A
De Garmo Avenue / Vaughn Street	AWSC		N/S/E: Unmarked W: Yellow Continental	***All: none***	N/A
De Garmo Avenue / Cornelius Street	SSSC		All: Unmarked	***All: none***	N/A

TABLE 6 CONTINUED ON NEXT PAGE

Table 6 (Continued)

Intersection	Pedestrian Signals[2]	Pedestrian Button	Crosswalk Type	Curb Ramp Type	Tactile Warning[3]
De Garmo Avenue / Desmond Street	SSSC		All: Unmarked	NE: Directional ***SE: none***	0/1
De Garmo Avenue / Eustace Street	AWSC		All: Unmarked	***All: none***	N/A
Herrick Avenue / Vaughn Street	AWSC		All: Yellow Continenal	All: Diagonal	4/4
Herrick Avenue / Cornelius Street	SSSC		All: Unmarked	All: Diagonal	0/2
Herrick Avenue / Eustace Street	AWSC		N/E: Yellow Continenal S/W: Unmarked	NE/SE: Diagonal ***NW/SW: none***	0/2

Notes

1. This inventory was completed using aerial imagery and reflects existing conditions.
2. TWSC = Two Way Stop Controlled; AWSC = All Way Stop Controlled; SSSC = Side Street Stop Controlled
3. The number of curb ramps equipped with tactile warnings out of the total number of curb ramps at the intersection.

Source: Fehr & Peers, 2024.

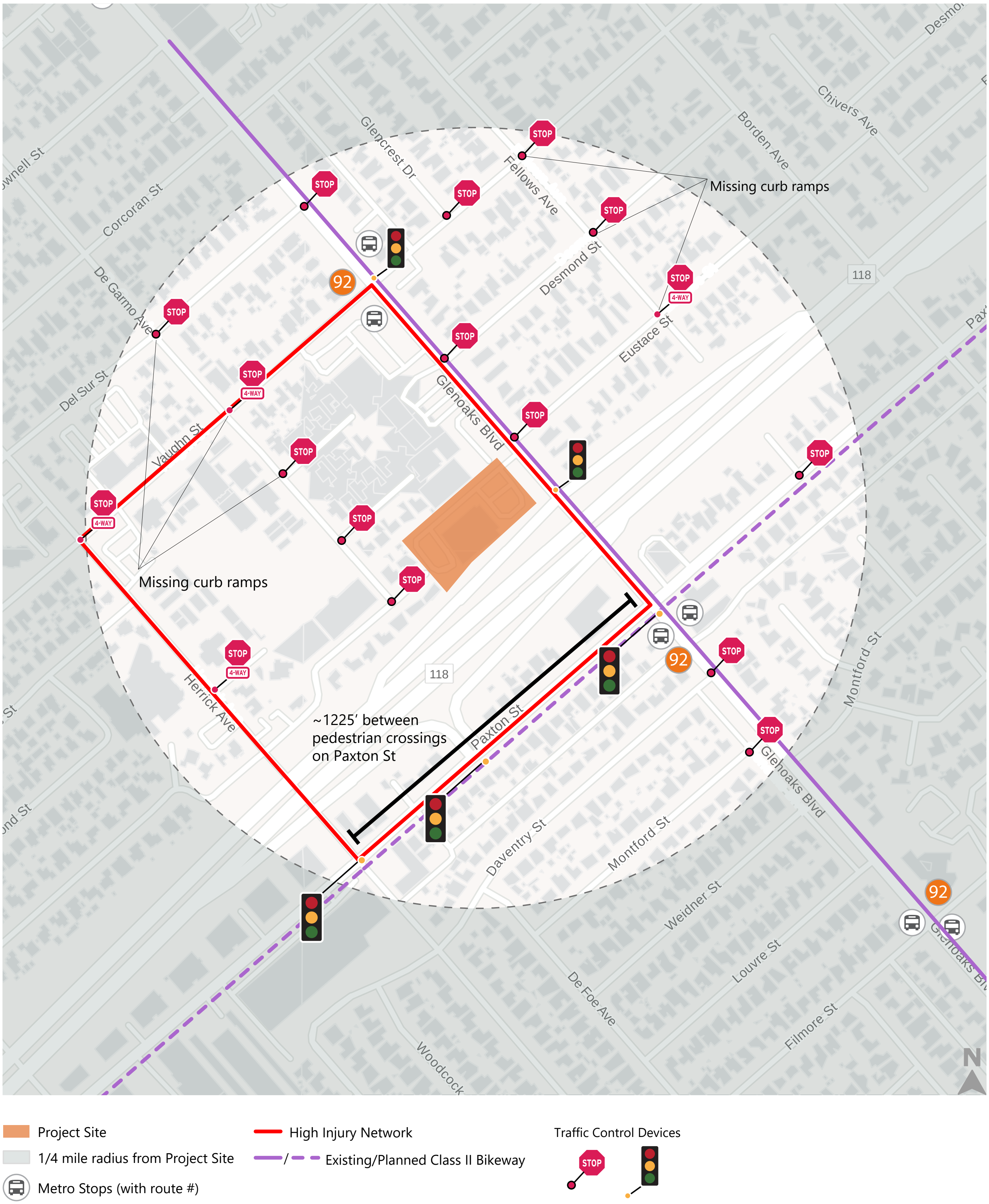
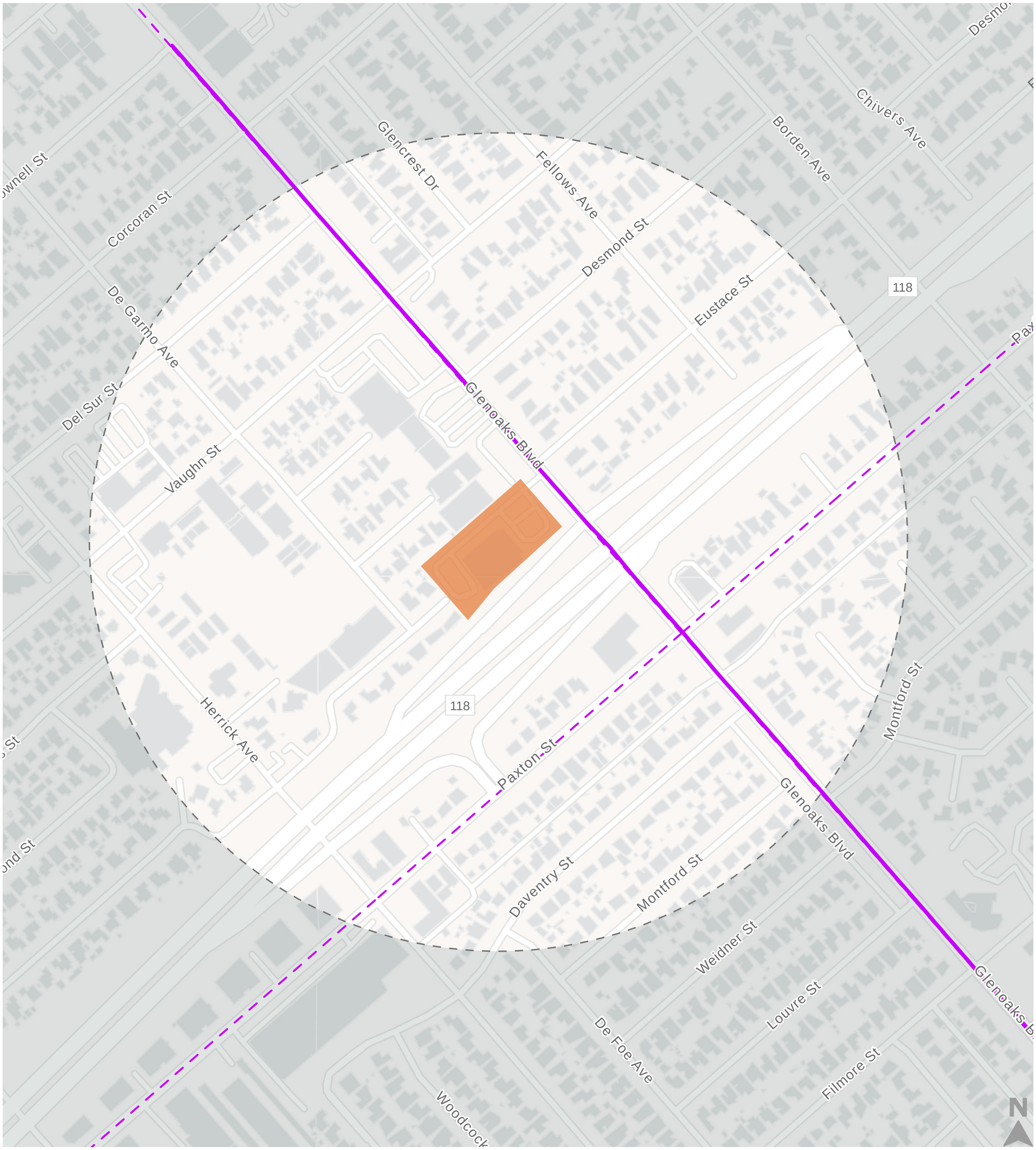


Figure 4

Pedestrian Facilities



Project Site

1/4 mile radius from Project Site

Existing/Planned Class II Bikeway

Figure 5

Existing & Planned Bicycle Facilities

2.2 Cumulative Conditions

This section details the planned transportation improvements and proposed land use developments near the Project that are planned, underway, or anticipated to be completed by the buildout date of the Project.

Transportation Infrastructure Projects

There are several transportation projects planned and/or proposed within and near the Project:

- ***East San Fernando Valley Light Rail Project:*** This LA Metro project would construct a light rail line along Van Nuys Boulevard from Oxnard Street to San Fernando Road (Southern Segment with 11 stations and 6.7 miles of track) and along San Fernando Road from Van Nuys Boulevard to the Sylmar/San Fernando Metrolink Station (Northern Segment with 3 stations and 2.5 miles of track). The Southern Segment is in the pre-construction phase and is forecasted to be completed in 2031. There is currently no timeline for construction for the Northern Segment.
- ***Mobility Plan 2035*****:** This document identifies corridors proposed to receive improved bicycle, pedestrian, and vehicle infrastructure improvements. These facilities are proposed on the following streets:
    - **Moderate Transit Enhanced Streets** are planned on Glenoaks Boulevard south of Arroyo Street.
    - **Neighborhood Enhanced Network Tier 2 Streets** are planned on Herrick Avenue south of Brownell Street.
    - **Bicycle Lane Network Tier 3 Lanes** are planned on Paxton Street (Tier 2 lanes on Glenoaks Boulevard south of Arroyo Street are already implemented).
    - A **Pedestrian Enhanced District** is planned on Glenoaks Boulevard south of Filmore Street.

Figure 5 shows the planned bicycle improvements in the study area per the *Mobility Plan 203*5.

Related Projects

Related projects are developments that are planned, underway, or anticipated to be completed in the study area of the Project Site prior to the buildout date of the Project. The list of related projects within a half-mile radius of the Project was prepared based on data from LADOT[2] and the known development landscape of the area. **Table 7** includes the single related project that was identified and its corresponding land use, size, and trip generation assumed to be in place by Year 2027. The location of the related project is illustrated in **Figure 6**.

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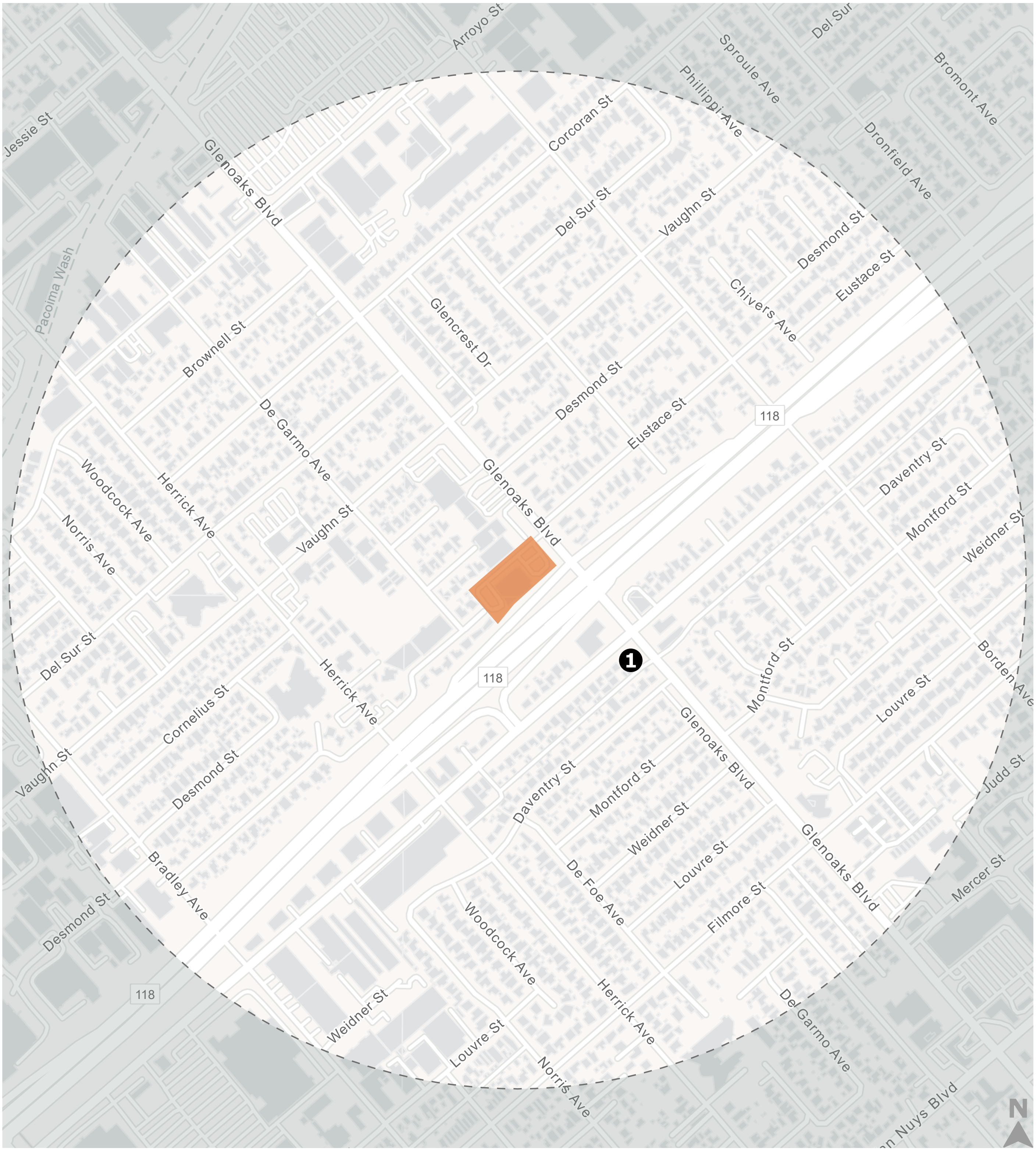
[2] According to TAG, a half-mile radius from the Project Site was used to determine the related projects list in this TA instead of a quarter-mile radius from the farthest outlying study intersection since the half-mile radius is the farther of the two radius measurements.

Table 7: Related Projects

ID	Project Title	Project Address	Land Use	Size	Trip Generation Estimates [a]					
					AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Starbucks Drive-Thru Only	13100 Paxton Street	Retail	.9 ksf	67	68	135	17	16	33

ksf = one thousand square feet
[a] Based on information provided by LADOT on January 2, 2024.



Project Site

Related Projects

1/2 mile radius from Project Site

Figure 6

Related Projects

3. CEQA Transportation Assessment

3.1 Plans, Programs, Ordinances, and Policies Review

A review was conducted to determine whether the Project conflicts with a transportation-related City plan, program, ordinance, or policy that was adopted to protect the environment.

> **Threshold T-1:** Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities?

Under CEQA, a project is considered to not conflict with an applicable plan if it is consistent with the overall intent of the plan and would not preclude the attainment of its primary goals. A project does not need to be in perfect conformity with each and every policy. Any conflict with an applicable policy, plan, or regulation is only a significant impact under CEQA if the policy, plan, or regulation was adopted for the purpose of avoiding or mitigating an environmental effect and if the conflict itself would result in a direct physical impact on the environment. This evaluation was conducted in alignment with CEQA guidelines and the TAG, and includes a review of the following City documents:

- ***City of Los Angeles General Plan*** is a comprehensive policy document that informs future land use decisions. It is comprised of several elements that provide guidance for how land is used and how the City allocates its resources.
  - The *Mobility Plan 2035 (2016)*, adopted under the City's General Plan, is the Transportation Element of the General Plan. It incorporates "complete streets" principles and lays the policy foundation for the operation and design of streets and public right-of-way.
  - *The Plan for a Healthy Los Angeles (2015)* is an element of the City's General Plan and lays the foundation to create healthier communities for all Angelenos. The Plan "provides a high-level policy vision, along with measurable objectives and implementation programs to elevate health and environmental justice as a priority for the City's future growth and development."
- ***Citywide Design Guidelines (2019)*** establishes ten guidelines to carry out the common design objectives laid out in the City's General Plan Framework Element and 35 Community Plans. The guidelines are organized around one of three design approaches: Pedestrian-First Design, 360 Degree Design, and Climate-Adopted Design.
- ***Arleta-Pacoima Community Plan (2004)*** is one of 35 Community Plans in the City that establish policies and programs that inform the framework for local land use, circulation, and service systems within the selected community plan area. The Arleta-Pacoima Community Plan prioritizes mixed-use design, along with affordable housing units, which coincide with the City's goals of providing a variety of housing choices. The plan includes several transportation objectives, including leveraging the future rail transit system for development while minimizing negative impacts, maximizing the use of Whiteman Airport, and enhancing multimodal connections for efficient transfers and

additional transit lines, promoting alternatives to automobiles such as rail, bus, bicycle, and walking for both work and non-work travel.

- ***Municipal Code of the City of Los Angeles*** codifies the regulatory and penal ordinances of the City. The current Sixth Edition assists City officials, departments, and other governmental agencies in their functions, and "will serve the people as the official source of information regarding the regulations enacted by the City of Los Angeles for the preservation of the public peace, health and safety."[3]
- ***Vision Zero Los Angeles (2017)***[4] is a plan that strives to eliminate traffic-related deaths in Los Angeles by 2025 through multiple strategies such as modifying streets to better serve vulnerable road users.

Conflicts with Relevant Plans, Programs, Ordinances, and Policies

Table 8 provides a discussion of the Project's potential conflicts with the plans described above. **Appendix D** provides a detailed evaluation of the Project's potential conflicts regarding specific questions presented in the TAG. As can be seen in Table 8 and in the detailed evaluation in **Appendix D**, the Project does not conflict with the various regional and local plans, programs, ordinances, and policies related to transportation.

[3] *City of Los Angeles Municipal Code*, 6th Edition, effective September 2002.
[4] *Vision Zero Los Angeles 2015-2025 Action Plan*, effective January 2017.

Table 8: Conflict with Plans, Programs, Ordinances, and Policies Review

Plan, Program, Ordinance, or Policy	Conflict Review
City of Los Angeles Mobility Plan 2035	The Project's proposed mixed-use design supports the policies of the *Mobility Plan 2035* by considering the strong link between land use and transportation. Glenoaks Boulevard at the northern boundary of the Project Site is part of the Transit Enhanced Network and Herrick Avenue is listed in the Neighborhood Enhanced Network. The Project would not conflict with the implementation of future projects in the public right-of-way on these networks.
City of Los Angeles Transportation Demand Management (TDM) Program	Although the Project does not have a significant VMT impact, the Project is required to comply with the City's TDM Program because its non-residential component exceeds 25,000 square feet of gross floor area. The Project will develop a plan in alignment with that ordinance.
Citywide Design Guidelines	The Project would not conflict with the circulation components of the *Citywide Design Guidelines*. The guidelines call for incorporating vehicular access such that it does not discourage and/or inhibit the pedestrian experience and promoting a safe, comfortable, and accessible pedestrian experience.
Arleta-Pacoima Community Plan (1996)	The Project does not conflict with the transportation components of the *Arleta-Pacoima Community Plan*. The Project's prioritization of mixed-use design, along with affordable housing units, coincide with the City's goals of providing a variety of housing choices. Additionally, a lack of open space at apartment complexes was listed as a reoccuring residential issue, which is addressed in this plan through the inclusion of a dog park.
Municipal Code of the City of Los Angeles	The Project and its features do not conflict with the City's Municipal Code. The Project would be in accordance with code requirements such as providing bicycle parking and providing adequate sight distance. In addition, at least 30 percent of the Project's parking spaces would be capable of supporting future electric vehicle supply equipment, and 10 percent of spaces would have EV charging.
Plan for a Healthy Los Angeles	The Project does not conflict with the *Plan for a Healthy Los Angeles*. It strives to reduce vehicle miles traveled and greenhouse gas emissions by providing mixed use development with a variety of land uses in a neighborhood with high walkability and transit access.
Vision Zero Los Angeles	The Project does not conflict with the goals and objectives set forth in *Vision Zero Los Angeles* and would not conflict with the implementation of future Vision Zero projects in the public right-of-way. The project would not modify the existing Class II bike lane on Glenoaks Boulevard.

Cumulative Analysis

The nearest related project to the Project Site is a Starbucks drive-thru located at 13100 Paxton Street, approximately 0.1-mile south of the Project Site. A cumulative impact could occur if the Project as well as related projects located on the same block were to preclude the City's ability to implement relevant plans, programs, ordinances, and policies. Since this project is not on the same block as the Project, the Project would have a less-than-significant cumulative impact. Accordingly, the Project would not contribute to significant cumulative impacts in conflict with transportation policies and standards and thus, would not conflict with City transportation plans, programs, ordinances, and policies.

Conclusion and Recommended Actions

The Project features, location, and design generally support multimodal transportation options and would not conflict with City plans, policies, ordinances, and programs put in place to protect the environment. Thus, the Project would result in a less-than-significant impact, and therefore there are no mitigations required.

3.2 Vehicle Miles Traveled Analysis

In accordance with the Governor's Office of Planning and Research (OPR) CEQA guidance[5] as well as *City of Los Angeles Mobility Plan 2035* goals and objectives, the City has set the following significance criteria for transportation impacts based on vehicle miles traveled for land use projects and plans.

> **Threshold T-2.1:** For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)? The intent of this threshold is to assess whether a land use project or plan causes substantial vehicle miles traveled.

The Project's impact on vehicle miles traveled was assessed utilizing LADOT's VMT Calculator Version 1.4. The VMT Calculator considers a project's land uses, proposed transportation demand management strategies, and location within the City to estimate the project's impact on vehicle miles traveled, assessed against the City's established impact criteria.

Impact Criteria

The TAG establishes the City's VMT impact criteria, which states that a land use project may have a potential significant impact if the project meets one or more of the following criteria:

- For residential projects, the project would generate daily household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which the project is located. This criterion was used for the residential component of the Project.
- For office projects, the project would generate daily work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC in which the project is located. The Project does not have an office component.
- For regional serving projects including retail projects, entertainment projects, and/or event centers, the project would result in a net increase in VMT. Retail projects less than 50,000 square feet in size are considered local serving. New retails uses greater than 50,000 square feet may also be considered local serving, if an applicant provides documentation that most of the vehicle trips would be originating from the project area. This criterion was used for the supermarket component of the Project.

For mixed-use projects, the project VMT impact should be considered significant if, after taking credit for internal capture, the project exceeds the impact criteria for one or more of a project's particular land uses, with each land use evaluated separately. **Table 9** outlines the City's VMT impact criteria based on these guidelines. The Project is in the North Valley APC, which has a daily household VMT per capita significance threshold of **9.2** and a daily work VMT per employee significance threshold of **15.0**.

[5] *Technical Advisory on Evaluation Transportation Impacts in CEQA*, December 2018.

Table 9: City of Los Angeles VMT Impact Criteria (15% Below APC Average)

Area Planning Commission	Daily Household VMT per Capita	Daily Work VMT per Employee
Central	6.0	7.6
East Los Angeles	7.2	12.7
Harbor	9.2	12.3
North Valley	**9.2**	**15.0**
South Los Angeles	6.0	11.6
South Valley	9.4	11.6
West Los Angeles	7.4	11.1

Source: LADOT *Transportation Assessment Guidelines* , 2022.

Per the TAG, a project could have a significant cumulative impact on VMT if the project has both a significant project-level impact as determined above and conflicts with the Southern California Association of Governments'[6] (SCAG) Regional Transportation Plan/Sustainable Communities Strategy[7] (2020-2045 RTP/SCS) in terms of development location, density, and intensity.

Impact Analysis

The Project's land uses are outlined in **Table 10**. In alignment with TAG guidance for mixed-use projects, both the commercial/retail and residential land uses are subject to this threshold. Since the Project's commercial component is well below the 50,000-square feet threshold, it is presumed to be local-serving and to have a less-than-significant impact on VMT. The estimated daily household VMT per capita for the Project would be **8.3** and is presented in **Table 11**. The Project's estimated total daily VMT would be **32,009** and is shown in **Appendix E.**

The Project's estimated daily household VMT per capita is below the threshold of significance for the North Valley APC; therefore, the Project would not have a significant VMT impact.

Cumulative Impacts

Consistent with the TAG, the Project was reviewed for consistency with the 2020-2045 RTP/SCS. The 2020-2045 RTP/SCS is a regional plan that demonstrates compliance with air quality conformity requires and greenhouse gas (GHG) reduction targets. Projects and land use plans that fall under the City's efficiency-based impact thresholds for VMT are already shown to align with the long-term VMT and GHG reduction goals of the 2020-2045 RTP/SCS. Given the Project's location in a dense, urban area and its provision of both housing units and a supermarket, the Project would not conflict with the applicable goals and objectives of the 2020-2045 RTP/SCS. The Project proposes adding housing units in Los Angeles, which has a shortage of available housing. Since the Project would not have a significant project-level VMT impact, therefore, the Project's cumulative impact on VMT would be less than significant.

Conclusion and Recommended Actions

The analysis in this report demonstrates that the Project would result in a less-than-significant impact on VMT and no mitigation measures would be required. This conclusion is based on research and substantial evidence that infill developments tend to generate fewer overall vehicle trips, and those vehicle trips tend to be shorter than if the Project were built in a less dense area with less access to multimodal travel options, resulting in the Project's VMT being below the thresholds of significance. **Appendix E** contains additional information about the inputs and supporting documentation for the VMT analysis.

[6] SCAG is the nation's largest metropolitan planning organization. Its primary purpose is to research and produce plans for transportation, growth management, hazardous waste management, and air quality.

[7] The RTP/SCS is a regional plan that demonstrates compliance with air quality conformity requirements and emissions reductions targets. It provides a comprehensive look at future transportation needs and maps out how the region will integrate transportation and land use. The latest update is *Connect SoCal* (2020-2045 RTP/SCS) adopted by the SCAG Regional Council in 2020.

Table 10: Project Land Uses

Proposed Land Use	Proposed Land Use Size
Market Rate Multi-Family Housing	218 DU
Income-Restricted Housing	28 DU
Supermarket	28,881 sf

Table 11: Project Household VMT per Capita

Proposed Project Daily Household VMT per Capita	Threshold of Significance[2]	Significant VMT Impact?
8.3	9.2	No

Notes

1. Project Daily Household VMT per Capita estimated using the VMT Calculator Version 1.4.

2. Threshold of significance for residential land use projects in the North Valley APC.

3.3 Geometric Design Feature Review

The Project's preliminary site plan was reviewed for potential geometric design hazards due to the configuration of Project automobile, bicycle, and pedestrian access points. The TAG lists the following threshold of significance for proposed land use projects:

> **Threshold T-3:** 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)?

Impact Analysis

Automobile Access

There is currently one driveway serving the Project Site along Glenoaks Boulevard. The Project proposes to shift the existing vehicular access point northwest to the property line. Below is a description of the Project's proposed driveway:

- **Access A:** The Project proposes a left- and right-in/right-out only driveway off of Glenoaks Boulevard at the northeastern end of the Site. Outbound left-turns from this driveway would not be permitted.

The Project's vehicular driveway would be designed to City standards and would provide adequate sight distance. It would not require the removal or relocation of existing public transit stops. Glenoaks Boulevard along the Project Site is part of the designated HIN, however, the number of Project Site driveways along Glenoaks Boulevard would not be increased. The Project would not increase hazards by potentially precluding the ability for the City to implement safety improvements along HIN roadways.

Pedestrian Access

Pedestrian access to the Project would be provided via street-facing entrances along Glenoaks Boulevard. This would allow easy access to the public right-of-way and other destinations. The Project's pedestrian access locations would be designed to the City standards and would not increase hazards by introducing entrances that would cause visibility issues or conflicts between vehicles and pedestrians.

Bicycle and Micromobility Access

Residents, patrons, and employees arriving to the Project Site by bicycle, scooter, or other non-motorized forms of transportation would have the same access opportunities to the Project Site via the pedestrian entrances. 28 short-term bicycle parking spaces would be provided adjacent to the building at the corner of Glenoaks Boulevard and the SR-118 westbound on-ramp. 264 long-term bicycle parking spaces would also be provided for the residential and commercial uses via elevator connections on-site. Therefore, the Project would not increase hazards by introducing bicyclist entrances that would cause visibility issues or conflicts between vehicles and bicyclists.

Conclusion and Recommended Actions

As described above, the Project's design does not include hazardous geometric design features. The roadways adjacent to the Project Site are part of the urban roadway network and contain no sharp curves and the development of the Project would not result in roadway alterations such that hazards would be introduced adjacent to the Project Site. In addition, the proposed residential and supermarket uses would not conflict with other properties near the Project Site, and would not introduce hazards due to incompatible uses. Thus, the Project would result in a less-than-significant impact to hazards due to a geometric design feature or incompatible uses. **Appendix B** contains more detailed responses to the TAG evaluation questions that support this conclusion.

3.4 Freeway Safety Analysis

The TAG provides guidance on freeway safety analysis for land use projects that are required to prepare a transportation assessment.[8] The freeway safety analysis evaluates a proposed project's potential to cause or lengthen a forecasted off-ramp queue on the freeway mainline that could lead to a potential safety impact due to speed differentials between vehicles exiting the freeway off-ramps and vehicles traveling on the freeway mainline.

The TAG requires analysis of freeway off-ramps where a proposed project adds 25 or more trips in either the morning or afternoon peak hour to be studied for potential queuing impacts. If the proposed project is not projected to add 25 or more peak hour trips at any freeway off-ramps, then a freeway ramp analysis is not required. Chapter 4 of this TA provides a comprehensive Project trip generation and distribution analysis. The Project is projected to add 25 or more trips to the following freeway off-ramp:

- SR-118 Eastbound Off-Ramp at Paxton Street (PM peak hour)

In addition, the SR-118 Westbound Off-ramp at Glenoaks Boulevard was studied for potential queuing impacts.

Methodology

Because a freeway ramp analysis is required, the guidance provides the following steps to determine if the proposed project may constitute a potential safety impact under CEQA.

- For the identified freeway off-ramps, a queuing study is required that evaluates the adequacy of storage lengths with the 95^{th} percentile queue and 100% of the storage length on each lane of the ramp from the stop line to the gore point. When an auxiliary lane is present, 50% of the length of the auxiliary lane is added to the ramp storage area.
- If Project traffic is expected to cause or add to a queue extending onto the freeway mainline by less than two car lengths, the proposed project would cause a less-than-significant safety impact. If the queue is already extending or projected to extend onto the freeway mainline, and the addition of traffic generated by the Project would increase the overflow onto the mainline lanes by less than two car lengths, the project would cause a less-than-significant safety impact.

[8] LADOT *TAG*, August 2022

- If the Project adds two or more car lengths to the ramp backup that extends on the freeway mainline, then the location must be tested for safety issues which includes a test for speed differential between the off-ramp queue and the mainline of the freeway during the particular peak hour. If the speed differential between the mainline lane and the ramp is below 30 mph, the project would be considered to cause a less-than-significant safety impact. If the speed differential is 30 mph or more, then there is a potential safety issue. The Caltrans Performance Measurement System (PeMS) data should be used to identify freeway operating speed(s) during the peak hour being analyzed. If reliable PeMS data are not available at the subject location, other sources of speed data including location-based services data from available sources could be used.
- If the speed differential is 30 mph or more, which may result in a potential safety issue, the guidance suggests a proposed project should consider the following preferred corrective measures to offset a potential safety issue:
    - Transportation demand management program(s) to reduce the project's trip generation,
    - Investments to active transportation infrastructure, or transit system amenities (or expansion) to reduce the project's trip generation, and/or
    - Potential operational change(s) to the ramp terminal operations including, but not limited to, lane reassignment, traffic signalization, signal phasing or timing modifications, etc. This option requires coordination with Caltrans and LADOT to assess feasibility and for approval of the proposed measure(s).

A physical change to the ramp itself (addition of auxiliary lane, ramp widening, etc.) may be considered. However, this change would have to demonstrate substantial safety benefits, not be a VMT-inducing improvement, and not result in other environmental issues. If the cost of the physical change to the ramp is substantial, then a fair-share contribution to the improvement may be required if necessary requirements are met, including, but not limited to, Caltrans defining the improvement cost, and opening a Project File/Project Account to accept a financial contribution for the improvement.

Impact Assessment

The Project's impact on freeway safety was assessed through an intersection operations analysis conducted with Synchro 12 software for the following scenarios[9]:

- **Opening Year (2027) No Project:** Based on the City travel demand model and at the direction of LADOT, an ambient growth factor of 1.7 percent per year was applied to the existing base year traffic volumes to reflect the effects of regional growth and development. This adjustment was applied to the Existing (2024) traffic volume data to reflect the effect of ambient growth by the year 2027. Additionally, Opening Year traffic forecasts include the effects of known related projects expected to be implemented in the vicinity of the Project Site prior to the buildout date of the Project.

[9] Development of these forecast scenarios is described in greater detail in Section 4.2 of this report.

- **Opening Year (2027) Plus Project:** Project trip estimates were added to the Opening Year No Project forecasts.

Per the guidance, the adequacy of the existing and future storage lengths was evaluated based on the 95th percentile queue length found in each scenario. **Table 12** show the queue lengths and analysis results for both SR-118 off-ramp intersections under the Opening Year and Opening Year Plus Project scenarios.

Based on information shown in **Table 12**, the estimated off-ramp queues at both SR-118 off-ramp intersections are not projected to exceed ramp capacity in the Opening Year and Opening Year Plus Project scenarios during the AM and PM peak hours. The Project is also not projected to add more than two car lengths (assuming an average queue storage length of 25 feet per car) to off-ramp queues during either peak hour. Therefore, the Project is not projected to cause a significant safety impact to either SR-118 Eastbound Off-Ramp at Paxton Street or the SR-118 Westbound Off-ramp at Glenoaks Boulevard and no further analysis is required.

Detailed queue calculations are provided in **Appendix F**. Traffic counts are provided in **Appendix G**.

Table 12: Peak-Hour Off-Ramp 95th Percentile Queue Lengths in Opening Year (2027) Conditions[1]

Off-Ramp	Intersection Control	Turn Movement	Storage Length	Opening Year (2027) No Project			Opening Year (2027) Plus Project			
				AM Peak	PM Peak	Queue Exceeds Storage?	AM Peak	PM Peak	Queue Exceeds Storage?	Significant Impact?
SR-118 EB at Paxton St	Signal	WBL WBL/T/R	1400	450	275	No	450	275	No	No
SR-118 WB at Glenoaks Blvd	Signal	SBL SBL/R	1550	450	400	No	450	425	No	No

Notes

1. Queue lengths are outputs derived from the Opening Year Conditions Synchro peak hour models developed for this Project. The 95th percentile queue length is a conservative assumption commonly employed for intersection design considerations and does not represent the typical queue length an average driver would experience.

2. Movement acronyms represent the cardinal direction (first two letters) and the turn movement (last letter). For example, NBL=Northbound-left movement, NBR =Northbound-right movement, and NBT = Northbound-through movement. Shared indicates that multiple movements are allowed from a single lane.

3. The storage length shown (measured in feet based on online aerial photographs) is the sum of each lane's storage lengths. Ramp storage lengths were determined assuming that 100% of the storage length on each lane of the ramp from the stop line to the gore point could be used. When an auxiliary lane was present, 50% of the length of the auxiliary lane was added to the ramp storage length.

4. Storage lengths and queues are shown in feet and rounded to the 25 feet. Queues represent the sum of each lane's queues.

4. Non-CEQA Transportation Assessment

The purpose of the non-CEQA transportation assessment required in the TAG is to promote orderly development, evaluate and address transportation-system deficiencies, and promote public safety and the general welfare by ensuring that development projects are properly related to their sites, surrounding properties, and traffic circulation.

4.1 Pedestrian, Bicycle, and Transit Access

The pedestrian, bicycle, and transit facilities assessment is intended to determine a project's potential effects on pedestrian, bicycle, and transit facilities in the vicinity of a proposed project based on an evaluation of physical or demand-based considerations that would affect the experience of people utilizing the multimodal transportation network. **Figure 7**, **Figure 4**, **Table 5**, and **Table 6** provide a map of pedestrian destinations and inventory of the pedestrian facilities (i.e., crosswalks and curb ramps) within 1,320 feet of the edge of the Project Site.

As shown in **Table 6**, curb ramps with tactile warnings and/or marked crosswalks are not present at some of the nearby unsignalized intersections. At signalized intersections, traffic signals are either programmed to provide walk phases during every signal cycle or push buttons are provided. Curb ramps are missing at several intersections, particularly along Fellows Avenue and De Garmo Avenue.

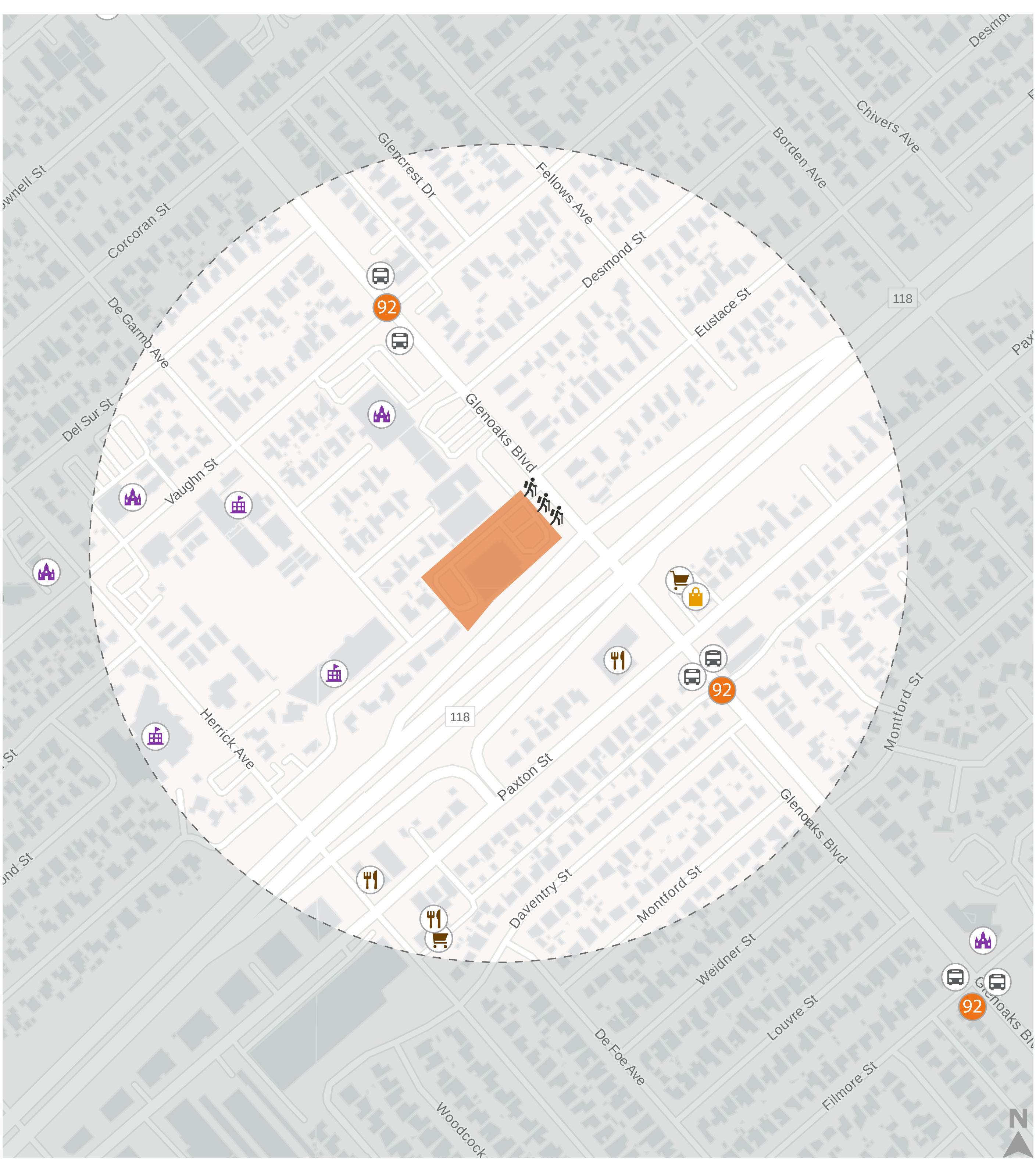
The following checklist from the TAG was reviewed to evaluate whether direct or indirect Project effects would lead to removal, modification, or degradation of pedestrian, bicycle, or transit facilities:

- Removal or degradation of existing sidewalks, crosswalks, pedestrian refuge islands, and/or curb extensions/bulbouts.
    - No, the Project would not remove or degrade existing pedestrian facilities because the Project would retain the existing sidewalk widths adjacent to the Project Site consistent with the right-of-way width requirements in *Mobility Plan 203*5.
- Removal or degradation of existing bikeways and/or supporting facilities (e.g., bikeshare stations, on-street bike racks/parking, bike corrals, etc.)
    - No, the Project would not remove or degrade the existing bikeways and/or supporting facilities. In the Project study area, the bicycle facilities are mainly comprised of Class II bikeways, including Glenoaks Boulevard between Brownell Street and Pierce Street. The Project would provide 264 long-term bicycle parking spaces and 28 short-term bicycle parking spaces for residents, customers or visitors. The Project would not preclude the City from implementing any planned bicycle facilities.

- Removal or degradation of existing transit and/or local circulator facilities including stop, bench, shelter, concrete pad, bus lane, or other amenities
  - No, the Project would not degrade existing transit and/or local circulator facilities. The Project Site is directly served by LA Metro Route 92. LA Metro Route 92 operates on 20-25 minute headways during weekday peak periods.
- Removal of other existing transportation system elements supporting sustainable mobility
  - No, the Project does not propose to remove sustainable transportation elements. The Project encourages the development of a sustainable transportation system with its mixed-use character and provision of bicycle parking. The Project will also provide 14 parking spaces with EV charging stations and 65 EV-ready parking spaces in the residential parking area, and 3 parking spaces with EV charging stations and 15 EV-ready parking spaces in the commercial parking area.
- Increase street crossing distance for pedestrians; increase in number of travel/turning lanes; increase in turning radius or turning speeds.
  - No, the Project does not propose any changes to the public right-of-way that would increase street crossing distance for pedestrians, increase the number of travel lanes, or increase turning speeds.
- Removal, degradation, or narrowing of an existing sidewalk, path, crossing, or pedestrian access
  - No, the Project does not propose to remove, degrade, or narrow sidewalks or limit pedestrian access paths. The Project would maintain the existing sidewalk widths within and adjacent to the Project Site consistent with the right-of-way width requirements in *Mobility Plan 203*5.
- Removal or narrowing of existing sidewalk-street buffering elements (e.g., curb extension, parkway, planting strip, street trees, etc.)
  - No, the Project does not propose the removal or narrowing of existing sidewalk-street buffering elements. The Project also does not propose to remove any non-protected street trees located in the right-of-way adjacent to the Project Site.
- Increase in pedestrian or vehicle volume, and thereby increase the need or attraction to cross a street at unmarked pedestrian crossings or unsignalized or uncontrolled intersections where a crossing is not available without significant rerouting.
  - Yes, the Project is projected to increase pedestrian and vehicle volumes at intersections surrounding the Project Site due to the increase in residents, visitors, and workers. However, signalized and marked crosswalks are available to access other destinations in the area. Therefore, the Project would not increase the need or attraction to cross streets at unmarked or uncontrolled pedestrian crossings.

- Result in new pedestrian demand between project site entries/exits and major destinations or transit stops expected to serve the development where there are missing pedestrian facilities (e.g., gaps in the sidewalk network) or substandard pedestrian facilities (e.g., narrow or uneven sidewalks, no crosswalks at intersections or mid-block, no marked crossing, or push button crossing rather than actuated, etc.).
    - There are curb ramps and marked crosswalks at the signalized intersections along Glenoaks Boulevard in the vicinity of the Project, providing access to the bus stops at the Vaughn Street and Paxton Street intersections. There are unmarked crossings at most minor street intersections in nearby residential areas that may be used by pedestrians from the Project. However, most of these intersections connect lower-volume/local streets. Missing curb ramps along sections of Fellows Avenue and De Garmo Avenue are more distant from the Project site.
- Increase transit demand at bus stops that lack marked crossings, with insufficient sidewalks, or are in isolated, unshaded, or unlit areas.
    - The Project will increase transit demand at bus stops near the Project Site along Glenoaks Boulevard at the Vaughn Street and Paxton Street intersections. These bus stops are served by signalized crosswalks and sidewalks. Three of the four bus stops do not provide dedicated lighting or shade but are adjacent to other active uses or intersections with lighting.

No Project-related deficiencies or recommended actions were identified in this analysis.



Project Site

1/4 mile radius from Project Site

Site Pedestrian Entrance

Metro Stops (with route #)

Places of Worship

Convenience Store

Restaurant

School

Market/Grocery Store

Figure 7

Pedestrian Attractors Inventory

4.2 Project Access, Safety, and Circulation Evaluation

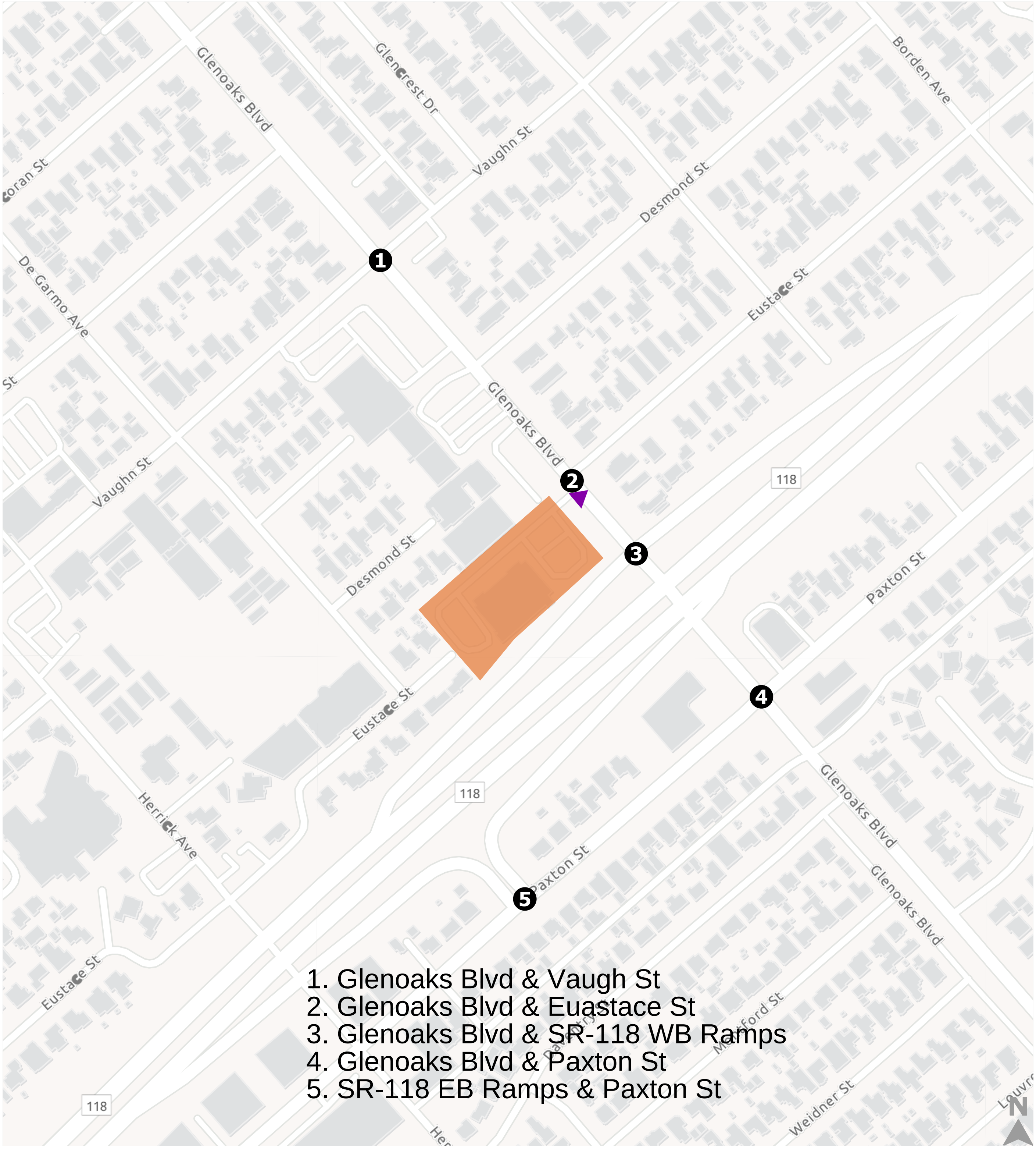
This section documents the peak hour intersection analysis conducted based on the screening criteria and trip threshold for intersection analyses provided in the TAG.

Study Analysis Locations

The study locations were selected for analysis based on guidance from the TAG, which indicates that intersections on either end of the Project's block, unsignalized intersections adjacent to the Project or integral to Project access, and signalized intersections in proximity to the Project Site through which 100 or more Project-generated trips would travel should be analyzed. The study intersections for this analysis are illustrated in **Figure 8** and listed in **Table 12**.

Level of Service Methodology

Per the TAG, this analysis uses the *Highway Capacity Manual, 7th Edition* (HCM) (Transportation Research Board, 2022) methodology to evaluate the operation of Project driveways and nearby intersections when possible. Two study intersections were evaluated using HCM 2000 due to shared lane geometries incompatible with the HCM 7th methodology. The LOS analysis was performed using the Synchro 12 software program. Synchro calculates vehicle delay, 95th percentile turning movement queues, and level of service (LOS) at intersections based on procedures outlined in the HCM. This methodology was used to determine the intersection delay in seconds, corresponding level of service (LOS), and queuing at the signalized, unsignalized, and driveway study intersections. **Table 13** presents the definitions for LOS.



Project Site
Study Intersections
Project Driveway

Figure 8

Study Intersections

Table 13: Study Intersections/Driveways

Intersection Number	North/South	East/West
1	Glenoaks Boulevard	Vaughn Street
2	Glenoaks Boulevard	Eustace Street
3	Glenoaks Boulevard	SR-118 WB Ramps
4	Glenoaks Boulevard	Paxton Street
5	SR-118 EB Ramps	Paxton Street
Driveway ID	**North/South**	**East/West**
A	Glenoaks Boulevard	Driveway A

Table 14: Level of Service Defintions for Intersections (HCM 6 Methodology)

Level of Service	Average Stopped Delay per Vehicle (seconds) [Unsignalized]	Average Stopped Delay per Vehicle (seconds) [Signalized]	Definition
A	<u><</u>10	<u><</u>10	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>10 and <u><</u>15	>10 and <u><</u>20	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles
C	> 15.0 and <u><</u> 25.0	>20 and <u><</u>35	GOOD. Occasionally drivers may have to wait through more than one red light; backups develop behind turning vehicles.
D	> 25.0 and <u><</u> 35.0	>35 and <u><</u>55	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volumes periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 35.0 and <u><</u> 50.0	>55 and <u><</u>80	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>50	>80	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with increasing queue lengths.

Source: *Highway Capacity Manual, 6th Edition,* Transportation Research Board, 2016.

Analysis Scenarios

Three scenarios were analyzed, each under weekday AM and PM peak hour conditions. The three scenarios are the following:

- **Existing (2024) Conditions:** Intersection turning movement counts were obtained for the study area and LOS was calculated to determine Existing conditions.
- **Opening Year (2027) No Project:** Based on the City's travel demand model and with the concurrence of LADOT, it was established that an ambient growth rate of 1.7% per year should be applied to adjust the Existing traffic volumes to reflect the effects of regional growth and development. This adjustment was applied to the Existing (2024) traffic volume data to reflect the effect of ambient growth by the year 2027. Additionally, Opening Year traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the study area of the Project Site prior to the buildout date of the Project.
- **Opening Year (2027) Plus Project:** Project trip estimates were added to the Opening Year No Project forecasts.

Existing Traffic Conditions

Existing Traffic Volumes

New weekday AM and PM peak hour turning movement counts at the study intersections were collected in the Spring of 2024, when all local schools were in session. The COVID-19 Pandemic has resulted in societal changes and a "new normal" that caused changes in travel behavior and traffic volumes. Since 2021, pandemic-related shutdowns and government mandates have ended, and local schools and a majority of the workforce have returned to in-person environments. While further unknown changes in traffic volumes could still occur with the passage of time, 2024 offers a relatively stable and representative snapshot of current traffic conditions.

Weekday peak hour volumes and lane configurations at the study intersections are provided in **Appendix E**. Count sheets for these intersections are contained in **Appendix G.**

Existing Level of Service

Existing (2024) traffic volumes in **Appendix E** were analyzed using the methodology described above to determine the operating conditions at the study intersections.

Table 15 presents the Existing (2024) weekday peak hour LOS for the study intersections. Analysis sheets are contained in **Appendix F**.

Table 15: Existing (2024) Intersections Level of Service

NO.	Intersection	Control Type	Peak Hour	Existing (2024)	
				Average Vehicular Delay (sec/veh) [b]	LOS
1	Glenoaks Blvd & Vaughn St	Signalized	AM	35.2	D
			PM	23.2	C
2	Glenoaks Blvd & Eustace St	SSSC [a]	AM	45.8	E
			PM	32.9	D
3	Glenoaks Blvd & SR-118 WB Ramps	Signalized	AM	26.2	C
			PM	32.7	C
4	Glenoaks Blvd & Paxton St	Signalized	AM	22.3	C
			PM	23.3	C
5	SR-118 EB Ramps & Paxton St	Signalized	AM	24.4	C
			PM	24.3	C

Note:

[a] SSSC = Side Street Stop-Controlled

[b] Worst-performing movement reported for LOS and delay for unsignalized intersections.

Project Traffic

The development of peak hour vehicular traffic estimates for the Project involves the use of a three-step process: trip generation, trip distribution, and traffic assignment.

Trip Generation

The Project is a mixed-use development, with proposed uses being provided in one six story buildings with the following land uses:

- 218 market-rate multi-family residential dwelling units
- 28 income-restricted multi-family residential dwelling units
- 28,881 sf of supermarket space

Trip generation rates from Trip Generation, 11th Edition (Institute of Transportation Engineers [ITE], 2021) and the TAG were used to estimate the number of peak hour trips associated with the Project and are presented in **Table 16**. TAG trip generation rates were used for the residential uses, while ITE General Urban/Suburban rates were used for the supermarket use and to calculate an existing use credit for the State Motor Vehicles Department use. The TAG residential rates already consider the effects of transit and other non-automotive modes on trip-making, so no further external trip adjustments were utilized for the residential uses. A 5% trip generation adjustment that consider the effects of transit, walking, and biking was applied to the supermarket use in accordance with the TAG. Further adjustments were applied to all land uses to account for internalized trips between existing to remain and proposed uses based on MXD 2.0 *Mixed Use Trip Generation Methodology*. The MXD methodology was developed in partnership with the United States Environmental Protection Agency (EPA) to more accurately estimate the internalization of project trips associated with mixed-use developments and districts, which typically generate fewer vehicle trips than single use developments located in more isolated settings. Subsequent to the development of the original MXD methodology, Fehr & Peers has updated and refined the methodology to include additional model sensitivities, updated ITE trip generation rates, and updated input data from the City's travel demand model. Finally, a 40% pass-by adjustment was applied to the supermarket use in accordance with the TAG to account for Project-generated traffic that is already present on adjacent roadways for reasons other than accessing the Project. **Table 16** presents the trip generation methodology in detail. As shown, the Project is projected to generate a net increase of 21 trips (-13 inbound/34 outbound) in the AM peak hour and 99 trips (69 inbound/30 outbound) in the PM peak hour.

Trip Distribution

The geographic distribution of trips generated by the Project is dependent on the characteristics of the street system serving the Project Site, the level of accessibility of routes to and from the Project Site, and locations of employment, commercial centers, and residential areas to which residents of the Project and from which the visitors to the Project would be drawn. The distribution pattern developed for the Project were informed by these characteristics and distribution information from the Los Angeles citywide travel demand model. The Project's estimated trip distribution is illustrated in **Figure 9.**

Traffic Assignment

The traffic to be generated by the Project was assigned to the street network using the distribution patterns described in **Figure 9** and **Figure 10**. **Appendix E** provides the assignment of the Project-generated peak hour traffic volumes at the analyzed intersections during the AM and PM peak hours. The assignment of traffic volumes took into consideration the locations of the Project driveways, turning restrictions, neighborhood circulation patterns, and traffic control devices to minimize difficult turning maneuvers and circuitous routes.

Table 16: Project Vehicle Trip Generation Estimate

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation					
			AM Peak Hour			PM Peak Hour			AM Peak Hour Trips			PM Peak Hour Trips		
			Rate	In%	Out%	Rate	In%	Out%	In	Out	Total	In	Out	Total
PROPOSED PROJECT														
Multifamily Housing (Mid-Rise)	TAG [e]	218 DU	0.31	23%	77%	0.30	61%	39%	16	52	68	40	25	65
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*(1)*	*(1)*	*(4)*	*(2)*	*(6)*
Net External Vehicle Trips									16	51	67	36	23	59
Family Affordable Housing (Outside TPA Area)	TAG	28 DU	0.55	40%	60%	0.43	55%	45%	6	9	15	7	5	12
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*0*	*0*	*(1)*	*0*	*(1)*
Net External Vehicle Trips									6	9	15	6	5	11
Supermarket	850	28.84 KSF	2.86	59%	41%	8.95	50%	50%	48	34	82	129	129	258
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*(1)*	*(1)*	*(2)*	*(12)*	*(12)*	*(24)*
Less: Walk/Bike/Transit Trip Adjustment [c]				*5%*	*5%*		*5%*	*5%*	*(2)*	*(2)*	*(4)*	*(6)*	*(6)*	*(12)*
Total Driveway Trips									45	31	76	111	111	222
Less: Pass-by [d]			*40%*			*40%*			*(18)*	*(12)*	*(30)*	*(44)*	*(44)*	*(88)*
Net External Vehicle Trips									27	19	46	67	67	134
TOTAL DRIVEWAY TRIPS									67	91	158	153	139	292
TOTAL PROJECT EXTERNAL VEHICLE TRIPS									49	79	128	109	95	204
EXISTING USE CREDIT														
State Motor Vehicles Department	731	20.15 KSF	5.33	58%	42%	5.2	38%	62%	62	45	107	40	65	105
Net External Vehicle Trips									62	45	107	40	65	105
TOTAL EXISTING USE CREDIT									62	45	107	40	65	105
NET INCREMENTAL EXTERNAL TRIPS									-13	34	21	69	30	99

Notes:

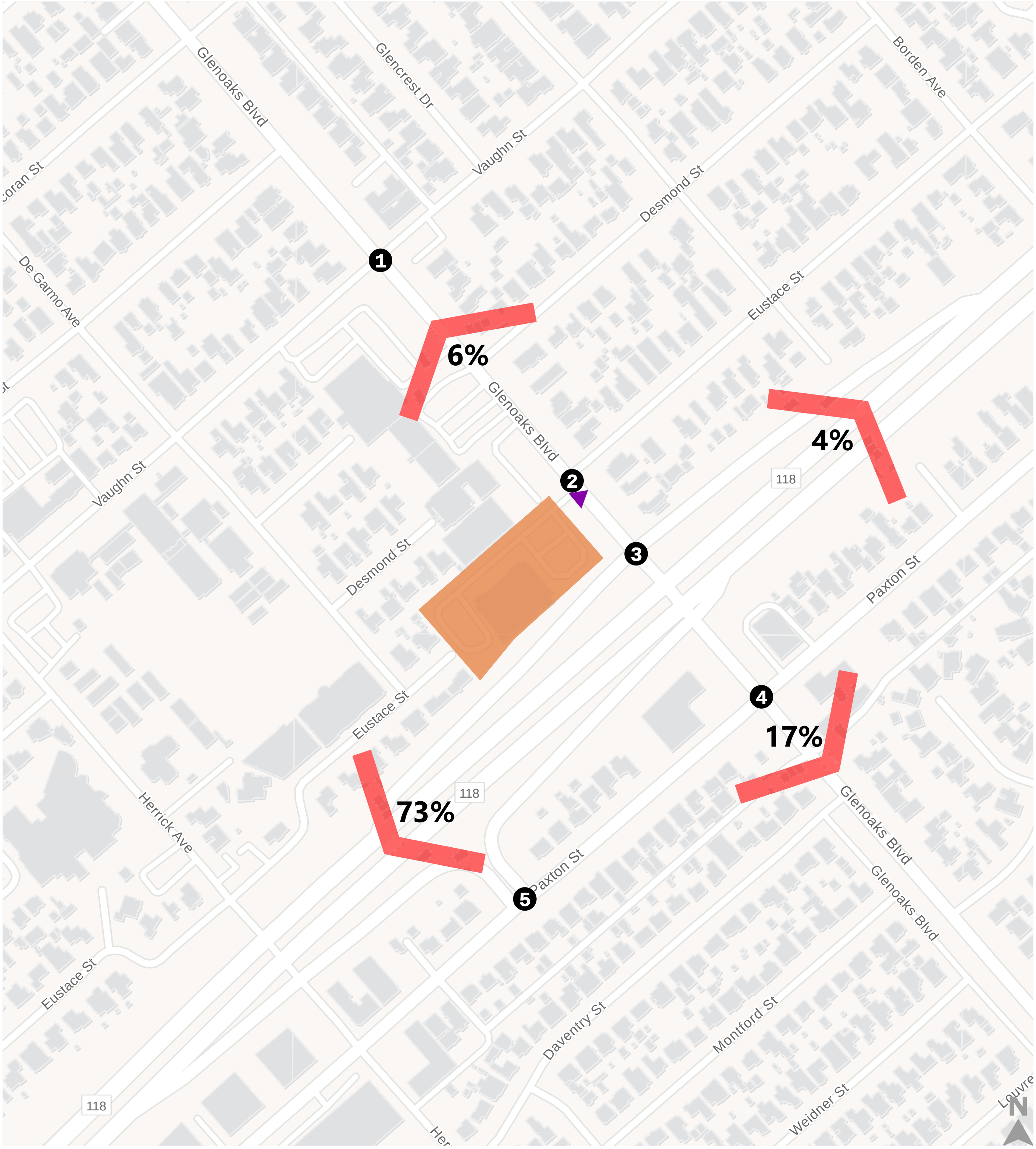
[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition* , 2021, or LADOT *Transportation Assessment Guildelines* (TAG), 2022, unless otherwise noted.

[b] Internal capture represents the percentage of trips between land uses that occur within the site. It is informed by MXD 2.0 Mixed Use Trip Generation Methodology, which incorporated the findings of NCHRP Project 8-51 as described in "Improved Estimation for Internal Trip Capture for Mixed-use Developments," ITE Journal, August 2010.

[c] Walk/bike/transit trip adjustment applied to account for the percentage of project trips that occur by walking, biking, or transit. The walk/bike/transit trip adjustment factor applied was determined based on guidance provided in LADOT's *Transportation Assessment Guidelines* (TAG), August 2022.

[d] Pass-by trip adjustment applied to account for the percentage of trips that would already be on the adjacent roadway but make a stop by the Project Site. The pass-by rate applied was determined based on guidance provided in Attachment J of the TAG. Supermarket applied rate: 40%.

[e] Overall rates obtained from TAG. In/Out percentages obtained from ITE Land Use Code 221, Not Close to Rail Transit, General Urban/Suburban.



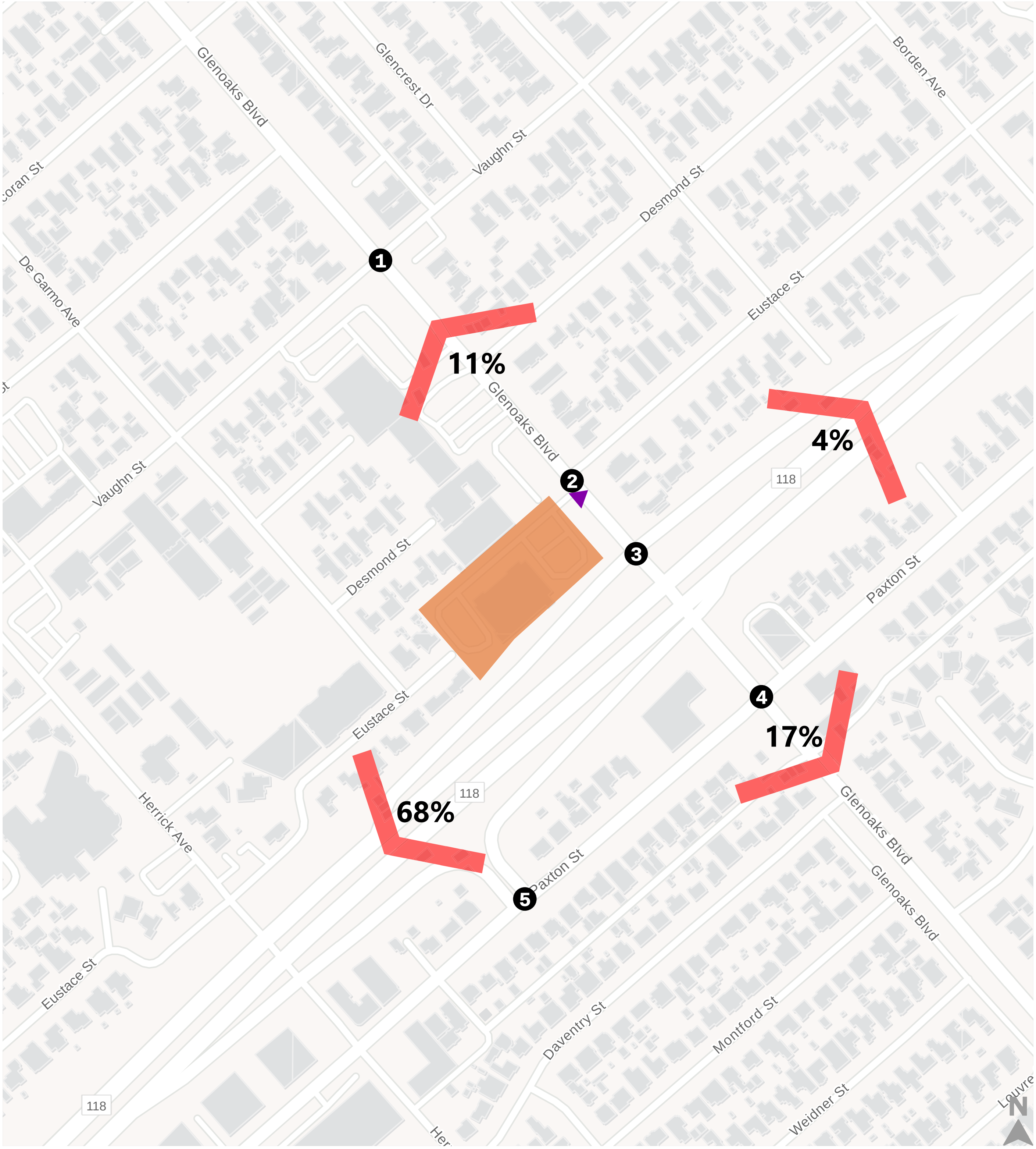
Project Site

Study Intersections

Project Driveway

Figure 9

Project Trip Distribution (AM)



Project Site

Study Intersections

Project Driveway

Figure 10

Project Trip Distribution (PM)

Opening Year Traffic Volumes

To evaluate the potential effects of the Project on Opening Year (2027) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with Project traffic. First, estimates of traffic growth were developed for the study area to forecast future conditions without the Project. These forecasts included traffic increases because of both regional ambient traffic growth and traffic generated by specific developments in the vicinity of the Project (related projects).

These projected traffic volumes, identified herein as the Opening Year (2027) conditions, represent the future conditions without the Project. The traffic generated by the Project was then estimated and assigned to the surrounding street system. Project traffic was added to the Opening Year (2027) conditions to form Opening Year Plus Project traffic conditions, which were analyzed to determine the incremental traffic impacts attributable to the Project itself.

The assumptions and analysis methodology used to develop each of the future year scenarios discussed above are described in more detail in the following sections.

Background or Ambient Growth

Based on the Los Angeles citywide travel demand model and with the concurrence of LADOT, it was established that an ambient volume growth factor 1.7% per year should be applied to adjust the Existing (2024) traffic volumes to reflect the effects of regional growth and development. This adjustment was applied to the Existing (2024) traffic volume data to reflect the effect of ambient growth in traffic volumes by the year 2027.

Related Project Traffic Generation and Assignment

Opening Year traffic forecasts include the effects of known specific projects, called related projects, expected to be implemented in the study area of the Project Site prior to the buildout date of the Project. The list of related projects was prepared based on data from LADOT. One related project was identified in the study area; this project was listed in **Table 7** and its location was illustrated in **Figure 6** in Chapter 2.

Trip Generation

For the related project provided by LADOT, the trip generation was used as provided. **Table 7** presents the trip generation estimates for this related project. These projections are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.). Corrective actions and mitigation measures associated with the related projects are also not in every case accounted for in the analysis.

Trip Distribution

The geographic distribution of the traffic generated by the related projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments may be drawn, the locations of employment and commercial centers to which residents of residential projects may be drawn, and the location of the projects in relation to the surrounding street system.

Traffic Assignment

Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related project was assigned to the street network based on street classification, proximity to signalized intersections, and typical traffic conditions.

Opening Year No Project Traffic Volumes

Opening Year (2027) peak hour traffic volumes and lane geometries for weekday AM and PM scenarios for the analyzed intersections are provided in **Appendix E**. The Opening Year (2027) traffic conditions represent an estimate of future conditions without the Project inclusive of the ambient background growth and related project's traffic.

Opening Year Plus Project Traffic Projections

The Project traffic volumes were added to the Opening Year (2027) traffic projections, resulting in Opening Year (2027) Plus Project peak hour traffic volumes. As provided in **Appendix E**, the Opening Year (2027) Plus Project scenario represents future traffic conditions with the completion of the Project.

Opening Year Operational Analysis

The Opening Year (2027) No Project and Plus Project peak hour traffic volumes were analyzed to determine the projected LOS and 95th percentile queue lengths for the turn pockets and through movements for the study intersections. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing on an Avenue or Boulevard (as designated in the *Mobility Plan* 2035) at project driveway(s) or would cause or substantially extend queuing at nearby signalized intersections.

Per the TAG, a project would be considered to contribute to unacceptable or extended queuing under any of the following conditions:

- Additional queue along through lanes and either of the following conditions are expected:
    - The projected peak hour intersection LOS is D and the through lane queue increases by greater than 75 feet on any approach with the directional approach LOS at E or F, or
    - The projected peak hour intersection LOS is E or F and the through lane queue increases by greater than 50 feet on any approach with the directional approach LOS at E or F.
- Spill over from turn pockets into through lanes
- Blocks cross streets or alleys
- Spill over from drive-throughs into streets (not applicable to the Project)
- Contribute to "gridlock" congestion, where "gridlock" is defined as when traffic queues between closely-spaced intersections impedes the flow of traffic through upstream intersections.

Table 17 presents the Opening Year (2027) and Opening Year Plus Project LOS for the study intersections, along with the estimated 95th percentile queue lengths and approach LOS for the vehicular movements at study intersections.

The addition of Project traffic to study intersections would not cause or substantially contribute to unacceptable queuing during any peak hours per the City's criteria. Detailed intersection LOS worksheets for the study intersections are presented in **Appendix F**.

Corrective Measures

Because the Project is not projected to cause or substantially contribute to unacceptable queuing at any study intersections, no corrective measures are proposed.

Table 17: Opening Year (2027) Plus Project LOS and Queues

#	Study Intersection	Control Type	Opening Year (2027) No Project: Intersection LOS (AM/PM Peak Hour)[4]	Opening Year (2027) No Project: Movement[1]	Opening Year (2027) No Project: Peak Hour Directional LOS AM	Opening Year (2027) No Project: Peak Hour Directional LOS PM	Opening Year (2027) Plus Project: Intersection LOS (AM/PM Peak Hour)[4]	Opening Year (2027) Plus Project: Peak Hour Directional LOS AM	Opening Year (2027) Plus Project: Peak Hour Directional LOS PM	Movement[1]	Storage Length	Peak Hour 95th Percentile Queue[3] (ft.): Opening Year (2027) No Project AM	Peak Hour 95th Percentile Queue[3] (ft.): Opening Year (2027) No Project PM	Peak Hour 95th Percentile Queue[3] (ft.): Opening Year (2027) Plus Project AM	Peak Hour 95th Percentile Queue[3] (ft.): Opening Year (2027) Plus Project PM	Project Contributes to Unacceptable Queuing[2] AM	Project Contributes to Unacceptable Queuing[2] PM
1	Glenoaks Blvd & Vaughn St	Signalized	D/C	NBL	C	B	D/C	C	B	NBL	110	125	50	125	50	No	No
				NBT	C	C		C	C	NBT	1,800	300	250	300	250	No	No
				NBR	B	B		B	B	NBR	110	<25	<25	<25	<25	No	No
				SBL	C	C		C	C	SBL	120	50	50	50	50	No	No
				SBT	F	C		F	C	SBT	2,600	650	500	650	500	No	No
				SBR	B	B		B	B	SBR	50	<25	<25	<25	<25	No	No
				EBL/T/R	C	C		C	C	EBL/T/R	575	325	125	325	125	No	No
				WBL/T/R	D	D		D	D	WBL/T/R	1,225	350	225	350	225	No	No
2	Glenoaks Blvd & Eustace St	SSSC	F/E	NBT/R	-	-	F/E	-	-	NBT/R	350	-	-	-	-	-	-
				SBT	-	-		-	-	SBT	1,300	-	-	-	-	-	-
				SBL	B	B		B	B	SBL	300	<25	<25	<25	<25	No	No
				WBL/R	F	E		F	E	WBL/R	575	75	25	75	25	No	No
3	Glenoaks Blvd & SR-118 WB Ramps	Signalized	C/C	NBL	F	C	D/C	F	C	NBL	400	425	400	425	375	No	No
				NBT	A	A		A	A	NBT	700	125	125	125	150	No	No
				SBT	B	B		B	B	SBT	1,800	75	75	75	100	No	No
				SBR	C	E		C	E	SBR	100	100	500	100	500	No	No
				WBL/T/R	C	D		C	D	WBL/T/R	975	275	175	275	175	No	No
4	Glenoaks Blvd & Paxton St	Signalized	C/C	NBL	C	B	C/C	C	B	NBL	120	100	75	100	75	No	No
				NBT	C	C		C	C	NBT	2,700	350	325	350	350	No	No
				NBR	C	C		C	C	NBR	-	-	-	-	-	-	-
				SBL	B	B		B	B	SBL	130	<25	25	<25	25	No	No
				SBT	A	A		A	A	SBT	799	175	100	175	100	No	No
				SBR	A	A		A	A	SBR	150	25	25	25	25	No	No
				EBL	D	C		D	D	EBL	150	325	250	325	300	No	No
				EBT	C	C		C	C	EBT	1,300	475	425	500	425	No	No
				EBR	C	C		C	C	EBR	-	-	-	-	-	-	-
				WBL	E	D		E	D	WBL	80	150	100	150	100	No	No
				WBT	D	D		D	D	WBT	2,400	250	250	250	250		
				WBR	D	D		D	D	WBR	-	-	-	-	-	-	-
5	Paxton St & SR-118 EB Ramps	Signalized	D/C	SBL/R	D	D	D/D	E	E	SBL/R	900	450	400	450	425	No	No
				EBL	E	E		E	D	EBL	125	200	250	200	250	No	No
				EBT	B	B		B	B	EBT	900	100	100	100	100	No	No
				WBT/R	B	B		B	B	WBT/R	1,300	125	100	125	100	No	No

1. EBL= Eastbound left, EBT = Eastbound through, EBR = Eastbound right, WBL = Westbound left, WBT = Westbound through, WBR = Westbound right, NBL = Northbound left, NBT = Northbound through, NBR = Northbound right, SBL = Southbound left, SBT = Southbound through, SBR = Southbound right.

2. Unacceptable queuing as defined in the report text, per the *Los Angeles Department of Transportation Transportation Assessment Guidelines* (August 2022).

3. Queue lengths are outputs derived from the Opening Year Conditions Synchro model developed for this Project. The 95th percentile queue length is a conservative assumption commonly employed for intersection design considerations and does not represent the typical queue length an average driver would experience.

4. Intersection LOS for unsignalized intersections reported using the worst-performing movement.

4.3 Site Access Evaluation

This section evaluates the site access of the Project driveways, including projected levels of service (LOS) and queuing.

Project Driveways

Vehicular access to the Project Site would be provided via one stop-controlled driveway that would provide access to structured parking. There is currently one driveway serving the Project along Glenoaks Boulevard. The Project proposes to shift the existing vehicular access point northwest to the property line on Glenoaks Boulevard (Access A). Below is a description of the Project's proposed driveway:

- **Access A:** The Project proposes a left- and right-in/right-out only driveway off Glenoaks Boulevard at the northeastern end of the site. Outbound left-turns from this driveway would not be permitted.

The Project's vehicular driveway would be designed to the City standards and would provide adequate sight distance. They would not require the removal or relocation of existing public transit stops. Glenoaks Boulevard along the Project Site is part of the designated HIN, however, the number of Project Site driveways along Glenoaks Boulevard would not be increased. Loading would be provided on-site.

Project Driveway LOS Analysis

An LOS and queuing analysis was completed to understand Project driveway operations during the AM and PM and peak hours. Project driveway trip generation, distribution, and assignment are based on the same assumptions for study intersections discussed in Chapter 4.2. **Table 18** summarizes the LOS and queuing analyses. The Opening Year (2027) AM and PM peak hour turning movement counts and lane configurations for the Project driveway/access intersection is presented in **Appendix E**. **Appendix F** provides the detailed LOS and queuing reports. As shown, the Project driveway/access point is expected to operate with limited queues and acceptable LOS.

Table 18: Opening Year (2027) Plus Project Driveway LOS and Queue Lengths

#	Project Access Locations	Opening Year (2027) Plus Project			Movement[1]	Storage Length	Peak Hour 95th Percentile Queue[5]		Project Contributes to Unacceptable Queuing[2]	
		Intersection LOS (AM/PM Peak Hour)	Peak Hour Directional LOS				Opening Year (2027) Plus Project			
			AM	PM			AM	PM	AM	PM
A	Glenoaks Blvd & Driveway A	C/C	C	C	NBL[3]	70	<25	25	No	No
			-	-	SBR[3]	675	-	-	-	-
			C	C	EBR[4]	On-Site	25	25	No	No

1. EBL= Eastbound left, EBT = Eastbound through, EBR = Eastbound right, WBL = Westbound left, WBT = Westbound through, WBR = Westbound right, NBL = Northbound left, NBT = Northbound through, NBR = Northbound right, SBL = Southbound left, SBT = Southbound through, SBR = Southbound right.

2. Unacceptable queuing as defined in the report text, per the *TAG (August 2022)*.

3. Inbound movement

4. Outbound movement

5. Queue lengths are outputs derived from the Opening Year Conditions Synchro peak hour models developed for this Project. The 95th percentile queue length is a conservative assumption commonly employed for intersection design considerations and does not represent the typical queue length an average driver would experience.

4.4 Project Construction

This section assesses whether the construction of the Project would interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility, considering three categories of construction impacts per the TAG: (1) temporary transportation constraints, (2) temporary loss of access, and (3) temporary loss of bus stops or rerouting of bus lines.

Project construction is anticipated to be completed in 2027. It is estimated that approximately 3450 truckloads of export would be hauled from the Project Site for excavation. It is estimated that approximately 1310 truckloads of concrete will be brought into the Project Site.

Anticipated Construction Activity

Project construction is expected to occur in stages starting in August 2025 and finishing in late 2027. Below are the following phases of construction and their estimated durations:

- Phase 1: Demolition of Asphalt – 1.5 months
- Phase 2: Site Preparation – .5 month
- Phase 3: Excavation – 2.5 months
- Phase 4: Construction – 20 months
- Phase 5: Architectural Coatings – 2 months

Los Angeles Municipal Code (LAMC) Section 41.40 provides that construction activities are limited to the hours from 7:00 AM to 9:00 PM on weekdays and from 8:00 AM to 6:00 PM on Saturdays and holidays. No construction is permitted on Sundays.

Construction Trucks

Haul Trucks

During construction, up to 69 one-way haul truck trips per day are anticipated on peak haul days.

Hauling hours are anticipated to begin at 7:00 AM and continue to 5:00 PM, Monday through Saturday. The haul route would utilize Glenoaks Boulevard to access SR-118. Haul trucks would then utilize this freeway to access I-210 or I-5 to reach landfill sites in Sylmar or Glendale.

Equipment and Delivery Trucks

In addition to haul trucks, the Project is expected to generate equipment and delivery truck trips during construction. One example would be for concrete delivery, which would be required for the subterranean parking and the buildings on-site. Other deliveries could include plumbing supplies, electrical fixtures, and items used in furnishing the buildings. These materials would be delivered to the Project Site and stored on-site. These deliveries are expected to occur in variously sized vehicles including small delivery trucks to cement mixer trucks and 18-wheel trucks. Additionally, construction equipment would have to be delivered to the Project Site. This equipment could include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment is expected to be transported to the Project Site on large trucks such as 18-wheelers or other similar vehicles.

Up to 65 one-way delivery/concrete truck trips are expected per day during the peak construction phase of pouring the foundation.

Construction Employees

The number of construction workers would vary throughout the construction period. Up to 200 one-way worker trips are expected per day during the peak construction phase.

Construction Worker Parking

Staging and parking areas during construction would initially be located at an off-site location to be determined at a future date. No staging and worker parking would occur on public streets and rights-of-way. Workers would park in the Project's subterranean parking garage after it is constructed.

Construction Period Evaluation Criteria

The TAG provides three categories to be considered in regard to in-street construction effects: temporary traffic constraints, temporary loss of access, and temporary loss of bus stops or rerouting of bus lines. The evaluation criteria to be considered in each of these categories are as follows:

- Temporary Traffic Constraints:
    - The length of time of temporary street closures or closures of two more traffic lanes;
    - The classification of the street (major arterial, state highway, substandard hillside local or collector, etc.) affected;
    - The existing congestion levels on the affected street segments and intersections;
    - The operational constraints of substandard hillside streets needing to access construction sites;
    - Whether the affected street directly leads to a freeway on- or off-ramp or other state highway;
    - Potential safety issues involved with street or lane closures; and
    - The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street.
- Temporary Loss of Access:
    - The length of time of any loss of pedestrian or bicycle circulation past a construction area;
    - The length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel fronting the construction area;

- The length of time any loss or impedance of access by emergency vehicles or area residents to hillside properties;
- The length of time of any loss of ADA pedestrian access to a transit station, stop, or facility;
- Permanent or temporary removal of parking meters
- The availability of nearby vehicular or pedestrian access within ¼ mile of the lost access; and
- The type of land uses affected, and related safety, convenience, and/or economic issues.

- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
    - The length of time that an existing bus stop would be unavailable or that existing service would be interrupted;
    - The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated;
    - The existence of other bus stops or routes with similar routes/destinations within a ¼ mile radius of the affected stops or routes; and
    - Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s).

Construction Analysis

The assessment of the Project against the evaluation factors described above is presented in **Table 19** and discussed below.

Temporary Traffic Constraints

Long-term closures to primary travel lanes are not anticipated to occur during construction of the Project along Glenoaks Boulevard. If necessary in order to maintain access to the sidewalk and crosswalks along Glenoaks Boulevard during construction of the Project, a pedestrian canopy would be constructed.

Temporary Loss of Access

The existing land uses near the vicinity of the Project Site will remain open throughout construction. Pedestrian and vehicular access to properties located adjacent and near to the Project Site would remain open and unobstructed for the duration of construction. No loss of ADA pedestrian access to transit stops, stations, or facilities is anticipated. No on-street parking is currently permitted on the Project frontage along Glenoaks Boulevard, so Project construction will not affect on-street parking availability.

Temporary Loss of Bus Stops or Rerouting of Bus Lines

Project construction would not require temporary loss or relocation of bus stops or rerouting of bus lines.

Table 19: Construction Evaluation

Evaluation Criteria	Assessment
Temporary Transportation Constraints	
The length of time of temporary street closures or closures of two or more travel lanes	The Project will not close two or more travel lanes during construction. No lane closures are expected on Glenoaks Boulevard. Access would be maintained for adjacent properties at all times.
The classification of the street (major arterial, state highway, substandard hillside local or collector, etc.) affected	Glenoaks Boulevard is classified as an Boulevard II.
The existing congestion levels on the affected street segments and intersections	Glenoaks Boulevard and Vaughn Street was observed to operate between LOS C and D during peak hours. Glenoaks Boulevard and Eustace Street was observed to operate between LOS D and E during peak hours. Glenoaks Boulevard and the SR-118 WB Ramps was observed to operate at LOS C during peak hours. Glenoaks Boulevard and Paxton Street was observed to operate at LOS C during peak hours. The SR-118 EB Ramps and Paxton Avenue was observed to operate at LOS C during peak hours.
The operational constraints of substandard hillside streets needing to access construction sites	Not applicable.
Whether the affected street directly leads to a freeway on- or off-ramp or other state highway	Construction would not involve street closures on roadways that lead onto or from freeway ramps.
Potential safety issues involved with street or lane closures	Although no lane closures are anticipated, in the event that construction work would necessitate temporary disruptions to street access, alternative routing and detours would be identified and marked in coordination with LADOT and the City of Los Angeles Bureau of Engineering. Traffic control plans would be designed in accordance with LADOT standards, the CAMUTCD, and the Work Area Traffic Control Handbook (WATCH).
The presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street	There are no emergency services in the immediate vicinity of the Project.
Temporary Loss of Access	
The length of time of any loss of pedestrian or bicycle circulation past a construction area	Pedestrian access along Glenoaks Boulevard would be maintained. If necessary, a pedestrian canopy would be erected along the Project frontage on Glenoaks Boulevard.
The length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel fronting the construction area	It is not anticipated that any non-Project parcels would lose vehicular, bicycle, or pedestrian access.
The length of time of any loss or impedance of access by emergency vehicles or area residents to hillside properties	Not applicable.
The length of time of any loss of ADA pedestrian access to a transit station, stop, or facility	It is not anticipated that ADA pedestrian access to any bus stops would be affected. There are no bus stops along the Project frontage.
The availability of nearby vehicular or pedestrian access within ¼ mile of the lost access	Not applicable.
The type of land uses affected, and related safety, convenience, and/or economic issues	The Project site is in a primarily residential area with commerical and retail parcels along Glenoaks Boulevard.
Temporary Loss of Bus Stops or Rerouting of Bus Lines	
The length of time that an existing bus stop would be unavailable or that existing service would be interrupted	The Project will not make any existing bus stops unavailable or interrupt existing bus service.
The availability of a nearby location (within ¼ mile) to which the bus stop or route can be temporarily relocated	Not applicable.
The existence of other bus stops or routes with similar routes/destinations within a ¼-mile radius of the affected stops or routes	Not applicable.
Whether the interruption would occur on a weekday, weekend or holiday, and whether the existing bus route typically provides service that/those day(s)	Not applicable.

Appendix A:
Memorandum of Understanding

LADOT

Attachment C

Transportation Assessment Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 11623 Glenoaks Project

Project Address: 11623 Glenoaks Blvd, Pacoima, CA 91331

Project Description: One six-story mixed-use building with 246 dwelling units including 28 affordable units, 28.853 ksf of supermarket, and 293 parking spaces, replacing a 20.145 ksf DMV office vacated in September 2023. (see Attachment A)

LADOT Project Case Number: ____________ Project Site Plan attached? *(Required)* ☑ Yes ☐ No

II. TRANSPORTATION DEMAND MANAGEMENT (TDM) MEASURES

Select any of the following TDM measures, which may be eligible as a Project Design Feature[1], that are being considered for this project:

✓	Reduced Parking Supply[2] per AB 2097	✓	Bicycle Parking and Amenities		Parking Cash Out

List any other TDM measures (e.g. bike share kiosks, unbundled parking, microtransit service, etc.) below that are also being considered and would require LADOT staff's determination of its eligibility as a TDM measure. LADOT staff will make the final determination of the TDM measure's eligibility for this project.

1 Unbundled Parking per AB 1317 4 ____

2 ____ 5 ____

3 ____ 6 ____

III. TRIP GENERATION

Trip Generation Rate(s) Source: ~~ITE 10th Edition~~ ITE 11th Edition / Other & LADOT TAG (Residential)

Trip Generation Adjustment *(Exact amount of credit subject to approval by LADOT)*	Yes	No
Transit Usage	☐	☑
Existing Active or Previous Land Use	☑	☐
Internal Trip	☑	☐
Pass-By Trip	☑	☐
Transportation Demand Management (See above)	☑	☐

Trip generation table including a description of the existing and proposed land uses, rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ☑ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	-13	34	21
PM Trips	69	30	99

Table 1 & Attachment A

NET Daily Vehicle Trips (DVT)
____ DVT (ITE __ ed.)
3,697 DVT (VMT Calculator ver. 1.4)

Figure 2

does not reflect existing use credit

[1] At this time Project Design Features are only those measures that are also shown to be needed to comply with a local ordinance, affordable housing incentive program, or State law.

[2] Select if reduced parking supply is pursued as a result of a parking incentive as permitted by the City's Bicycle Parking Ordinance, State Density Bonus Law, or the City's Transit Oriented Community Guidelines.

IV. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2027 Ambient Growth Rate: 1.7 % Per Yr. Per Project TAZ in City travel demand model

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ☑ Yes ☐ No

STUDY INTERSECTIONS and/or STREET SEGMENTS: Table 2 & Figure 3
(May be subject to LADOT revision after access, safety, and circulation evaluation.)

1	Glenoaks / Vaughn	4	Glenoaks / Paxton
2	Glenoaks / Eustace	5	Paxton / SR-118 EB Ramps
3	Glenoaks / SR-118 WB Ramps	6	

Provide a separate list if more than six study intersections and/or street segments. Figure 4

Is this Project located on a street within the High Injury Network? ☑ Yes ☐ No

If a study intersection is located within a ¼-mile of an adjacent municipality's jurisdiction, signature approval from said municipality is required prior to MOU approval.

V. ACCESS ASSESSMENT

a. Does the project exceed 1,000 net DVT? ☑ Yes ☐ No
b. Is the project's frontage 250 linear feet or more along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☑ No
c. Is the project's building frontage encompassing an entire block along an Avenue or Boulevard as classified by the City's General Plan? ☐ Yes ☑ No

VI. ACCESS ASSESSMENT CRITERIA

If Yes to any of the above questions a., b., or c., complete **Attachment C.1: Access Assessment Criteria**.

VII. SITE PLAN AND MAP OF STUDY AREA

Please note that the site plan should also be submitted to the Department of City Planning for cursory review.

	Does the attached site plan and/or map of study area show	Yes	No	Not Applicable
Figure 4	Each study intersection and/or street segment	☑	☐	☐
Figure 7	*Project Vehicle Peak Hour trips at each study intersection	☑	☐	☐
Figure 7	*Project Vehicle Peak Hour trips at each project access point	☑	☐	☐
Figures 5-6	*Project trip distribution percentages at each study intersection	☑	☐	☐
Figure 1	Project driveways designed per LADOT MPP 321 (show widths and directions or lane assignment)	☑	☐	☐
Figure 1	Pedestrian access points and any pedestrian paths	☑	☐	☐
	Pedestrian loading zones	☐	☐	☑
Figure 1	Delivery loading zone or area	☑	☐	☐
Figure 1	Bicycle parking onsite	☑	☐	☐
	Bicycle parking offsite (in public right-of-way)	☐	☐	☑

*For mixed-use projects, also show the project trips and project trip distribution by land use category.

VIII. FREEWAY SAFETY ANALYSIS SCREENING

Will the project add 25 or more trips to any freeway off-ramp in either the AM or PM peak hour? ☑ **YES** ☐ **NO**

Provide a brief explanation or graphic identifying the number of project trips expected to be added to the nearby freeway off-ramps serving the project site. If Yes to the question above, a freeway ramp analysis is required.

Figure 7

IX. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Andrew Jarnagin | Fehr & Peers	118, LP
Address:	600 Wilshire Blvd, Suite 1050, Los Angeles, CA 90017	PO Box 12980, Marina Del Rey, CA 90295
Phone Number:	(213) 261-3083	(818) 927-2867
E-Mail:	a.jarnagin@fehrandpeers.com	mike@jpgworks.com

Approved by:	x ____________ Consultant's Representative	____________ Date	x Miguel Cris LADOT Representative	06/26/2024 **Date
Adjacent Municipality: ____________	Approved by: (if applicable)	____________ Representative		____________ Date

**MOUs are generally valid for two years after signing. If after two years a transportation assessment has not been submitted to LADOT, the developer's representative shall check with the appropriate LADOT office to determine if the terms of this MOU are still valid or if a new MOU is needed.

LADOT

Attachment C.1

Access Assessment Criteria

This Criteria acknowledges that the Transportation Assessment for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Assessment Guidelines:

I. PROJECT INFORMATION

Project Name: 11623 Glenoaks Project

Project Address: 11623 Glenoaks Blvd, Pacoima, CA 91331

Project Description: One six-story mixed-use building with 246 dwelling units including 28 affordable units, 28.853 ksf of supermarket, and 293 total parking spaces, replacing a 20.145 ksf DMV office vacated in September 2023.

LADOT Project Case Number: ___________________________

II. PEDESTRIAN/ PERSON TRIP GENERATION

Source of Pedestrian/Person Trip Generation Rate(s)? ☑ VMT Calculator ☐ ITE 10th Edition ☐ Other:

	Land Use	Size/Unit	Daily Person Trips
Proposed	All Project Land Uses - See VMT Calculator		555
	(Assume 15% of Project trips)		
	Total new trips:		555

Pedestrian/Person trip generation table including a description of the proposed land uses, trip credits, person trip assumptions, comparison studies used for reference, etc. attached? ☐ Yes ☑ No

III. PEDESTRIAN ATTRACTORS INVENTORY

Attach Pedestrian Map for the area (1,320-foot radius from edge of the project site) depicting: Figure 8

- site pedestrian entrance(s)
- Existing or proposed passenger loading zones
- pedestrian generation/distribution values
  - Geographic Distribution: N 20 % S 35 % E 10 % W 35 % From distribution of pedestrian attractors
- transit boarding and alighting of transit stops (should include Metro rail stations; Metro, DASH, and other municipal bus stops)
- Key pedestrian destinations with hours of operation:
  - schools (school times)
  - government offices with a public counter or meeting room
  - senior citizen centers
  - recreation centers or playgrounds
  - public libraries
  - medical centers or clinics
  - child care facilities
  - post offices

- places of worship
- grocery stores
- other facilities that attract pedestrian trips

- pedestrian walking routes to key destinations from project site

Note: Pedestrian Count Summary, Bicycle Count Summary, Manual Traffic Count Summary will need to be attached to the Transportation Assessment

IV. FACILITIES INVENTORY

Is a High Injury Network street located within 1,320-foot radius from the edge of the project site? ☑ Yes ☐ No
If yes, list streets and include distance from the project: Figure 9

Glenoaks Blvd at 0 (feet)

Paxton St at 600 (feet)

Vaughn St at 800 (feet)

Herrick Ave at 1,000 (feet)

Attach Radius Map for the area (1,320 foot radius from edge of the project site) depicting the following existing and proposed facilities: Figure 9

- transit stops
- bike facilities
- traffic control devices for controlled crossings
- uncontrolled crosswalks
- location of any missing, damaged or substandard sidewalks

For a reference of planned facilities, see the Transportation Assessment Support Map

Crossing Distances

Does the project property have frontage along an arterial street (designated as either an Avenue or Boulevard?)

☑ Yes ☐ No

If yes, provide the distance between the crossing control devices (e.g. signalized crosswalk, or controlled mid-block crossing) along any arterial within 1,320 feet of the property.

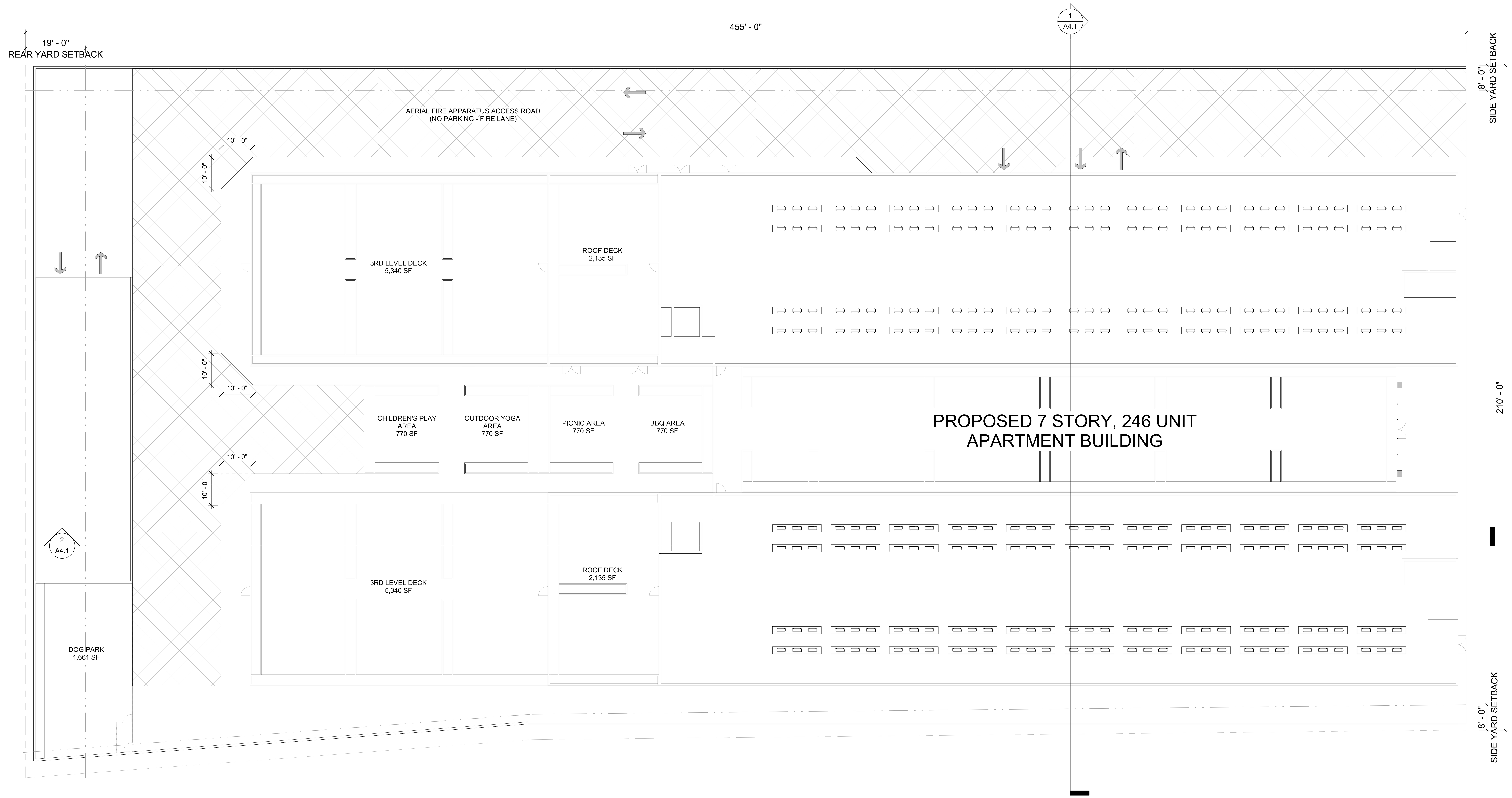
890 (feet) at	Glenoaks Blvd between Vaughn St & SR-118 WB Ramps	________(feet) at	________
450 (feet) at	Glenoaks Blvd between SR-118 WB Ramps & Paxton St	________(feet) at	________
1,225 (feet) at	Paxton St between Glenoaks Blvd & Herrick Ave	________(feet) at	________
1,220 (feet) at	Paxton St between Glenoaks Blvd & Borden Ave	________(feet) at	________
________(feet) at	________	________(feet) at	________
________(feet) at	________	________(feet) at	________

V. Project Construction

Will the project require any construction activity within the city right-of-way? ☑ Yes ☐ No

If yes, will the project require temporary closure of any of the following city facilities?

- ☒ sidewalk
- bike lane
- parking lane
- travel lane
- bus stop
- bicycle parking (racks or corrals)
- bike share or other micro-mobility station
- car share station
- parklet
- other: _________________________



SITE PLAN 1
1/16" = 1'-0"

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:

11623 GLENOAKS

11623 GLENOAKS BLVD,
PACOIMA 91331

Owner:

Owner

Stamp:

LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

Date: 1/16/2024 9:49:29 AM
Issued For
Project Status
Job Number: Project Number

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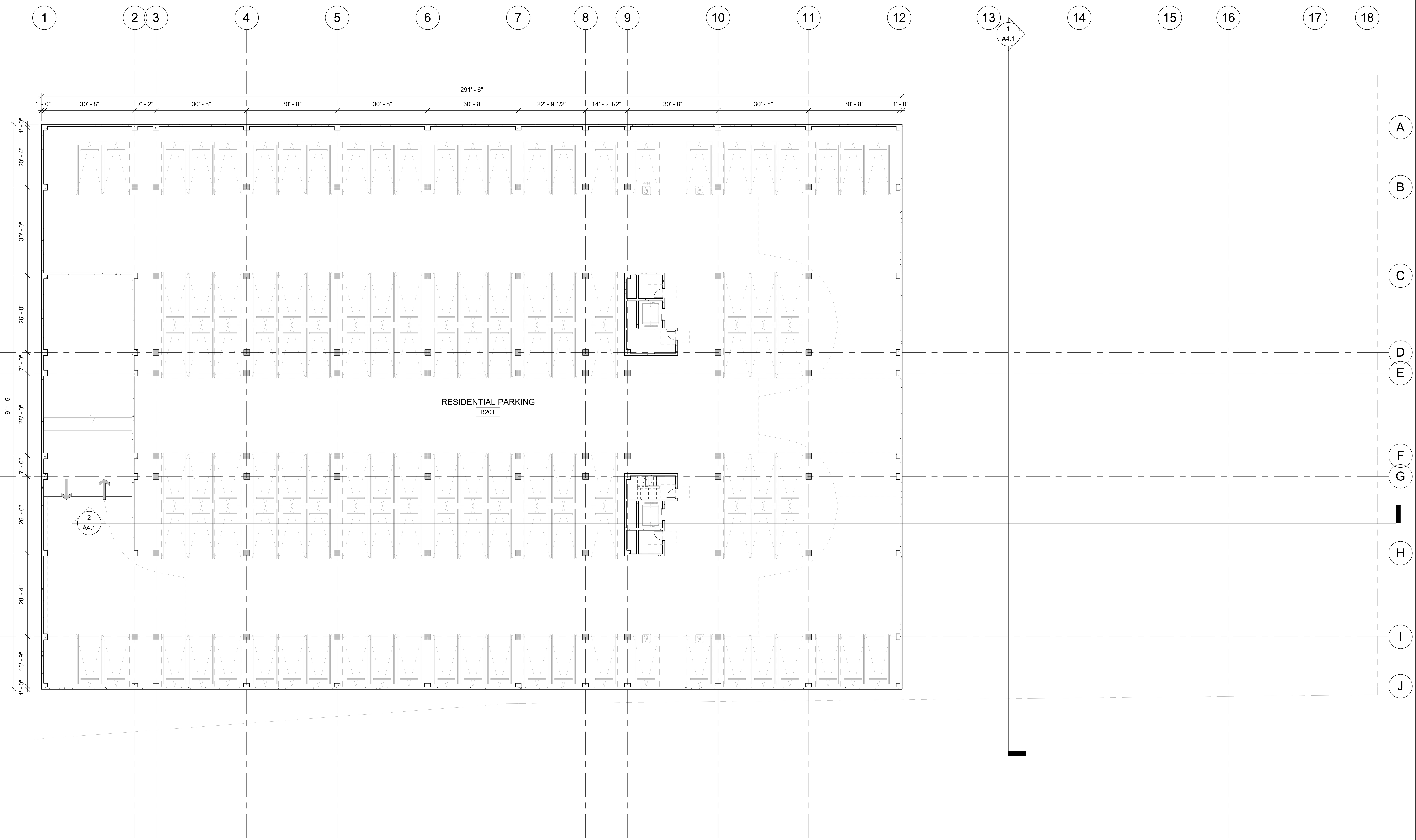
Sheet Title
SITE PLAN

Sheet No.
F1-A



BASEMENT 2 1
1/16" = 1'-0"

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:

11623 GLENOAKS

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PACOIMA 91331

Owner:

Owner

Stamp:

LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

APPROVAL STAMP

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Issued For
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Job Number: Project Number

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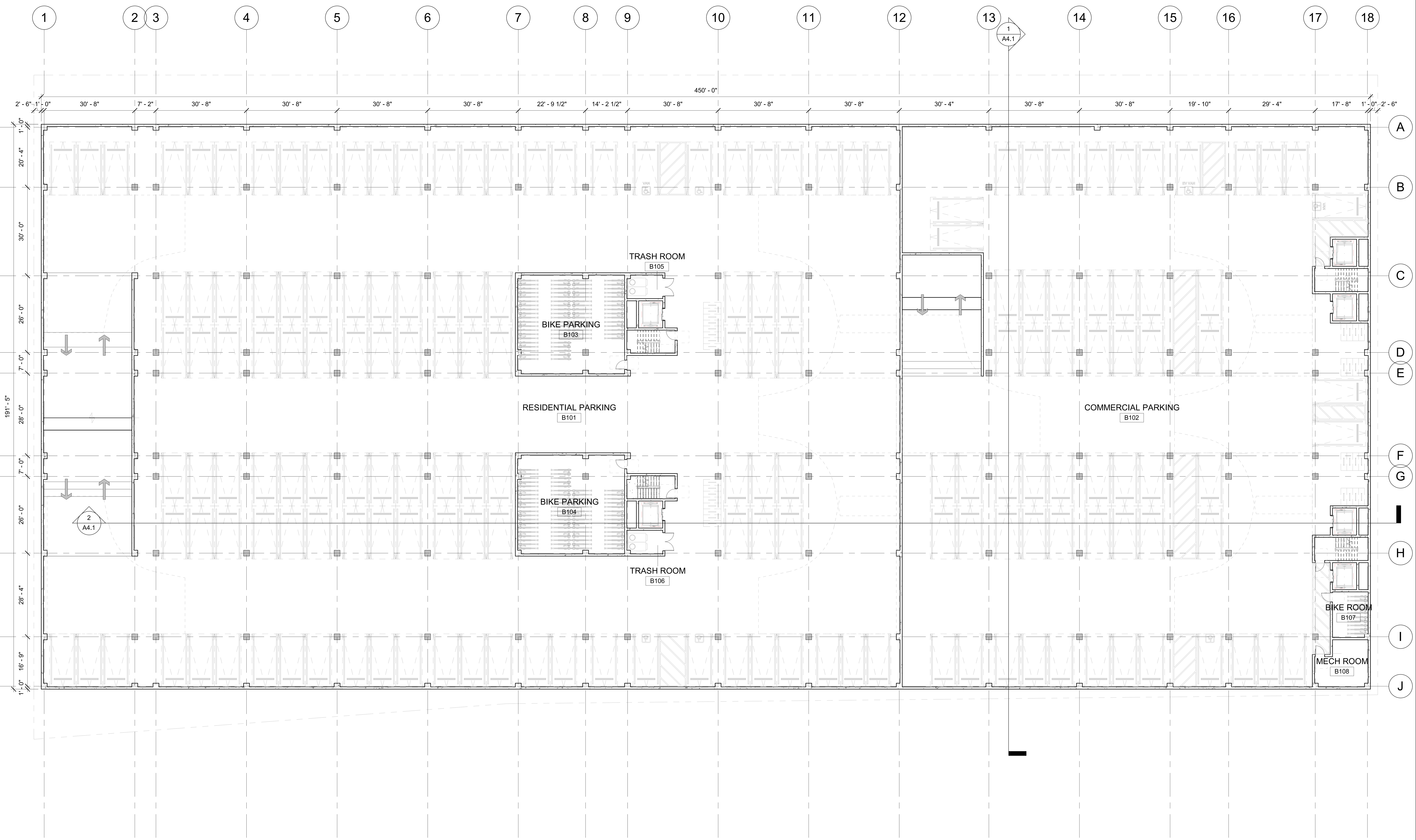
Sheet Title
FLOOR PLAN - BASEMENT 2

Sheet No.
F1-B



BASEMENT 1
1/16" = 1'-0"
1

ARCHEON
architecture
development
management

3530 WILSHIRE BLVD, SUITE 615
LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:

11623 GLENOAKS

11623 GLENOAKS BLVD,
PACOIMA 91331

Owner:

Owner

Stamp:

LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

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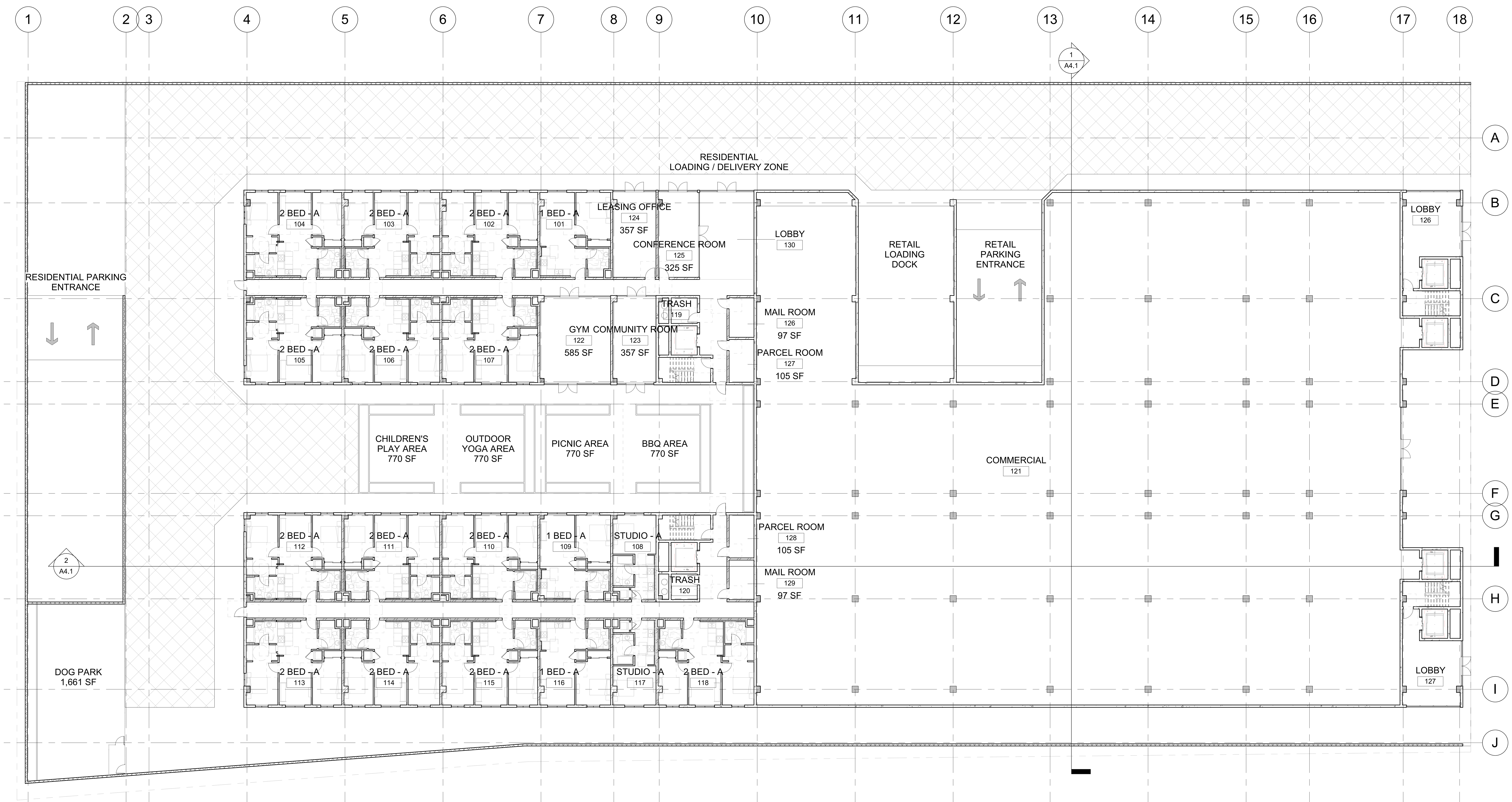
Sheet Title
FLOOR PLAN - BASEMENT 1

Sheet No.
F1-C



ARCHEON
architecture
development
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LOS ANGELES, CA 90010
TEL: 213.984.4015
FAX: 213.325.3695

Project:

11623 GLENOAKS

11623 GLENOAKS BLVD,
PACOIMA 91331

Owner:

Owner

Stamp:

LICENSED ARCHITECT
CHRISTOPHER PAK
C-25621
04/30/2023
RENEWAL DATE
STATE OF CALIFORNIA

Issue	Submittal	Date

Revision No. Date

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Date: 1/30/2024 4:18:34 PM
Issued For
Project Status
Job Number: Project Number

Scale
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Sheet Title
FLOOR PLAN - GROUND

GROUND FLOOR 1
1/16" = 1'-0"

Sheet No.

F1-D

Table 1: Project Vehicle Trip Generation Estimate

Land Use	ITE Land Use Code	Size	Trip Generation Rates [a]						Estimated Trip Generation					
			AM Peak Hour			PM Peak Hour			AM Peak Hour Trips			PM Peak Hour Trips		
			Rate	In%	Out%	Rate	In%	Out%	In	Out	Total	In	Out	Total
PROPOSED PROJECT														
Multifamily Housing (Mid-Rise)	TAG [e]	218 DU	0.31	23%	77%	0.30	61%	39%	16	52	68	40	25	65
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*(1)*	*(1)*	*(4)*	*(2)*	*(6)*
Net External Vehicle Trips									16	51	67	36	23	59
Family Affordable Housing (Outside TPA Area)	TAG	28 DU	0.55	40%	60%	0.43	55%	45%	6	9	15	7	5	12
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*0*	*0*	*0*	*(1)*	*0*	*(1)*
Net External Vehicle Trips									6	9	15	6	5	11
Supermarket	850	28.84 KSF	2.86	59%	41%	8.95	50%	50%	48	34	82	129	129	258
Less: Internal Capture [b]				*2.3%*	*2.3%*		*9%*	*9%*	*(1)*	*(1)*	*(2)*	*(12)*	*(12)*	*(24)*
Less: Walk/Bike/Transit Trip Adjustment [c]				*5%*	*5%*		*5%*	*5%*	*(2)*	*(2)*	*(4)*	*(6)*	*(6)*	*(12)*
Total Driveway Trips									45	31	76	111	111	222
Less: Pass-by [d]			*40%*			*40%*			*(18)*	*(12)*	*(30)*	*(44)*	*(44)*	*(88)*
Net External Vehicle Trips									27	19	46	67	67	134
TOTAL DRIVEWAY TRIPS									67	91	158	153	139	292
TOTAL PROJECT EXTERNAL VEHICLE TRIPS									49	79	128	109	95	204
EXISTING USE CREDIT														
State Motor Vehicles Department	731	20.15 KSF	5.33	58%	42%	5.2	38%	62%	62	45	107	40	65	105
Net External Vehicle Trips									62	45	107	40	65	105
TOTAL EXISTING USE CREDIT									62	45	107	40	65	105
NET INCREMENTAL EXTERNAL TRIPS									-13	34	21	69	30	99

Notes:

[a] Source: Institute of Transportation Engineers (ITE), *Trip Generation, 11th Edition* , 2021, or LADOT *Transportation Assessment Guildelines* (TAG), 2022, unless otherwise noted.

[b] Internal capture represents the percentage of trips between land uses that occur within the site. It is informed by MXD 2.0 Mixed Use Trip Generation Methodology, which incorporated the findings of NCHRP Project 8-51 as described in "Improved Estimation for Internal Trip Capture for Mixed-use Developments," ITE Journal, August 2010.

[c] Walk/bike/transit trip adjustment applied to account for the percentage of project trips that occur by walking, biking, or transit. The walk/bike/transit trip adjustment factor applied was determined based on guidance provided in LADOT's *Transportation Assessment Guidelines* (TAG), August 2022.

[d] Pass-by trip adjustment applied to account for the percentage of trips that would already be on the adjacent roadway but make a stop by the Project Site. The pass-by rate applied was determined based on guidance provided in Attachment J of the TAG. Supermarket applied rate: 40%.

[e] Overall rates obtained from TAG. In/Out percentages obtained from ITE Land Use Code 221, Not Close to Rail Transit, General Urban/Suburban.

CITY OF LOS ANGELES VMT CALCULATOR Version 1.4

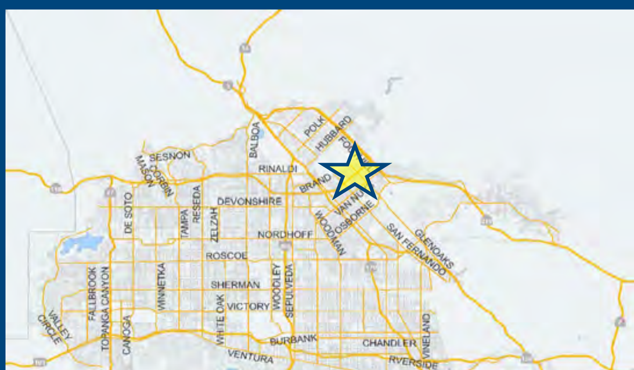
Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 11623 Glenoaks

Scenario: Project

Address: 11623 N GLENOAKS BLVD, 91331



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ◉ No

Existing Land Use

Land Use Type	Value	Unit
Office | General Office		ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | Supermarket	28.835	ksf
Housing | Multi-Family	218	DU
Retail | Supermarket	28.835	ksf
Housing | Affordable Housing - Family	28	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	**3,697** Daily Vehicle Trips
0 Daily VMT	**33,771** Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	3,697 Net Daily Trips
The net increase in daily VMT ≤ 0	33,771 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	28.835 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

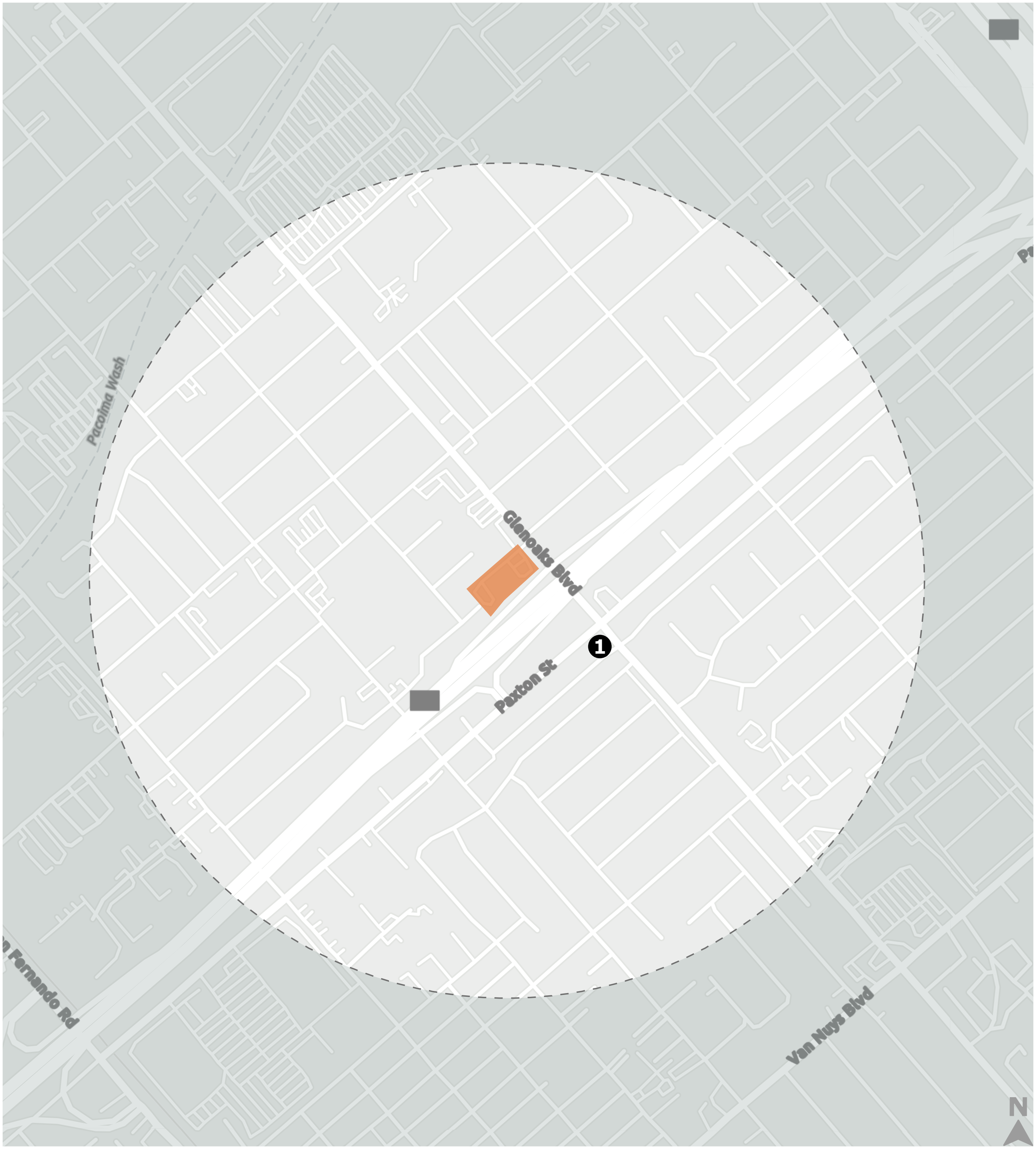
Figure 2

1/29/2024

Table 2: Related Projects

ID	Project Title	Project Address	Land Use	Size	Trip Generation Estimates [a]					
					AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1	Starbucks Drive-Thru Only	13100 Paxton Street	Retail	.9 ksf	67	68	135	17	16	33

ksf = one thousand square feet
[a] Based on information provided by LADOT on January 2, 2024.



Project Site

Related Projects

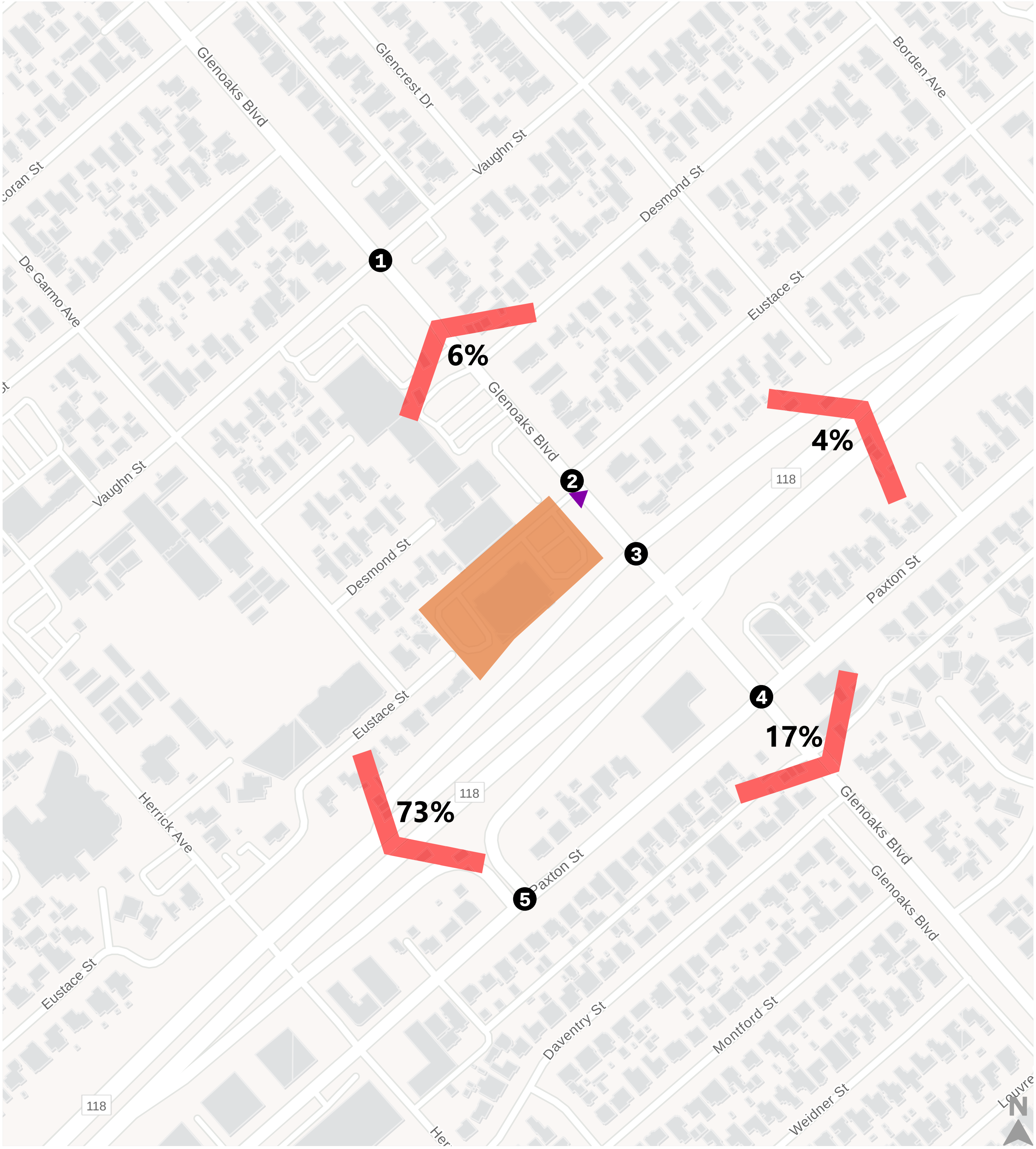
1/2 mile radius from Project Site

Figure 3

Related Projects

Figure 4

Study Intersections



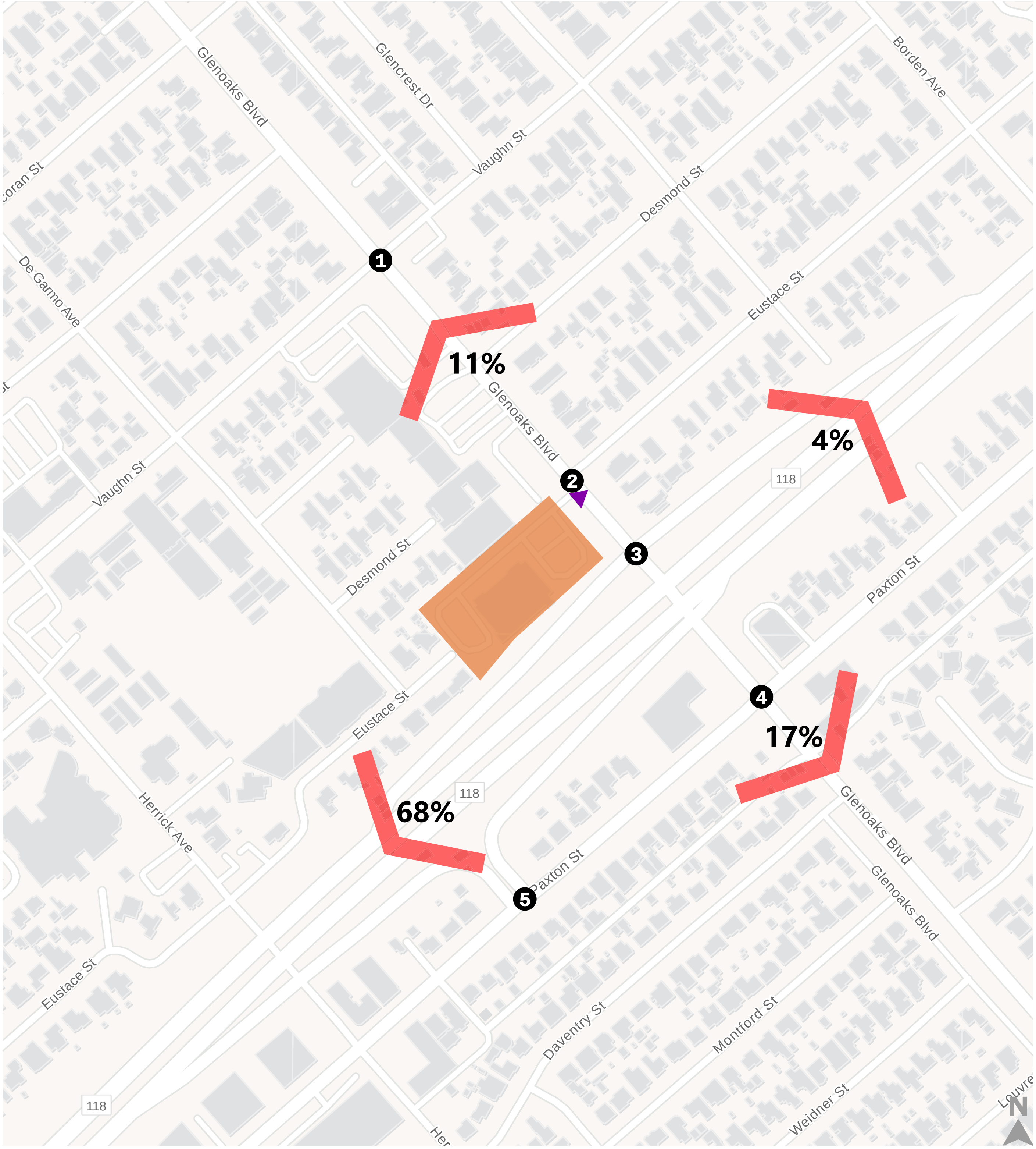
Project Site

Study Intersections

Project Driveway

Figure 5

Project Trip Distribution (AM)



Project Site
Study Intersections
Project Driveway

Figure 6

Project Trip Distribution (PM)

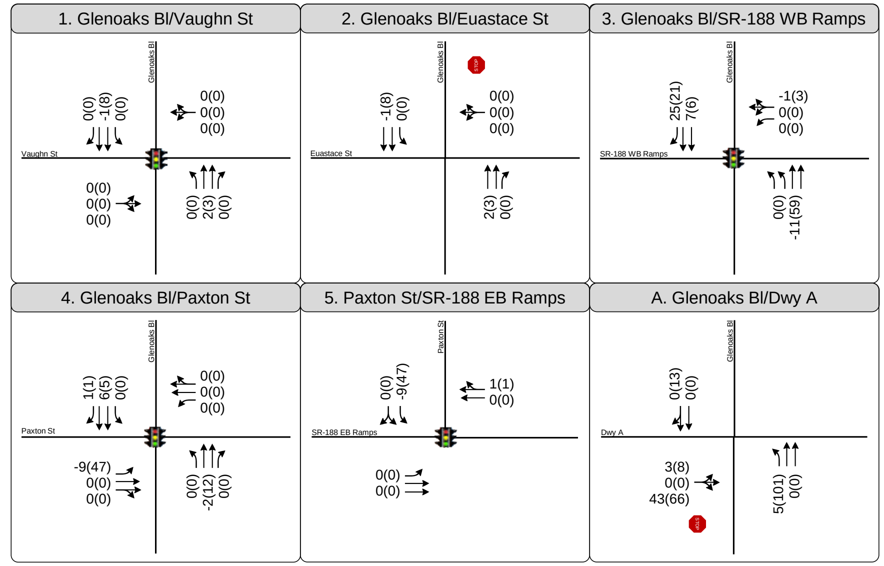
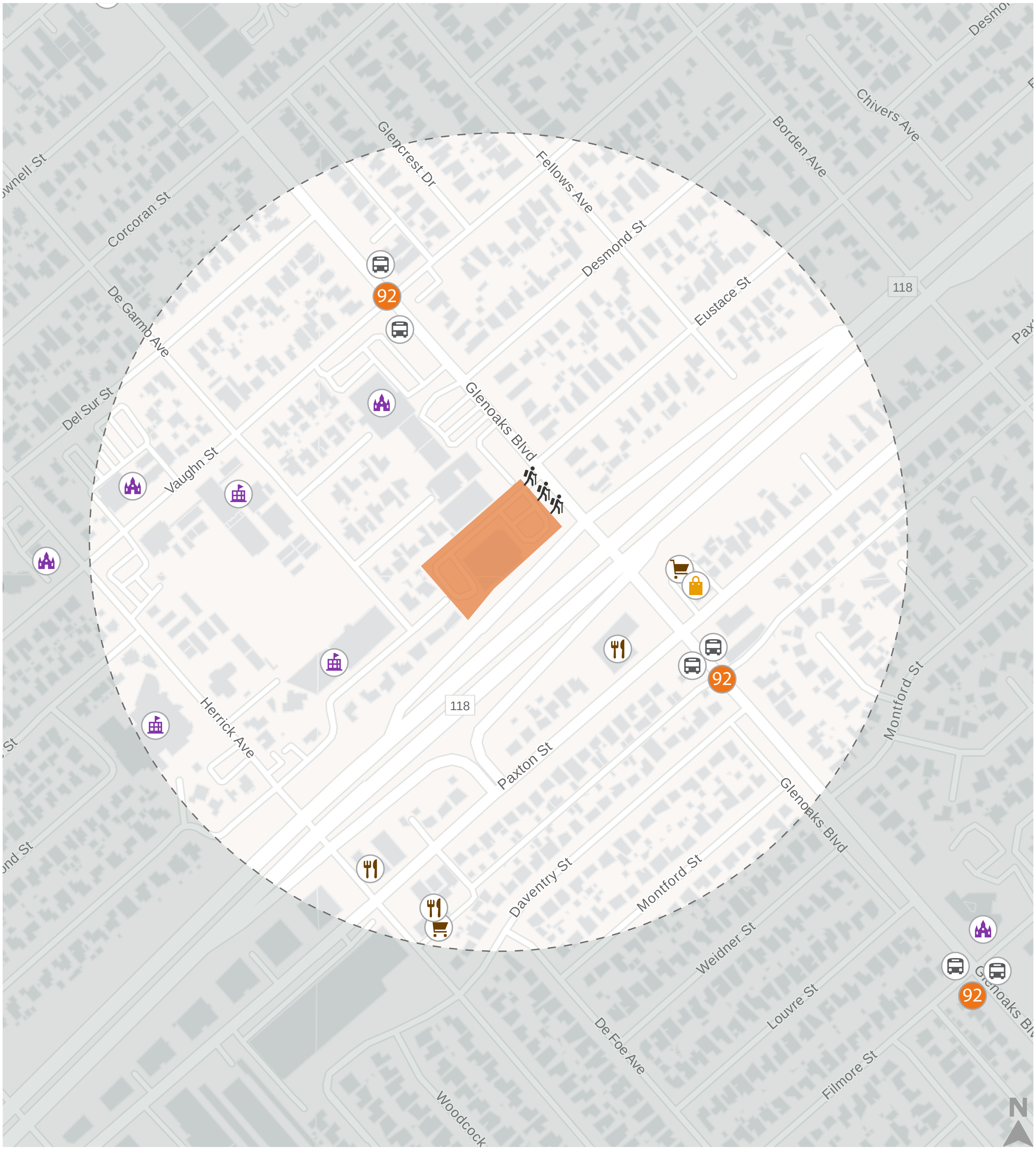


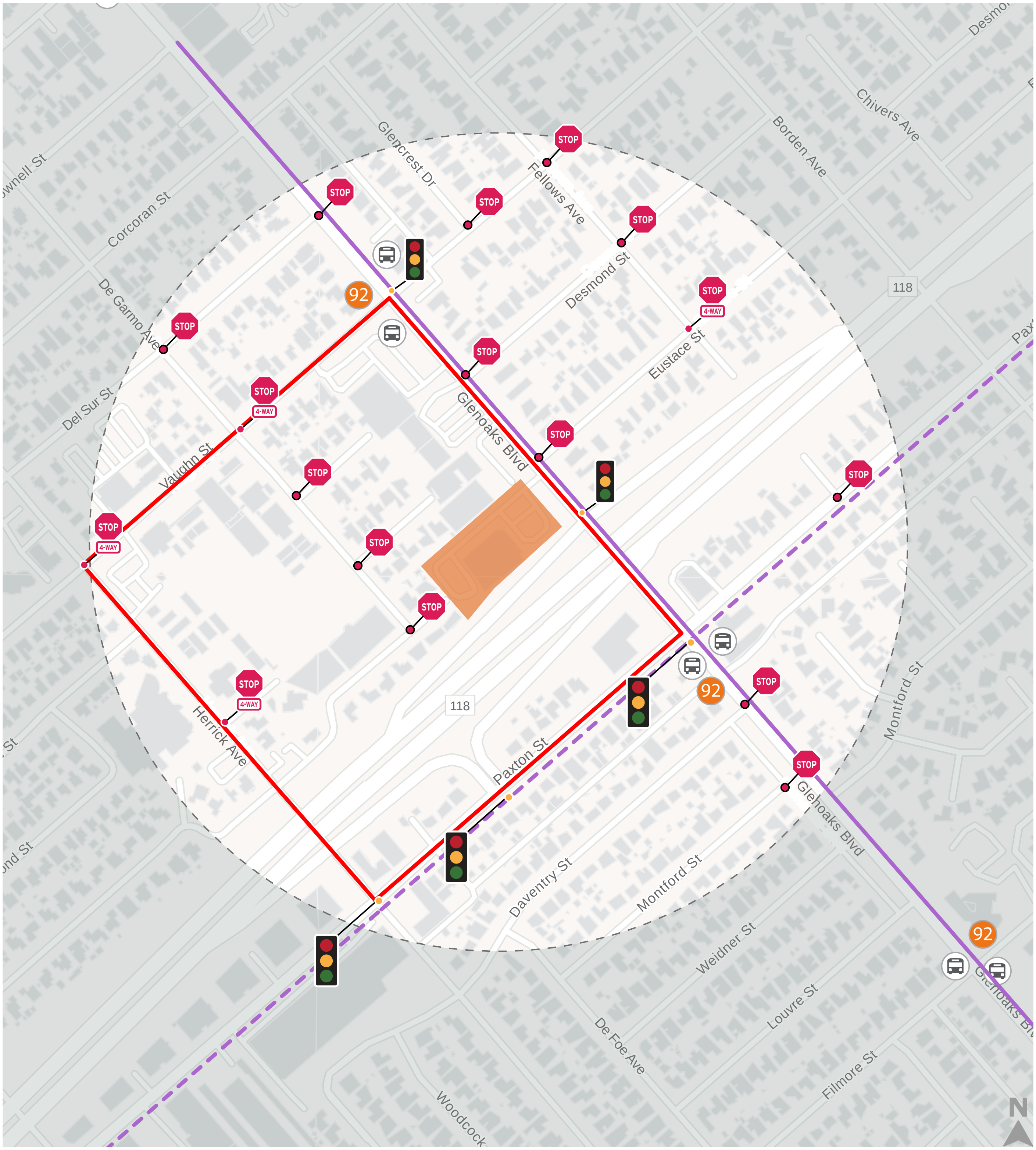
Figure 7
11623 Glenoaks Project
Project Only Volumes AM(PM)



Project Site
1/4 mile radius from Project Site
Site Pedestrian Entrance
Metro Stops (with route #)
Places of Worship
Convenience Store
Restaurant
School
Market/Grocery Store

Figure 8

Pedestrian Attractors Inventory



Project Site
1/4 mile radius from Project Site
Metro Stops (with route #)
High Injury Network
/ Existing/Planned Class II Bikeway
Traffic Control Devices
STOP

Figure 9

Facilities Inventory

Los Angeles Department of Water & Power

ladwp.com

Attachment A

BILL DATE
Aug 9, 2023

ACCOUNT NUMBER
172 025 5194

DATE DUE
Aug 28, 2023

AMOUNT DUE
$ 8,018.26

CUSTOMER SERVICE – 7:00 am - 6:00 pm
1-800-499-8840

STATE OF CALIFORNIA DEPT OF MOTOR VEHICLES,
11623 GLENOAKS BLVD, PACOIMA, CA 91331

Paying Your Bill

AUTOMATIC PAYMENT
Automatically pay from your checking or savings by logging in at *www.ladwp.com/combillpay*

ONLINE
Pay from your checking or savings any time by logging in at *www.ladwp.com/myaccount*

BY PHONE
Pay from your checking or savings any time by calling 1-877-MYPAYDWP (1-877-697-2939)

BY MAIL
Place your payment stub and your check or money order in the envelope provided with the bill.

IN PERSON
Via payment drop box

The 2021 Power Content Label is included in this bill.

Account Summary

Previous Account Balance		$ 10,955.57
Payment Received 8/3/23	*Thank you*	-10,955.57
Remaining Balance		$ 0.00
New Charges		+ 8,018.26
	Total Amount Due	**$ 8,018.26**

Summary of New Charges

Details on following pages.

Los Angeles Department of Water and Power Charges

LADWP 800-499-8840

Electric Charges	7/10/23 - 8/9/23	22,480 kWh	$6,133.05
Water Charges	136 HCF		$1,213.54
		Total LADWP Charges	**$ 7,346.59**

LADWP provides billing services for the Bureau of Sanitation. All money collected for the services listed in the City of Los Angeles Bureau of Sanitation Charges section is forwarded to them.

City of Los Angeles Bureau of Sanitation Charges

LA Sanitation 800-773-2489

Sewer Charges	7/10/23 - 8/9/23	$671.67
	Total Sanitation Charges	**$ 671.67**

Total New Charges $ 8,018.26

PLEASE KEEP THIS PORTION FOR YOUR RECORDS. IF PAYING IN PERSON, BRING ENTIRE BILL TO CUSTOMER SERVICE CENTER.

PLEASE RETURN THIS PORTION WITH YOUR PAYMENT, MAKING SURE THE RETURN ADDRESS SHOWS IN THE ENVELOPE WINDOW.

Los Angeles Department of Water & Power

P.O. Box 30808 • Los Angeles, CA 90030-0808

ELECTRONIC SERVICE REQUESTED

THIS IS YOUR BILL

ACCOUNT NUMBER
172 025 5194

DATE DUE	Aug 28, 2023
AMOUNT DUE	$ 8,018.26

STATE OF CALIFORNIA DEPT OF MOTOR VEHICLES
C/O ACCTS PAYABLE F109
PO BOX 932382
SACRAMENTO CA 94232-3820

Please enter amount enclosed

$

Write account number on check or money order and make payable to LADWP.

172025519400000000008018265

Appendix B:
Transportation Analysis Guidelines Screening Responses and Supporting Analysis

Appendix B: Transportation Analysis Guidelines Screening Responses and Supporting Analysis

Adapted from Transportation Analysis Guidelines, LADOT, August 2022

Screening Criteria	Screening Evaluation	Analysis Required?
2.1 CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES		
If the project requires a discretionary action, and the answer is yes to any of the following questions, further analysis will be required to assess whether the proposed project would conflict with plans, programs, ordinances, or policies: 1. Does the project require a discretionary action that requires the decision maker to find that the decision substantially conforms to the purpose, intent and provisions of the General Plan? 2. Is the project known to directly conflict with a transportation plan, policy, or program adopted to support multimodal transportation options or public safety? 3. Is the project required to or proposing to make any voluntary modifications to the public right-of-way (i.e., dedications and/or improvements in the right-of-way, reconfigurations of curb line, etc.)?	1. Yes 2. No 3. Yes	Yes, see Chapter 3.1 and Appendix C

<table>
<tr><th colspan="3">2.2 CAUSING SUBSTANTIAL VEHICLE MILES TRAVELED</th></tr>
<tr><td>If the project requires a discretionary action, and the answer is no to either T-2.1-1 or T-2.1-2, further analysis will not be required for Threshold T-2.1, and a “no impact” determination can be made for that threshold:

1. T-2.1-1: Would the land use project generate a net increase of 250 or more daily vehicle trips?
2. T-2.1-2: Would the project generate a net increase in daily VMT?

In addition to the above screening criteria, the portion of, or the entirety of a project that contains small-scale or local serving retail uses are assumed to have less than significant VMT impacts. If the answer to the following question is no, then that portion of the project meets the screening criteria and a no impact determination can be made for the portion of the project that contains retail uses. However, if the retail project is part of a larger mixed-use project, then the remaining portion of the project may be subject to further analysis in accordance with the above screening criteria. Projects that include retail uses in excess of the screening criteria would need to evaluate the entirety of the project’s vehicle miles traveled, as specified in Section 2.2.4.

3. If the project includes retail uses, does the portion of the project that contain retail uses exceed a net 50,000 square feet?

Independent of the above screening criteria, and the project requires a discretionary action, further analysis will be required if the following statement is true:

4. Would the Project or Plan located within a one-half mile of a fixed-rail or fixed-guideway transit station replace an existing number of residential units with a smaller number of residential units?</td><td>1. Yes
2. Yes
3. No
4. No</td><td>Yes, see Chapter 3.2</td></tr>
<tr><th colspan="3">2.3 SUBSTANTIALLY INDUCING ADDITIONAL AUTOMOBILE TRAVEL</th></tr>
<tr><td>If the answer is no to the following question, further analysis will not be required for Threshold T-2.2, and a no impact determination can be made for that threshold:

1. T-2.2: Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)?</td><td>1. No</td><td>No</td></tr>
</table>

<table>
<tr><td colspan="3">2.4 SUBSTANTIALLY INCREASING HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE</td></tr>
<tr><td>If the project requires a discretionary action, and the answer is "yes" to either of the following questions, further analysis will be required to assess whether the project would result in impacts due to geometric design hazards or incompatible uses:

1. Is the project proposing new driveways, or introducing new vehicle access to the property from the public right-of-way?
2. Is the project proposing to, or required to make any voluntary or required, modifications to the public right-of-way (i.e., street dedications, reconfigurations of curb line, etc.)?
3. Does the land use project involve a discretionary action that would be under review by the Department of City Planning?
4. Would the land use project generate a net increase of 250 or more daily vehicle trips?
5. Would the land use project add 25 or more trips to any off-ramp in either the morning of afternoon peak hour?</td><td>1. No
2. Yes
3. Yes
4. Yes
5. Yes</td><td>Yes, see Chapter 3.3</td></tr>
<tr><td colspan="3">3.2 PEDESTRIAN, BICYCLE, AND TRANSIT ACCESS ASSESSMENT</td></tr>
<tr><td>If the answer is yes to all of the following questions, further analysis will be required to assess whether the project would negatively affect existing pedestrian, bicycle, or transit facilities:

1. Does the land use project involve a discretionary action that would be under review by the Department of City Planning?
2. Does the land use project include the construction, or addition of:
a. 50 dwelling units or guest rooms or combination thereof, or
b. 50,000 square feet of non-residential space?
3. Would the project generate a net increase of 1,000 or more daily vehicle trips, or is the project's frontage along an Avenue, Boulevard, or Collector (as designated in the City's General Plan) 250 linear feet or more, or is the project's building frontage encompassing an entire block along an Avenue or Boulevard (as designated in the City's General Plan)?</td><td>1. Yes
2. Yes (a.)
3. Yes</td><td>Yes, see Chapter 4.1</td></tr>
<tr><td colspan="3">3.3 PROJECT ACCESS, SAFETY, AND CIRCULATION EVALUATION</td></tr>
</table>

Land Use Development Projects: For land use projects, if the answer is yes to all of the following questions, further analysis will be required to assess whether the project would negatively affect project access and circulation: 1. Does the land use project involve a discretionary action that would be under review by the Department of City Planning? 2. Would the land use project generate a net increase of 500 or more daily vehicle trips?	1. Yes 2. Yes	Yes, see Chapter 4.2
3.4 PROJECT CONSTRUCTION		
If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation: 1. Would a project that requires construction activities to take place within the right-of-way of a Boulevard or Avenue (as designated in the Mobility Plan 2035) which would necessitate temporary lane, alley, or street closures for more than one day (including day and evening hours, and overnight closures if on a residential street?) 2. Would a project require construction activities to take place within the right-of-way of a Collector or Local Street (as designated in the Mobility Plan 2035) which would necessitate temporary lane, alley, or street closures for more than seven days (including day and evening hours, and including overnight closures if on a residential street)? 3. Would in-street construction activities result in the loss of regular vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units? 4. Would in-street construction activities result in the loss of regular ADA pedestrian access to an existing transit station, stop, or facility (e.g., layover zone) during revenue hours? 5. Would in-street construction activities result in the temporary loss for more than one day of an existing bus stop or rerouting of a bus route that serves the project site? 6. Would construction activities result in the temporary removal and/or loss of on-street metered parking for more than 30 days? 7. Would the project involve a discretionary action to construct new buildings or additions of more than 1,000 square feet that require access for hauling construction materials and equipment from streets of less than 24-feet wide in a hillside area?	1. Yes 2. No 3. No 4. No 5. No 6. No 7. No	Yes, see Chapter 4.4

3.5 RESIDENTIAL STREET CUT-THROUGH ANALYSIS		
Land Use Development Projects: If the answer is yes to all of the following questions, further analysis may be required to assess whether the project would negatively affect residential streets: 1. Would the project generate a net increase of 250 or more daily vehicle trips? 2. Does the land use project include a discretionary action that would be under review by the Department of City Planning? In addition, for development projects, when selecting residential street segments for analyses during the transportation assessment scoping process, all of the following conditions must be present: 3. The project is located along a currently congested Boulevard or Avenue and adds trips that may lead to trip diversion to parallel routes along residential Local Streets. The congestion level of the Boulevard or Avenue can be determined based on the estimated peak hour LOS under project conditions of the study intersection(s) (as determined in Section 3.3). LOS E and F are considered to represent congested conditions; 4. The project is projected to add a substantial amount of automobile traffic to the congested Boulevard(s), Avenue(s), or Collector(s) that could potentially cause a shift to alternative route(s); and 5. Nearby local residential street(s) (defined as Local streets as designated in the City's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. LADOT has discretion to define which routes are viable alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, etc.	1. Yes 2. Yes 3. No 4. No 5. No	No

Appendix C:
Plans, Programs, Ordinances and Policies Review

Appendix C: Detailed Responses in Support of Determining Potential Conflicts with Adopted Plans, Programs, Ordinances, or Policies

Per the TAG, the following questions help address potential conflicts with the identified relevant plans, policies, and programs.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
A. Mobility Plan 2035 PROW Classification Standards for Dedications and Improvements			
The following questions address the potential for projects to conflict with or preclude the implementation of the City's Mobility Plan 2035 Street Designations:			
A.1	Does the project include additions or new construction along a street designated as a Boulevard I, and II, and/or Avenue I, II, or III on property zoned for R3 or less restrictive zone?	MP 2.1, 2.3, 3.2, and Mobility Plan 2035 Street Designations and Standard Roadway Dimensions	Yes, the Project will involve new construction along Glenoaks Boulevard (designated as Boulevard II).
A.2	If A.1 is yes, is the project required to make additional dedications or improvements to the Public Right of Way as demonstrated by the street designation?		No, the Project is not required to make additional dedications to the public right-of-way along Glenoaks Boulevard. There is an existing 110' of right-of-way, which is to City standards.
A.3	If A.2 is yes, is the project making the dedications and improvements as necessary to meet the designated dimensions of the fronting street (Boulevard I, and II, or Avenue I, II, or III)?		N/A. The Project is not required to provide dedications along Glenoaks Boulevard.
A.4	If the answer to A.3. is NO, is the project applicant asking to waive from the dedication standards?		This question is not applicable because the Project application is not requesting to waive from the *Mobility Plan 2035* Street Designations and Standard Roadway Dimensions standards.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
Therefore, the Project would not conflict with the aforementioned Mobility Plan 2035 policies.			
B. Mobility Plan 2035 PROW Policy Alignment with Project-Initiated Changes			
The following questions address the potential for project driveways and public right-of-way improvements to conflict with or preclude the implementation of the City's Mobility Plan 2035 Street Designations and Standard Driveway Dimensions.			
B.1	Does the project physically modify the curb placement or turning radius and/or physically alter the sidewalk and parkways space that changes how people access a property?	MP 2.1, 2.3, 2.10, 3.2, 3.5, 4.1, 5.1, 5.4, and Street Designations and Standard Roadway Dimensions	The Project would maintain the sidewalks around the perimeter of the Project Site and provide pedestrian access points along Glenoaks Boulevard. The Project would be not preclude or conflict with Mobility Plan 2035 policies, such as: 2.1 Adaptive Reuse of Streets: The Project would not alter adjacent streets or the right-of-way in a manner that would preclude or conflict future changes by various City Departments. 2.3 Pedestrian Infrastructure: The Project would not narrow or remove pedestrian facilities. 2.4 Neighborhood Enhanced Network (NEN): The Project does not front any streets on the NEN. 2.10 Loading Areas: The Project would provide loading spaces on-site. 3.2 People with Disabilities: The Project would be consistent with this policy by maintaining ADA compliance and ensuring that pathways are free of obstacles along the Project frontage. 3.5 Multimodal Features: Glenoaks Boulevard is part of the Transit Enhanced Network as a Moderate Transit Enhanced Street, and the Bicycle Lane Network as a Tier 2 Bicycle Lane. The Project would support multimodal travel by maintaining the existing sidewalks and providing on-site bike parking. It is also located near to bus stops serving LA Metro Line 92, which provides all-day service, seven days a week. 3.8 Bicycle Parking: The Project supports this policy by providing bicycle parking, including 292 bicycle parking stalls (14 short-term and 248 long-term for the residential component and 14 short-term and 16 long-term for the commercial component). 4.1 New Technologies: This policy supports new technology systems and infrastructure to expand access to transportation choices. The Project does not propose elements that would limit or preclude the City's ability to offer or introduce new technology systems or infrastructure. 5.1 Sustainable Transportation: As mentioned for policies 3.5 and 3.8, the Project would encourage the development of a sustainable transportation system with its provision of bicycle parking and proposed development near transit. 5.4 Clean Fuels and Vehicles: The Project will provide 97 EV parking spaces, approximately 30% of new construction total. This investment in zero-emissions vehicle infrastructure supports a reduction in local air pollution, including exposure to pedestrians around the Project Site.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
B.2	Does the project add new driveways along a street designated as an Avenue or a Boulevard that conflict with LADOT's Driveway Design Guidelines?	MP 2.10, PL.1, CDG 2,	Mobility Plan 2035 policy PL.1 encourages vehicular access from non-arterial streets (or alleys) and redesigning access points to be more pedestrian friendly. The Project provides vehicular access off Glenoaks Boulevard (Boulevard II). Access is provided along Glenoaks Boulevard due to the Project Site only having street frontage along Glenoaks Boulevard due to freeway on-ramp constraints. The Project would not add new driveways. The driveway would comply with all driveway design guidelines and intersect at right angles.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
B.2.1	Would the physical changes in the public right of way or new driveways that conflict with LADOT's *Driveway Design Guidelines* degrade the experience of vulnerable roadway users such as modify, remove, or otherwise negatively impact existing bicycle, transit, and/or pedestrian infrastructure?	*Mobility Plan 2035*: Transit Enhanced Network, Bicycle Enhanced Network, Bicycle Lane Network, Pedestrian Enhanced District, Neighborhood Enhanced Network, High Injury Network, TOC Guidelines	No, the physical changes in the public right-of-way would not degrade the experience of vulnerable roadway users. While the Project's driveway would be located on Glenoaks Boulevard, the Project would not add driveways. The Project does not propose to shift or narrow sidewalks and will provide pedestrian access points along Glenoaks Boulevard. The Project also includes on-site bike parking such that the Project will be supportive of and not preclude or conflict with *Mobility Plan 2035* Policies such as: Pedestrian Infrastructure: *Mobility Plan 2035* identifies Pedestrian Enhanced Districts (PED) where initial analysis suggests arterials can be improved and further analysis and prioritization would occur as funding and projects become available. The Project does not front any PED street segments, therefore it would not preclude the City from enacting future PED projects. Neighborhood Enhanced Network: The Neighborhood Enhanced Network (NEN) is a selection of local streets to provide comfortable and safe routes for localized travel of slower-moving modes, such as walking or biking. The Project does not front any NEN streets, therefore it would not preclude the City from enacting future NEN projects. Transit Network: This policy identifies specific streets as part of the Transit Enhanced Network (TEN) to receive improvements that enhance the performance and reliability of existing and future bus services. Glenoaks Boulevard is part of the TEN – Moderate Transit Enhanced Street. The Project would not preclude the City's ability to enhance transit performance and reliability along this street. Bicycle Networks: This policy establishes a Bicycle Enhanced Network (BEN) and Bicycle Lane Network (BLN), which are comprised of bicycle facilities for a variety of users. Glenoaks Boulevard along the Project Site is part of the BLN as a Tier 2 Bicycle Lane and has a Class II bike lane installed. The Project would not conflict with the existing bicycle facility. Vision Zero: The Project Site is located along Glenoaks Boulevard, which is identified as part of the City's High-Injury Network (HIN). The Project would not conflict with the implementation of future Vision Zero projects in the public right-of-way. Transit Oriented Community: The Transit-Oriented Community (TOC) guidelines define parameters of housing incentives based on considerations such as proximity to high-quality transit, type of housing, and the land uses being replaced. The Project is not in a TOC zone. The Project is served by one bus line along Glenoaks Boulevard.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
B.2.2	Would the physical modifications or new driveways that conflict with LADOT's Driveway Design Guidelines preclude the City from advancing the safety of vulnerable roadway users?		No, the Project's driveways on Glenoaks Boulevard would not conflict with driveway design guidelines and thus would not preclude the City from advancing the safety of vulnerable roadway users. The Project would shift the one existing driveway on Glenoaks Boulevard northwest to the property line. And would be designed to conform with the LADOT's Driveway Design Standards. The driveway egress will include right-turn-only signage.
Therefore, the Project's proposed driveways would not conflict with the aforementioned Mobility Plan 2035 and LADOT policies.			
C. Network Access			
The following questions address the potential for projects to conflict with established Mobility Plan 2035 policies to preserve and/or enhance street network access.			
C1.1	Does the project propose to vacate or otherwise restrict public access to a street, alley, or public stairway?	MP 3.9	The Project does not propose to vacate or otherwise restrict public access to a street, alley, or public stairway. Public access to, from, and within the Project Site will be maintained and enhanced for pedestrian connectivity.
C.1.2	If the answer to C.1.1 is Yes, will the project provide or maintain public access to people walking and biking on the street, alley, or stairway?		This question is not applicable, as the Project does not propose to vacate or otherwise restrict public access to a street, alley, or public stairway. Therefore, the Project does not conflict with this policy.
C.2.1	Does the project create a cul-de-sac or is the project located adjacent to an existing cul-de-sac?	MP 3.10	No, the Project does not create a cul-de-sac nor is it located adjacent to an existing cul-de-sac.
C.2.2	If yes, will the cul-de-sac maintain convenient and direct public access to people walking and biking to the adjoining street network?		This question is not applicable as the Project does not propose creating a new cul-de-sac and is not located adjacent to an existing cul-de-sac. Therefore, the Project does not conflict with this policy.
Therefore, the Project would not conflict with these policies by reducing public street access.			

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
D. Parking Supply and Transportation Demand Management			
The following questions address the potential for projects' parking supply to conflict with established Mobility Plan 2035 goals.			
D.1	Would the project propose a supply of onsite parking that exceeds the baseline amount as required in the Los Angeles Municipal Code or a Specific plan, whichever requirement prevails?	MP 3.8, 4.8, 4.13	4.13 Parking and Land Use Management: The objective of this policy is to balance parking supply with other transportation and land use objectives. The policy states that an oversupply of parking can undermine broader regional goals of creating vibrant public spaces and a robust multimodal transportation system; that an abundance of free parking incentivizes automobile trips and makes alternative modes of transportation less attractive; and that large parking lots consume land that could be used for other valuable uses and discourage walking by increasing the distance between services and facilities. Per LAMC baseline requirements, the Project would be required to provide 346 vehicle parking stalls. After factoring in affordable housing incentives, the Project is required to provide 246 residential parking stalls and 58 commercial parking stalls. The Project proposes to provide 320 parking stalls located in three separate parking structures – 8% less than the LAMC baseline. Therefore, the Project would not provide onsite parking that exceeds baseline LAMC code requirements and does not conflict with this policy. The Project does not conflict with the portion of MP 4.13 that discourages utilizing land for parking that could have been used for other valuable uses since the parking supply does not exceed the baseline amount and would be located in a subterranean garage. Therefore, the Project does not contribute to an abundance of freely available public parking and does not conflict with this policy. The Project includes features to encourage walking and bicycling, including 292 bicycle parking stalls (14 short-term and 248 long-term for the residential component and 14 short-term and 16 long-term for the commercial component). Additionally, the Project would be consistent with the applicable goals and objectives of the SCAG 2020-2045 RTP/SCS (SCAG, 2020) to locate jobs and housing in infill locations served by public transportation and facilitating active transportation. Therefore, the Project would not undermine broader regional goals of creating vibrant public spaces and a robust multimodal transportation system, and would not conflict with this policy.

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
D.2	If the answer to D.1. is YES, would the project propose to actively manage the demand of parking by independently pricing the supply to all users (e.g., parking cash-out), or for residential properties, unbundle the supply from the lease or sale of residential units?		Not applicable. The Project does not propose a parking supply that exceeds baseline code requirements. Therefore, the Project does not conflict with this policy.
D.3	Would the project provide the minimum on- and off-site bicycle parking spaces as required by Section 12.21 A.16 of the LAMC?		3.8 Bicycle Parking: The Project would provide on-site bicycle parking consistent with the City's Bicycle Parking Ordinance. The Project will provide parking for a total of 292 bicycles, with 28 of them being short-term and 264 of them being long-term.
D.4	Does the Project include more than 25,000 square feet of gross floor area construction of new non-residential gross floor?		Yes, the Project would include more than 25,000 square feet of gross floor area construction of new non-residential gross floor.
D.5	If the answer to D.4. is YES, does the project comply with the City's TDM Ordinance in Section 12.26 J of the LAMC?		Section 12.26-J of LAMC (TDM Ordinance): Yes, the Project would comply with the City's TDM Ordinance in Section 12.26-J of the LAMC. The Project would include the education and marketing features as noted in the Ordinance, as well as reduced parking supply, unbundled parking, and bicycle parking as required by LAMC, Therefore, the Project does not conflict with this policy.

Therefore, the Project's proposed parking supply does not conflict with the aforementioned Mobility Plan 2035 policies.

E. Consistency with Regional Plans

The following questions address the potential for projects to conflict with the SCAG Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS).

Question	Guiding Questions	Relevant Plans, Policies, and Programs	Evaluation
E.1	Does the Project or Plan apply one of the City's efficiency-based impact thresholds (i.e., VMT per capita, VMT per employee, or VMT per service population) as discussed in Section 2.2.3 of the TAG?		Yes, the Project applies the City's efficiency-based impact thresholds of VMT per capita.
E.2	E.2 If the Answer to E.1 is YES, does the Project or Plan result in a significant VMT impact?		No, the Project would not result in a significant VMT impact, per the LA VMT Calculator and significance thresholds.
E.3	If the Answer to E.1 is NO, does the Project result in a net increase in VMT?		Not applicable. The Project does not propose regionally serving uses that would result in a new increase in VMT.
E.4	If the Answer to E.2 or E.3 is YES, then further evaluation would be necessary to determine whether such a project or land use plan would be shown to be consistent with VMT and GHG reduction goals of the SCAG RTP/SCS		Not applicable. The Project would not result in a significant VMT impact and is presumed to be consistent with VMT and GHG reduction goals in the SCAG RTP/SCS.
Therefore, the Project would not conflict with the SCAG RTP/SCS.			

Notes:

1. Adapted from Attachment D: Plan Consistency Worksheet in the *Transportation Analysis Guidelines*, LADOT, August 2022.

Appendix D:
LADOT VMT Calculator Tool Reports

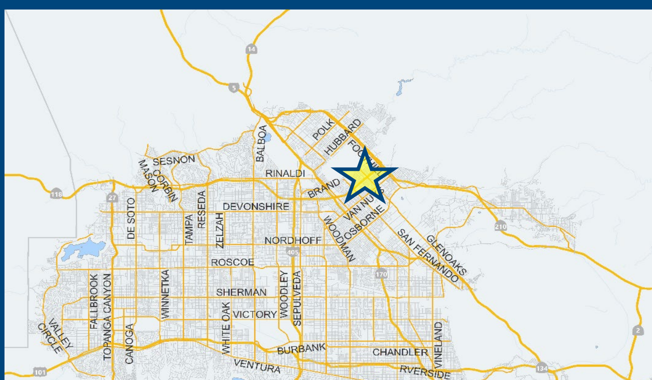
CITY OF LOS ANGELES VMT CALCULATOR Version 1.4

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 11623 Glenoaks
Scenario: Project
Address: 11623 N GLENOAKS BLVD, 91331

WWW



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ● No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU
(custom) State Motor Vehicle Department | Re	Non-Retai	LU type
(custom) State Motor Vehicle Department | Re	0	Person
(custom) State Motor Vehicle Department | Em	50	Person
(custom) State Motor Vehicle Department | Da	226	Trips
(custom) State Motor Vehicle Department | HB	53	Percent
(custom) State Motor Vehicle Department | HB	24	Percent
(custom) State Motor Vehicle Department | NH	11	Percent
(custom) State Motor Vehicle Department | HB	0	Percent
(custom) State Motor Vehicle Department | HB	0	Percent
(custom) State Motor Vehicle Department | NH	12	Percent

☑ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | Supermarket	28.881	ksf
Housing | Multi-Family	218	DU
Housing | Affordable Housing - Family	28	DU
Retail | Supermarket	28.881	ksf

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed
205 Daily Vehicle Trips	**3,702** Daily Vehicle Trips
2,356 Daily VMT	**33,821** Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	3,497 Net Daily Trips
The net increase in daily VMT ≤ 0	31,465 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	28.881 ksf

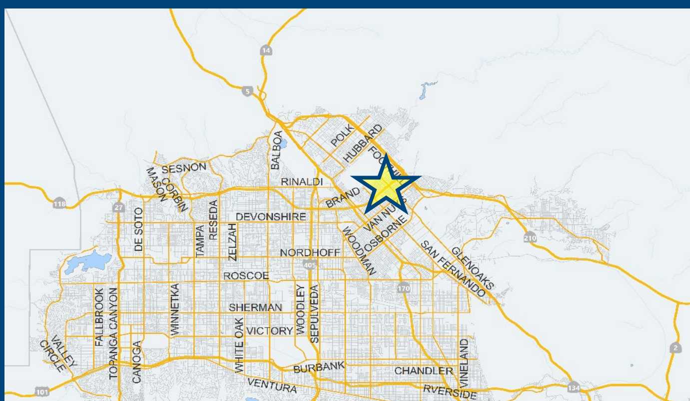
The proposed project is required to perform VMT analysis.

Measuring the Miles

CITY OF LOS ANGELES VMT CALCULATOR Version 1.4

Project Information

Project: 11623 Glenoaks
Scenario: Project
Address: 11623 N GLENOAKS BLVD, 91331



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	218	DU
Housing | Affordable Housing - Family	28	DU
Retail | Supermarket	28.881	ksf

TDM Strategies

Select each section to show individual strategies
Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

A Parking

B Transit

C Education & Encouragement

D Commute Trip Reductions

E Shared Mobility

F Bicycle Infrastructure

Implement/Improve On-street Bicycle Facility — Select Proposed Prj or Mitigation to include this strategy
☐ Proposed Prj ☐ Mitigation

Include Bike Parking Per LAMC — Select Proposed Prj or Mitigation to include this strategy
☑ Proposed Prj ☐ Mitigation

Include Secure Bike Parking and Showers — Select Proposed Prj or Mitigation to include this strategy
☐ Proposed Prj ☐ Mitigation

G Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
3,498 Daily Vehicle Trips	**3,498** Daily Vehicle Trips
32,009 Daily VMT	**32,009** Daily VMT
8.3 Household VMT per Capita	**8.3** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 9.2 15% Below APC	**Household: No** Threshold = 9.2 15% Below APC
Work: N/A Threshold = 15.0 15% Below APC	**Work: N/A** Threshold = 15.0 15% Below APC

Measuring the Miles

8/22/2024

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 22, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

Project Information

Land Use Type		Value	Units
Housing	*Single Family*	*0*	*DU*
	Multi Family	218	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	Family	28	DU
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	*0.000*	*ksf*
	Supermarket	28.881	ksf
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	*0.000*	*ksf*
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*
Other		*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: August 22, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

Analysis Results

Total Employees: 116
Total Population: 579

Proposed Project		*With Mitigation*	
3,498	**Daily Vehicle Trips**	**3,498**	**Daily Vehicle Trips**
32,009	**Daily VMT**	**32,009**	**Daily VMT**
8.3	**Household VMT per Capita**	**8.3**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?

APC: North Valley

Impact Threshold: 15% Below APC Average
Household = 9.2
Work = 15.0

Proposed Project		*With Mitigation*	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 9.2	No	Household > 9.2	No
Work > 15.0	N/A	Work > 15.0	N/A

CITY OF LOS ANGELES VMT CALCULATOR

Report 2: TDM Inputs

Date: August 22, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	346	346
		Actual parking provision (spaces)	320	320
	Unbundle parking	Monthly cost for parking ($)	$55	$55
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	*Included (within project and connecting off-site/within project only)*	*0*	*0*

CITY OF LOS ANGELES VMT CALCULATOR

Report 3: TDM Outputs

Date: August 22, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	7%	7%	0%	0%	7%	7%	0%	0%	0%	0%	0%	0%	
	Parking cash-out	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Price workplace parking	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Residential area parking permits	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Transit	Reduce transit headways	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Transit subsidies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Education & Encouragement	Voluntary travel behavior change program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Commute Trip Reductions	Required commute trip reduction program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Employer sponsored vanpool or shuttle	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Ride-share program	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Shared Mobility	Car-share	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
	School carpool program	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Neighborhood Enhancement	Traffic calming improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	TDM Strategy Appendix, Neighborhood Enhancement sections 1 - 2
	Pedestrian network improvements	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	11%	11%	4%	4%	11%	11%	4%	4%	4%	4%	4%	4%
MAX. TDM EFFECT	11%	11%	4%	4%	11%	11%	4%	4%	4%	4%	4%	4%

= Minimum (X%, 1-[(1-A)*(1-B)...])

where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)...]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,...). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: August 22, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	219	-13.2%	190	10.7	2,343	2,033
Home Based Other Production	607	-21.9%	474	7.0	4,249	3,318
Non-Home Based Other Production	932	-1.7%	916	10.4	9,693	9,526
Home-Based Work Attraction	168	-9.5%	152	13.3	2,234	2,022
Home-Based Other Attraction	1,777	-28.6%	1,268	7.2	12,794	9,130
Non-Home Based Other Attraction	717	-2.1%	702	11.1	7,959	7,792

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-10.7%	170	1,816	-10.7%	170	1,816
Home Based Other Production	-10.7%	423	2,964	-10.7%	423	2,964
Non-Home Based Other Production	-4.4%	876	9,111	-4.4%	876	9,111
Home-Based Work Attraction	-4.4%	145	1,934	-4.4%	145	1,934
Home-Based Other Attraction	-4.4%	1,213	8,732	-4.4%	1,213	8,732
Non-Home Based Other Attraction	-4.4%	671	7,452	-4.4%	671	7,452

MXD VMT Methodology Per Capita & Per Employee

Total Population: 579
Total Employees: 116
APC: North Valley

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**4,780**	**4,780**
Total Home Based Work Attraction VMT	**1,934**	**1,934**
Total Home Based VMT Per Capita	**8.3**	**8.3**
Total Work Based VMT Per Employee	**N/A**	**N/A**

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: July 19, 2024
Project Name: 11623 Glenoaks
Project Scenario: Project
Project Address: 11623 N GLENOAKS BLVD, 91331

Version 1.4

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	219	-13.2%	190	10.7	2,343	2,033
Home Based Other Production	607	-21.9%	474	7.0	4,249	3,318
Non-Home Based Other Production	932	-1.7%	916	10.4	9,693	9,526
Home-Based Work Attraction	168	-9.5%	152	13.3	2,234	2,022
Home-Based Other Attraction	1,777	-28.6%	1,268	7.2	12,794	9,130
Non-Home Based Other Attraction	717	-2.1%	702	11.1	7,959	7,792

MXD Methodology with TDM Measures

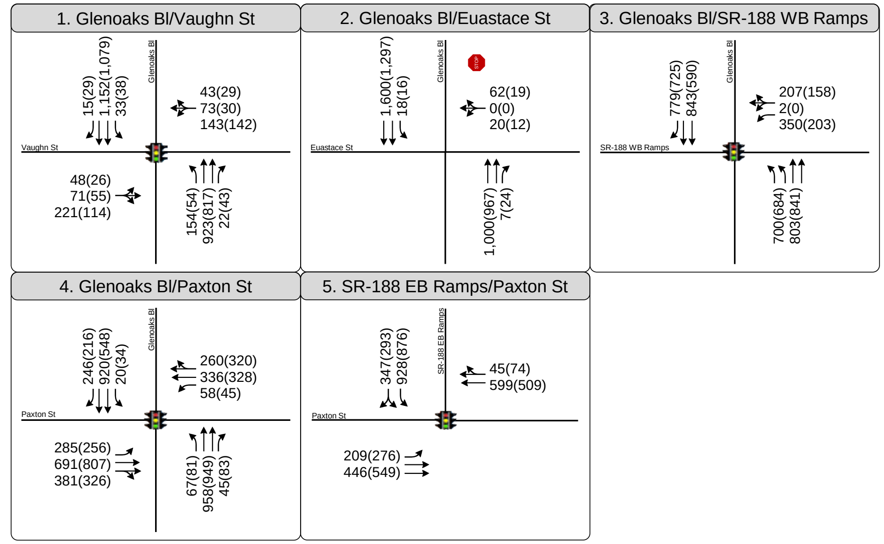
	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-10.7%	170	1,816	-10.7%	170	1,816
Home Based Other Production	-10.7%	423	2,964	-10.7%	423	2,964
Non-Home Based Other Production	-4.4%	876	9,111	-4.4%	876	9,111
Home-Based Work Attraction	-4.4%	145	1,934	-4.4%	145	1,934
Home-Based Other Attraction	-4.4%	1,213	8,732	-4.4%	1,213	8,732
Non-Home Based Other Attraction	-4.4%	671	7,452	-4.4%	671	7,452

MXD VMT Methodology Per Capita & Per Employee

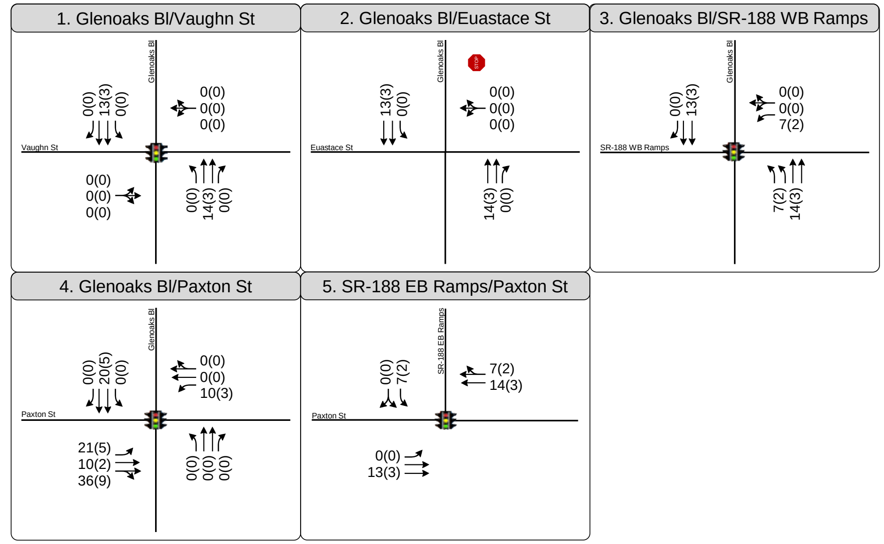
Total Population: 579
Total Employees: 116
APC: North Valley

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**4,780**	**4,780**
Total Home Based Work Attraction VMT	**1,934**	**1,934**
Total Home Based VMT Per Capita	**8.3**	**8.3**
Total Work Based VMT Per Employee	**N/A**	**N/A**

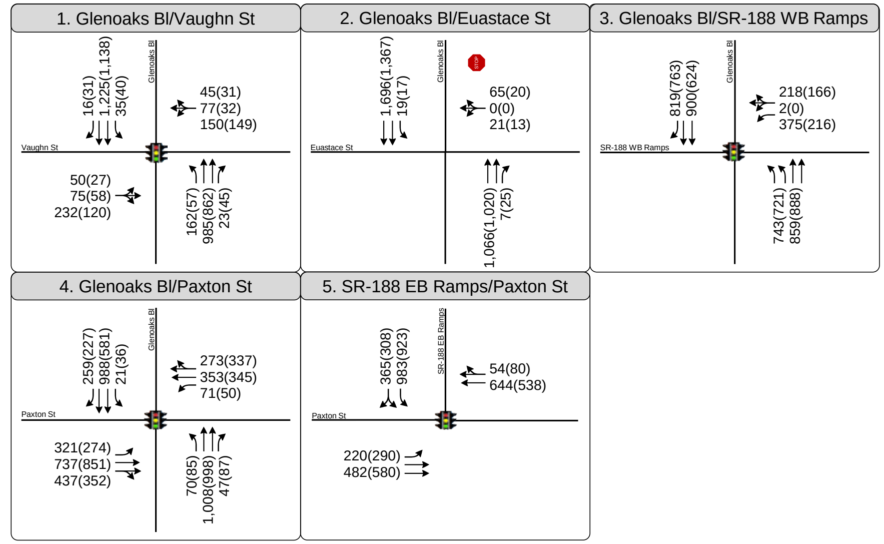
Appendix E:
Intersection Turning Movement Volumes and Lane Configurations



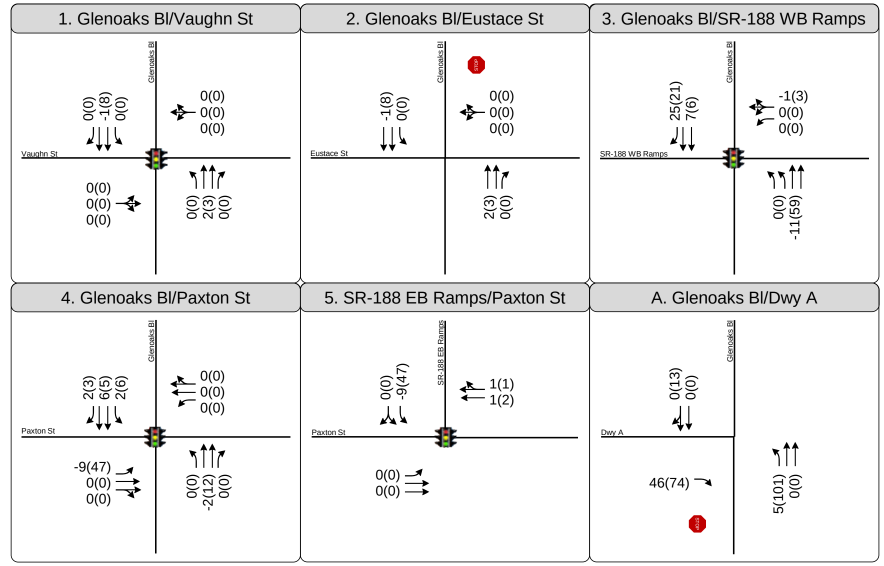
Appendix E
11623 Glenoaks Project
Existing Year (2024) Volumes AM(PM)



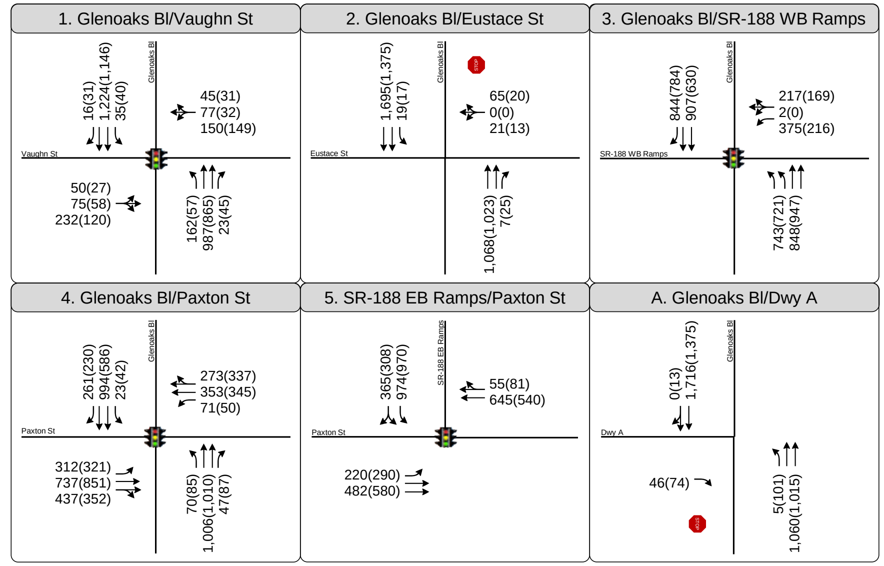
Appendix E
11623 Glenoaks Project
Related Projects Volumes AM(PM)



Appendix E
11623 Glenoaks Project
Opening Year (2027) No Project Volumes AM(PM)



Appendix E
11623 Glenoaks Project
Project Only Volumes AM(PM)



Appendix E

11623 Glenoaks Project

Opening Year (2027) Plus Project Volumes AM(PM)

Appendix F: Intersection and Driveway Queuing Results

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	71	221	143	73	43	154	923	22	33	1152	15
Future Volume (veh/h)	48	71	221	143	73	43	154	923	22	33	1152	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	52	76	157	154	78	37	166	992	11	35	1239	4
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	3	3	3	4	4	4
Cap, veh/h	103	137	237	214	99	40	232	1798	769	219	1314	502
Arrive On Green	0.28	0.28	0.28	0.28	0.28	0.28	0.03	0.17	0.17	0.38	0.38	0.38
Sat Flow, veh/h	196	482	832	532	349	141	1767	3526	1508	553	3497	1336
Grp Volume(v), veh/h	285	0	0	269	0	0	166	992	11	35	1239	4
Grp Sat Flow(s),veh/h/ln	1510	0	0	1022	0	0	1767	1763	1508	553	1749	1336
Q Serve(g_s), s	0.0	0.0	0.0	8.7	0.0	0.0	4.8	23.2	0.5	4.6	30.8	0.2
Cycle Q Clear(g_c), s	14.9	0.0	0.0	23.5	0.0	0.0	4.8	23.2	0.5	15.7	30.8	0.2
Prop In Lane	0.18		0.55	0.57		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	477	0	0	354	0	0	232	1798	769	219	1314	502
V/C Ratio(X)	0.60	0.00	0.00	0.76	0.00	0.00	0.72	0.55	0.01	0.16	0.94	0.01
Avail Cap(c_a), veh/h	483	0	0	359	0	0	389	1798	769	219	1314	502
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.3	0.0	0.0	32.0	0.0	0.0	21.8	28.0	18.6	26.9	27.2	17.6
Incr Delay (d2), s/veh	2.0	0.0	0.0	9.1	0.0	0.0	4.1	1.2	0.0	1.6	14.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	0.0	6.5	0.0	0.0	2.2	11.1	0.2	0.7	14.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	30.3	0.0	0.0	41.0	0.0	0.0	25.9	29.2	18.6	28.4	41.6	17.6
LnGrp LOS	C			D			C	C	B	C	D	B
Approach Vol, veh/h		285			269			1169			1278	
Approach Delay, s/veh		30.3			41.0			28.7			41.2	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.1	42.5		35.4		54.6		35.4				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	6.8	32.8		25.5		25.2		16.9				
Green Ext Time (p_c), s	0.3	0.0		0.1		11.3		1.2				

Intersection Summary			
HCM 7th Control Delay, s/veh			35.2
HCM 7th LOS			D

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	366	278	166	992	24	35	1239	16
v/c Ratio	0.79	1.01	0.58	0.56	0.03	0.20	1.06	0.03
Control Delay (s/veh)	34.7	91.6	26.9	17.9	0.4	26.3	73.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	34.7	91.6	26.9	17.9	0.4	26.3	73.3	0.1
Queue Length 50th (ft)	138	~157	63	196	0	14	~406	0
Queue Length 95th (ft)	#284	#320	122	280	m0	42	#583	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	465	274	370	1771	754	175	1173	537
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	1.01	0.45	0.56	0.03	0.20	1.06	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	62	1000	7	18	1600
Future Vol, veh/h	20	62	1000	7	18	1600
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	21	65	1053	7	19	1684

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1941	535	0	0	1065	0
Stage 1	1061	-	-	-	-	-
Stage 2	880	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	58	495	-	-	644	-
Stage 1	298	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	56	493	-	-	641	-
Mov Cap-2 Maneuver	56	-	-	-	-	-
Stage 1	297	-	-	-	-	-
Stage 2	360	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	45.85	0	0.12
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	171	641	-
HCM Lane V/C Ratio	-	-	0.505	0.03	-
HCM Control Delay (s/veh)	-	-	45.8	10.8	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	2.5	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	350	2	207	700	803	0	0	843	779
Future Volume (vph)	0	0	0	350	2	207	700	803	0	0	843	779
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.98
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1489		3367	3471			3505	1537
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1489		3367	3471			3505	1537
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	365	2	216	729	836	0	0	878	811
RTOR Reduction (vph)	0	0	0	0	116	0	0	0	0	0	0	356
Lane Group Flow (vph)	0	0	0	303	164	0	729	836	0	0	878	455
Confl. Peds. (#/hr)												3
Confl. Bikes (#/hr)												4
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	4%	4%	4%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				22.4	22.4		20.4	57.2			31.6	31.6
Effective Green, g (s)				22.4	22.4		20.4	57.2			31.6	31.6
Actuated g/C Ratio				0.25	0.25		0.23	0.64			0.35	0.35
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				402	370		763	2206			1230	539
v/s Ratio Prot				c0.19	0.11		c0.22	0.24			0.25	
v/s Ratio Perm												c0.30
v/c Ratio				0.75	0.44		0.96	0.38			0.71	0.84
Uniform Delay, d1				31.2	28.5		34.4	7.9			25.3	26.9
Progression Factor				1.00	1.00		1.17	0.61			0.48	0.86
Incremental Delay, d2				7.8	0.9		16.7	0.3			1.1	5.2
Delay (s)				39.1	29.4		56.9	5.2			13.3	28.4
Level of Service				D	C		E	A			B	C
Approach Delay (s/veh)		0.0			34.4			29.3			20.6	
Approach LOS		A			C			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	26.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	303	280	729	836	878	811
v/c Ratio	0.75	0.58	0.95	0.38	0.71	0.91
Control Delay (s/veh)	42.8	17.1	60.4	5.7	13.4	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	42.8	17.1	60.4	5.7	13.4	14.1
Queue Length 50th (ft)	166	61	~236	67	102	372
Queue Length 95th (ft)	240	132	m#404	m113	m72	m94
Internal Link Dist (ft)		849		394	176	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	584	764	2206	1261	904
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.48	0.95	0.38	0.70	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	285	691	381	58	336	260	67	958	45	20	920	246
Future Volume (veh/h)	285	691	381	58	336	260	67	958	45	20	920	246
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	303	735	370	62	357	227	71	1019	44	21	979	110
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	6	6	6
Cap, veh/h	361	917	461	144	529	329	277	1529	66	191	1552	676
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2116	1063	492	1904	1183	509	3390	146	514	3441	1498
Grp Volume(v), veh/h	303	607	498	62	322	262	71	526	537	21	979	110
Grp Sat Flow(s),veh/h/ln	1753	1749	1431	492	1721	1366	509	1749	1788	514	1721	1498
Q Serve(g_s), s	10.0	27.1	27.2	11.3	14.9	15.4	9.0	21.2	21.2	2.3	5.8	0.8
Cycle Q Clear(g_c), s	10.0	27.1	27.2	24.5	14.9	15.4	14.8	21.2	21.2	23.5	5.8	0.8
Prop In Lane	1.00		0.74	1.00		0.87	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	361	758	620	144	478	380	277	789	807	191	1552	676
V/C Ratio(X)	0.84	0.80	0.80	0.43	0.67	0.69	0.26	0.67	0.67	0.11	0.63	0.16
Avail Cap(c_a), veh/h	361	758	620	144	478	380	277	789	807	191	1552	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.52	0.52	0.52	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62
Uniform Delay (d), s/veh	23.1	22.1	22.2	38.9	28.9	29.0	19.7	19.4	19.4	10.1	2.7	2.5
Incr Delay (d2), s/veh	9.0	4.7	5.8	9.1	7.4	9.9	2.2	4.4	4.3	0.7	1.2	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	11.1	9.3	1.7	6.8	5.8	1.2	8.9	9.1	0.2	1.2	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.0	26.9	27.9	47.9	36.3	38.9	21.9	23.8	23.7	10.9	3.9	2.8
LnGrp LOS	C	C	C	D	D	D	C	C	C	B	A	A
Approach Vol, veh/h		1408			646			1134			1110	
Approach Delay, s/veh		28.4			38.5			23.6			3.9	
Approach LOS		C			D			C			A	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		25.5	12.0	26.5		23.2		29.2				
Green Ext Time (p_c), s		6.5	0.0	0.0		7.3		4.8				

Intersection Summary			
HCM 7th Control Delay, s/veh			22.3
HCM 7th LOS			C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	303	1140	62	634	71	1067	21	979	262
v/c Ratio	0.92	0.83	0.67	0.72	0.47	0.69	0.17	0.64	0.32
Control Delay (s/veh)	54.2	28.1	65.6	31.7	29.7	22.3	15.1	14.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (s/veh)	54.2	28.1	65.6	31.7	29.7	22.3	15.1	14.4	2.5
Queue Length 50th (ft)	111	280	31	153	27	243	5	115	9
Queue Length 95th (ft)	#242	372	#100	216	75	315	m8	154	m21
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	329	1368	93	880	152	1556	123	1536	815
Starvation Cap Reductn	0	0	0	0	0	0	0	65	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.83	0.67	0.72	0.47	0.69	0.17	0.67	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	209	446	599	45	928	347
Future Volume (vph)	209	446	599	45	928	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1734	3298	3227		3312	
Flt Permitted	0.34	1.00	1.00		0.96	
Satd. Flow (perm)	615	3298	3227		3312	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	220	469	631	47	977	365
RTOR Reduction (vph)	0	0	11	0	59	0
Lane Group Flow (vph)	220	469	667	0	1283	0
Confl. Peds. (#/hr)	2			2		
Heavy Vehicles (%)	4%	4%	5%	5%	3%	3%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	24.8	24.8	24.8		24.7	
Effective Green, g (s)	24.8	24.8	24.8		24.7	
Actuated g/C Ratio	0.41	0.41	0.41		0.41	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	254	1363	1333		1363	
v/s Ratio Prot		0.14	0.21		c0.39	
v/s Ratio Perm	c0.36					
v/c Ratio	0.87	0.34	0.50		0.94	
Uniform Delay, d1	16.1	12.0	13.0		17.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	30.5	0.7	1.3		12.9	
Delay (s)	46.5	12.7	14.4		29.8	
Level of Service	D	B	B		C	
Approach Delay (s/veh)		23.5	14.4		29.8	
Approach LOS		C	B		C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	220	469	678	1342
v/c Ratio	0.87	0.34	0.50	0.94
Control Delay (s/veh)	48.5	11.9	13.4	34.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	48.5	11.9	13.4	34.8
Queue Length 50th (ft)	62	52	79	~273
Queue Length 95th (ft)	#169	75	111	#410
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			425
Base Capacity (vph)	302	1621	1596	1424
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.73	0.29	0.42	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	55	114	142	30	29	54	817	43	38	1079	29
Future Volume (veh/h)	26	55	114	142	30	29	54	817	43	38	1079	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1841	1841	1841	1856	1856	1856
Adj Flow Rate, veh/h	27	58	56	149	32	23	57	860	25	40	1136	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	3	3	3
Cap, veh/h	85	156	127	242	46	28	292	2068	891	314	1676	647
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.02	0.20	0.20	0.48	0.48	0.48
Sat Flow, veh/h	182	767	625	850	227	137	1753	3497	1508	622	3526	1360
Grp Volume(v), veh/h	141	0	0	204	0	0	57	860	25	40	1136	13
Grp Sat Flow(s),veh/h/ln	1574	0	0	1214	0	0	1753	1749	1508	622	1763	1360
Q Serve(g_s), s	0.0	0.0	0.0	7.5	0.0	0.0	1.4	19.4	1.2	3.9	22.4	0.5
Cycle Q Clear(g_c), s	7.0	0.0	0.0	14.6	0.0	0.0	1.4	19.4	1.2	12.8	22.4	0.5
Prop In Lane	0.19		0.40	0.73		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	0	0	316	0	0	292	2068	891	314	1676	647
V/C Ratio(X)	0.38	0.00	0.00	0.65	0.00	0.00	0.19	0.42	0.03	0.13	0.68	0.02
Avail Cap(c_a), veh/h	494	0	0	422	0	0	481	2068	891	314	1676	647
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	0.0	34.4	0.0	0.0	13.5	22.6	15.3	18.7	18.3	12.5
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.2	0.0	0.0	0.3	0.6	0.1	0.8	2.2	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	4.4	0.0	0.0	0.5	9.1	0.4	0.6	8.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.0	0.0	0.0	36.6	0.0	0.0	13.8	23.2	15.4	19.6	20.5	12.6
LnGrp LOS	C			D			B	C	B	B	C	B
Approach Vol, veh/h		141			204			942			1189	
Approach Delay, s/veh		32.0			36.6			22.4			20.4	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.4	51.5		28.1		61.9		28.1				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	3.4	24.4		16.6		21.4		9.0				
Green Ext Time (p_c), s	0.1	0.1		0.8		11.0		0.7				
Intersection Summary												
HCM 7th Control Delay, s/veh			23.2									
HCM 7th LOS			C									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	205	212	57	860	45	40	1136	31
v/c Ratio	0.53	0.82	0.21	0.44	0.05	0.15	0.71	0.05
Control Delay (s/veh)	22.6	55.6	12.3	13.8	2.2	20.4	25.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.6	55.6	12.3	13.8	2.2	20.4	25.4	0.1
Queue Length 50th (ft)	60	108	16	152	0	14	282	0
Queue Length 95th (ft)	120	181	44	233	12	41	#449	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	471	327	396	1973	848	272	1602	676
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.65	0.14	0.44	0.05	0.15	0.71	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	12	19	967	24	16	1297
Future Vol, veh/h	12	19	967	24	16	1297
Conflicting Peds, #/hr	0	0	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	13	20	1007	25	17	1351

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1737	524	0	0	1040	0
Stage 1	1028	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	80	503	-	-	658	-
Stage 1	311	-	-	-	-	-
Stage 2	454	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	77	499	-	-	653	-
Mov Cap-2 Maneuver	77	-	-	-	-	-
Stage 1	308	-	-	-	-	-
Stage 2	443	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	32.95	0	0.13
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	161	653	-
HCM Lane V/C Ratio	-	-	0.201	0.026	-
HCM Control Delay (s/veh)	-	-	32.9	10.7	-
HCM Lane LOS	-	-	D	B	-
HCM 95th %tile Q(veh)	-	-	0.7	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	203	0	158	684	841	0	0	590	725
Future Volume (vph)	0	0	0	203	0	158	684	841	0	0	590	725
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.87		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1468		3433	3539			3505	1516
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1468		3433	3539			3505	1516
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	211	0	165	712	876	0	0	615	755
RTOR Reduction (vph)	0	0	0	0	113	0	0	0	0	0	0	495
Lane Group Flow (vph)	0	0	0	190	73	0	713	876	0	0	615	260
Confl. Peds. (#/hr)									1			9
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	2%	2%	2%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				16.9	16.9		28.7	62.7			28.8	28.8
Effective Green, g (s)				16.9	16.9		28.7	62.7			28.8	28.8
Actuated g/C Ratio				0.19	0.19		0.32	0.70			0.32	0.32
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				303	275		1094	2465			1121	485
v/s Ratio Prot				c0.12	0.05		c0.21	0.25			c0.18	
v/s Ratio Perm												0.17
v/c Ratio				0.63	0.27		0.65	0.36			0.55	0.54
Uniform Delay, d1				33.6	31.2		26.4	5.5			25.2	25.1
Progression Factor				1.00	1.00		1.15	0.58			0.54	3.12
Incremental Delay, d2				4.0	0.5		1.0	0.3			1.4	3.1
Delay (s)				37.7	31.8		31.4	3.5			15.1	81.4
Level of Service				D	C		C	A			B	F
Approach Delay (s/veh)		0.0			34.7			16.0			51.6	
Approach LOS		A			C			B			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	190	186	713	876	615	755
v/c Ratio	0.63	0.48	0.65	0.36	0.55	0.77
Control Delay (s/veh)	41.8	13.1	36.2	4.0	14.9	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	41.8	13.1	36.2	4.0	14.9	12.5
Queue Length 50th (ft)	107	24	184	49	105	320
Queue Length 95th (ft)	153	73	m#376	110	70	464
Internal Link Dist (ft)		849		394	176	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	566	1095	2466	1261	1012
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.33	0.65	0.36	0.49	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	256	807	326	45	328	320	81	949	83	34	548	216
Future Volume (veh/h)	256	807	326	45	328	320	81	949	83	34	548	216
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	261	823	284	46	335	271	83	968	78	35	559	97
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	1	1	1	3	3	3	5	5	5
Cap, veh/h	358	1046	360	151	497	388	408	1477	119	196	1565	677
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2414	832	512	1791	1396	767	3275	264	527	3469	1501
Grp Volume(v), veh/h	261	596	511	46	335	271	83	521	525	35	559	97
Grp Sat Flow(s),veh/h/ln	1753	1749	1497	512	1791	1396	767	1763	1776	527	1735	1501
Q Serve(g_s), s	9.3	26.4	26.4	7.6	15.0	15.7	6.2	20.7	20.7	3.9	2.1	0.7
Cycle Q Clear(g_c), s	9.3	26.4	26.4	20.1	15.0	15.7	8.3	20.7	20.7	24.6	2.1	0.7
Prop In Lane	1.00		0.56	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	358	758	649	151	497	388	408	795	801	196	1565	677
V/C Ratio(X)	0.73	0.79	0.79	0.30	0.67	0.70	0.20	0.66	0.66	0.18	0.36	0.14
Avail Cap(c_a), veh/h	358	758	649	151	497	388	408	795	801	196	1565	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.56	0.56	0.56	1.00	1.00	1.00	1.00	1.00	1.00	0.80	0.80	0.80
Uniform Delay (d), s/veh	20.9	21.9	21.9	36.6	28.9	29.1	16.5	19.2	19.2	10.3	2.5	2.4
Incr Delay (d2), s/veh	4.2	4.7	5.5	5.1	7.1	10.0	1.1	4.2	4.2	1.6	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	10.8	9.4	1.1	7.0	6.0	1.2	8.8	8.8	0.4	0.7	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.1	26.6	27.4	41.7	36.0	39.2	17.6	23.4	23.4	11.9	3.0	2.8
LnGrp LOS	C	C	C	D	D	D	B	C	C	B	A	A
Approach Vol, veh/h		1368			652			1129			691	
Approach Delay, s/veh		26.6			37.7			23.0			3.4	
Approach LOS		C			D			C			A	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		26.6	11.3	22.1		22.7		28.4				
Green Ext Time (p_c), s		3.7	0.0	1.2		7.0		5.1				

Intersection Summary			
HCM 7th Control Delay, s/veh			23.3
HCM 7th LOS			C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	261	1156	46	662	83	1053	35	559	220
v/c Ratio	0.82	0.82	0.49	0.72	0.26	0.67	0.27	0.36	0.28
Control Delay (s/veh)	39.6	26.8	48.3	31.0	18.1	21.9	15.4	11.1	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	39.6	26.8	48.3	31.0	18.1	21.9	15.4	11.1	2.4
Queue Length 50th (ft)	93	276	22	158	28	237	6	50	8
Queue Length 95th (ft)	#194	367	#69	222	62	307	m15	77	16
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	318	1404	93	919	323	1563	128	1550	791
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.82	0.49	0.72	0.26	0.67	0.27	0.36	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	276	549	509	74	876	293
Future Volume (vph)	276	549	509	74	876	293
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1767	3362	3288		3257	
Flt Permitted	0.39	1.00	1.00		0.96	
Satd. Flow (perm)	723	3362	3288		3257	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	288	572	530	77	912	305
RTOR Reduction (vph)	0	0	21	0	53	0
Lane Group Flow (vph)	288	572	586	0	1165	0
Confl. Peds. (#/hr)	3			3		
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	5%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	26.6	26.6	26.6		22.9	
Effective Green, g (s)	26.6	26.6	26.6		22.9	
Actuated g/C Ratio	0.44	0.44	0.44		0.38	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	320	1490	1457		1243	
v/s Ratio Prot		0.17	0.18		c0.36	
v/s Ratio Perm	c0.40					
v/c Ratio	0.90	0.38	0.40		0.94	
Uniform Delay, d1	15.5	11.2	11.3		17.9	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	30.3	0.8	0.8		13.2	
Delay (s)	45.7	12.0	12.1		31.0	
Level of Service	D	B	B		C	
Approach Delay (s/veh)		23.3	12.1		31.0	
Approach LOS		C	B		C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	24.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	85.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	288	572	607	1218
v/c Ratio	0.90	0.38	0.41	0.94
Control Delay (s/veh)	47.9	11.5	10.9	35.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	47.9	11.5	10.9	35.8
Queue Length 50th (ft)	82	61	61	~248
Queue Length 95th (ft)	#215	92	93	#364
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			425
Base Capacity (vph)	355	1652	1635	1294
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.81	0.35	0.37	0.94

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	75	232	150	77	45	162	985	23	35	1225	16
Future Volume (veh/h)	50	75	232	150	77	45	162	985	23	35	1225	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	54	81	169	161	83	39	174	1059	12	38	1317	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	3	3	3	4	4	4
Cap, veh/h	103	138	243	210	96	39	223	1782	762	198	1286	491
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.03	0.17	0.17	0.37	0.37	0.37
Sat Flow, veh/h	194	479	843	509	333	135	1767	3526	1508	518	3497	1335
Grp Volume(v), veh/h	304	0	0	283	0	0	174	1059	12	38	1317	5
Grp Sat Flow(s),veh/h/ln	1516	0	0	977	0	0	1767	1763	1508	518	1749	1335
Q Serve(g_s), s	0.0	0.0	0.0	10.0	0.0	0.0	5.1	25.0	0.6	5.5	33.1	0.2
Cycle Q Clear(g_c), s	16.0	0.0	0.0	26.0	0.0	0.0	5.1	25.0	0.6	18.1	33.1	0.2
Prop In Lane	0.18		0.56	0.57		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	485	0	0	345	0	0	223	1782	762	198	1286	491
V/C Ratio(X)	0.63	0.00	0.00	0.82	0.00	0.00	0.78	0.59	0.02	0.19	1.02	0.01
Avail Cap(c_a), veh/h	485	0	0	345	0	0	375	1782	762	198	1286	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	0.0	32.8	0.0	0.0	22.0	29.0	18.8	29.0	28.5	18.1
Incr Delay (d2), s/veh	2.5	0.0	0.0	14.5	0.0	0.0	5.8	1.5	0.0	2.1	31.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0	7.4	0.0	0.0	2.4	12.0	0.2	0.8	18.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.0	0.0	0.0	47.4	0.0	0.0	27.8	30.4	18.8	31.1	59.8	18.1
LnGrp LOS	C			D			C	C	B	C	F	B
Approach Vol, veh/h		304			283			1245			1360	
Approach Delay, s/veh		31.0			47.4			29.9			58.8	
Approach LOS		C			D			C			E	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.4	41.8		35.8		54.2		35.8				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	7.1	35.1		28.0		27.0		18.0				
Green Ext Time (p_c), s	0.3	0.0		0.0		11.3		1.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			43.9									
HCM 7th LOS			D									

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	384	292	174	1059	25	38	1317	17
v/c Ratio	0.83	1.10	0.60	0.60	0.03	0.23	1.13	0.03
Control Delay (s/veh)	38.6	116.0	27.3	18.9	0.6	27.9	101.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.6	116.0	27.3	18.9	0.6	27.9	101.6	0.1
Queue Length 50th (ft)	152	~185	67	210	0	15	~459	0
Queue Length 95th (ft)	#310	#345	127	303	m0	46	#643	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	464	266	371	1771	754	162	1161	533
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	1.10	0.47	0.60	0.03	0.23	1.13	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	65	1066	7	19	1696
Future Vol, veh/h	21	65	1066	7	19	1696
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	22	68	1122	7	20	1785

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2063	570	0	0	1134	0
Stage 1	1131	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	48	470	-	-	606	-
Stage 1	274	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	47	468	-	-	603	-
Mov Cap-2 Maneuver	47	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	337	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s/v	63.51		0		0.12	
HCM LOS	F					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	146	603	-
HCM Lane V/C Ratio	-	-	0.621	0.033	-
HCM Control Delay (s/veh)	-	-	63.5	11.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	3.3	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	375	2	218	743	859	0	0	900	819
Future Volume (vph)	0	0	0	375	2	218	743	859	0	0	900	819
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.98
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1490		3367	3471			3505	1537
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1490		3367	3471			3505	1537
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	391	2	227	774	895	0	0	938	853
RTOR Reduction (vph)	0	0	0	0	99	0	0	0	0	0	0	349
Lane Group Flow (vph)	0	0	0	325	196	0	774	895	0	0	938	504
Confl. Peds. (#/hr)												3
Confl. Bikes (#/hr)												4
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	4%	4%	4%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				23.3	23.3		19.2	56.3			31.9	31.9
Effective Green, g (s)				23.3	23.3		19.2	56.3			31.9	31.9
Actuated g/C Ratio				0.26	0.26		0.21	0.63			0.35	0.35
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				418	385		718	2171			1242	544
v/s Ratio Prot				c0.20	0.13		c0.23	0.26			0.27	
v/s Ratio Perm												c0.33
v/c Ratio				0.78	0.51		1.08	0.41			0.76	0.93
Uniform Delay, d1				30.9	28.5		35.4	8.5			25.6	27.9
Progression Factor				1.00	1.00		1.15	0.65			0.48	0.85
Incremental Delay, d2				8.8	1.1		49.3	0.3			0.4	3.4
Delay (s)				39.8	29.5		90.0	5.8			12.8	27.1
Level of Service				D	C		F	A			B	C
Approach Delay (s/veh)		0.0			34.9			44.9			19.6	
Approach LOS		A			C			D			B	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	32.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	325	295	774	895	938	853
v/c Ratio	0.78	0.61	1.08	0.41	0.75	0.96
Control Delay (s/veh)	43.6	20.3	90.9	6.4	12.9	13.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	43.6	20.3	90.9	6.6	12.9	13.8
Queue Length 50th (ft)	177	81	~278	77	115	395
Queue Length 95th (ft)	260	156	m#419	m131	m72	m100
Internal Link Dist (ft)		849		394	176	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	570	716	2172	1261	898
Starvation Cap Reductn	0	0	0	435	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.52	1.08	0.52	0.74	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	737	437	71	353	273	70	1008	47	21	988	259
Future Volume (veh/h)	321	737	437	71	353	273	70	1008	47	21	988	259
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	341	784	437	76	376	251	74	1072	46	22	1051	127
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	6	6	6
Cap, veh/h	346	883	488	113	517	338	255	1530	66	176	1552	676
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2039	1127	442	1861	1218	468	3391	146	488	3441	1498
Grp Volume(v), veh/h	341	672	549	76	347	280	74	553	565	22	1051	127
Grp Sat Flow(s),veh/h/ln	1753	1749	1417	442	1721	1359	468	1749	1788	488	1721	1498
Q Serve(g_s), s	10.0	31.8	32.3	6.7	16.4	16.9	10.6	22.8	22.8	2.7	6.9	0.9
Cycle Q Clear(g_c), s	10.0	31.8	32.3	25.0	16.4	16.9	17.5	22.8	22.8	25.5	6.9	0.9
Prop In Lane	1.00		0.80	1.00		0.90	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	346	758	614	113	478	377	255	789	807	176	1552	676
V/C Ratio(X)	0.99	0.89	0.89	0.67	0.73	0.74	0.29	0.70	0.70	0.12	0.68	0.19
Avail Cap(c_a), veh/h	346	758	614	113	478	377	255	789	807	176	1552	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.42	0.42	0.42	1.00	1.00	1.00	1.00	1.00	1.00	0.56	0.56	0.56
Uniform Delay (d), s/veh	25.9	23.5	23.6	43.5	29.4	29.6	20.9	19.8	19.8	11.3	2.8	2.5
Incr Delay (d2), s/veh	28.0	6.9	8.8	27.6	9.3	12.4	2.9	5.1	5.0	0.8	1.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	13.2	11.2	2.5	7.6	6.5	1.3	9.7	9.9	0.3	1.3	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	53.9	30.3	32.4	71.2	38.7	41.9	23.8	25.0	24.9	12.1	4.1	2.8
LnGrp LOS	D	C	C	E	D	D	C	C	C	B	A	A
Approach Vol, veh/h		1562			703			1192			1200	
Approach Delay, s/veh		36.2			43.5			24.8			4.1	
Approach LOS		D			D			C			A	
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		27.5	12.0	27.0		24.8		34.3				
Green Ext Time (p_c), s		6.5	0.0	0.0		7.4		3.0				

Intersection Summary		
HCM 7th Control Delay, s/veh		26.1
HCM 7th LOS		C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	341	1249	76	666	74	1122	22	1051	276
v/c Ratio	1.08	0.92	0.96	0.77	0.57	0.72	0.20	0.68	0.34
Control Delay (s/veh)	94.6	35.7	129.6	34.2	39.3	23.3	16.7	15.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	94.6	35.7	129.6	34.2	39.3	23.3	16.7	15.4	3.2
Queue Length 50th (ft)	~140	332	42	168	30	262	5	124	11
Queue Length 95th (ft)	#311	#481	#132	235	#98	338	m9	179	m30
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	317	1356	79	870	130	1556	108	1536	813
Starvation Cap Reductn	0	0	0	0	0	0	0	64	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.92	0.96	0.77	0.57	0.72	0.20	0.71	0.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
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95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	220	482	644	54	983	365
Future Volume (vph)	220	482	644	54	983	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1734	3298	3223		3313	
Flt Permitted	0.31	1.00	1.00		0.96	
Satd. Flow (perm)	563	3298	3223		3313	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	507	678	57	1035	384
RTOR Reduction (vph)	0	0	12	0	60	0
Lane Group Flow (vph)	232	507	723	0	1359	0
Confl. Peds. (#/hr)	2			2		
Heavy Vehicles (%)	4%	4%	5%	5%	3%	3%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	25.4	25.4	25.4		24.1	
Effective Green, g (s)	25.4	25.4	25.4		24.1	
Actuated g/C Ratio	0.42	0.42	0.42		0.40	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	238	1396	1364		1330	
v/s Ratio Prot		0.15	0.22		c0.41	
v/s Ratio Perm	c0.41					
v/c Ratio	0.97	0.36	0.53		1.02	
Uniform Delay, d1	17.0	11.8	12.9		18.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	52.2	0.7	1.5		30.4	
Delay (s)	69.2	12.5	14.3		48.3	
Level of Service	E	B	B		D	
Approach Delay (s/veh)		30.3	14.3		48.3	
Approach LOS		C	B		D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	35.1	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	232	507	735	1419
v/c Ratio	0.92	0.35	0.52	1.06
Control Delay (s/veh)	59.5	11.3	12.7	64.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.5	11.3	12.7	64.3
Queue Length 50th (ft)	67	53	82	~323
Queue Length 95th (ft)	#189	82	121	#444
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			425
Base Capacity (vph)	281	1621	1593	1340
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.31	0.46	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	58	120	149	32	31	57	862	45	40	1138	31
Future Volume (veh/h)	27	58	120	149	32	31	57	862	45	40	1138	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1841	1841	1841	1856	1856	1856
Adj Flow Rate, veh/h	28	61	62	157	34	25	60	907	25	42	1198	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	3	3	3
Cap, veh/h	85	161	139	247	47	29	271	2028	874	289	1632	629
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.02	0.19	0.19	0.46	0.46	0.46
Sat Flow, veh/h	177	750	646	831	220	138	1753	3497	1507	596	3526	1359
Grp Volume(v), veh/h	151	0	0	216	0	0	60	907	25	42	1198	13
Grp Sat Flow(s),veh/h/ln	1574	0	0	1188	0	0	1753	1749	1507	596	1763	1359
Q Serve(g_s), s	0.0	0.0	0.0	8.4	0.0	0.0	1.5	20.6	1.2	4.4	24.9	0.5
Cycle Q Clear(g_c), s	7.5	0.0	0.0	15.9	0.0	0.0	1.5	20.6	1.2	14.5	24.9	0.5
Prop In Lane	0.19		0.41	0.73		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	0	0	324	0	0	271	2028	874	289	1632	629
V/C Ratio(X)	0.39	0.00	0.00	0.67	0.00	0.00	0.22	0.45	0.03	0.15	0.73	0.02
Avail Cap(c_a), veh/h	495	0	0	415	0	0	457	2028	874	289	1632	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	0.0	34.1	0.0	0.0	14.9	23.6	15.8	20.4	19.7	13.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.7	0.0	0.0	0.4	0.7	0.1	1.1	3.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	4.7	0.0	0.0	0.6	9.7	0.4	0.7	10.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.4	0.0	0.0	36.8	0.0	0.0	15.3	24.3	15.8	21.5	22.6	13.2
LnGrp LOS	C			D			B	C	B	C	C	B
Approach Vol, veh/h		151			216			992			1253	
Approach Delay, s/veh		31.4			36.8			23.6			22.5	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.5	50.4		29.1		60.9		29.1				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	3.5	26.9		17.9		22.6		9.5				
Green Ext Time (p_c), s	0.1	0.0		0.7		11.2		0.7				

Intersection Summary			
HCM 7th Control Delay, s/veh			24.6
HCM 7th LOS			C

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	215	224	60	907	47	42	1198	33
v/c Ratio	0.54	0.84	0.25	0.47	0.06	0.17	0.77	0.05
Control Delay (s/veh)	22.6	57.1	14.7	14.9	2.8	21.6	28.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.6	57.1	14.7	14.9	2.8	21.6	28.1	0.1
Queue Length 50th (ft)	64	114	17	164	0	15	314	0
Queue Length 95th (ft)	127	#212	51	249	13	43	#492	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	471	323	373	1934	833	253	1559	662
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.69	0.16	0.47	0.06	0.17	0.77	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	20	1020	25	17	1367
Future Vol, veh/h	13	20	1020	25	17	1367
Conflicting Peds, #/hr	0	0	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	14	21	1063	26	18	1424

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1831	552	0	0	1097	0
Stage 1	1084	-	-	-	-	-
Stage 2	747	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	69	482	-	-	626	-
Stage 1	290	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	67	479	-	-	622	-
Mov Cap-2 Maneuver	67	-	-	-	-	-
Stage 1	288	-	-	-	-	-
Stage 2	422	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	38.99	0	0.13
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	140	622	-
HCM Lane V/C Ratio	-	-	0.246	0.028	-
HCM Control Delay (s/veh)	-	-	39	11	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	216	0	166	721	888	0	0	624	763
Future Volume (vph)	0	0	0	216	0	166	721	888	0	0	624	763
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.87		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1469		3433	3539			3505	1516
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1469		3433	3539			3505	1516
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	225	0	173	751	925	0	0	650	795
RTOR Reduction (vph)	0	0	0	0	99	0	0	0	0	0	0	490
Lane Group Flow (vph)	0	0	0	202	97	0	751	925	0	0	650	305
Confl. Peds. (#/hr)									1			9
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	2%	2%	2%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				17.4	17.4		27.7	62.2			29.3	29.3
Effective Green, g (s)				17.4	17.4		27.7	62.2			29.3	29.3
Actuated g/C Ratio				0.19	0.19		0.31	0.69			0.33	0.33
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				312	284		1056	2445			1141	493
v/s Ratio Prot				c0.12	0.07		c0.22	0.26			0.19	
v/s Ratio Perm												c0.20
v/c Ratio				0.65	0.34		0.71	0.38			0.57	0.62
Uniform Delay, d1				33.5	31.3		27.6	5.8			25.1	25.6
Progression Factor				1.00	1.00		1.14	0.61			0.52	2.70
Incremental Delay, d2				4.6	0.7		1.5	0.3			1.4	3.9
Delay (s)				38.0	32.1		33.0	3.9			14.6	73.3
Level of Service				D	C		C	A			B	E
Approach Delay (s/veh)		0.0			35.1			16.9			46.9	
Approach LOS		A			D			B			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	31.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	202	196	751	925	650	795
v/c Ratio	0.65	0.51	0.71	0.38	0.57	0.81
Control Delay (s/veh)	42.1	16.7	37.7	4.4	14.4	14.3
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	42.1	16.7	37.7	4.6	14.4	14.3
Queue Length 50th (ft)	113	37	205	57	94	364
Queue Length 95th (ft)	163	90	m#392	m126	75	505
Internal Link Dist (ft)		849		394	176	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	556	1056	2445	1261	1010
Starvation Cap Reductn	0	0	0	617	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.35	0.71	0.51	0.52	0.79

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	851	352	50	345	337	85	998	87	36	581	227
Future Volume (veh/h)	274	851	352	50	345	337	85	998	87	36	581	227
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	280	868	308	51	352	297	87	1018	82	37	593	102
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	1	1	1	3	3	3	5	5	5
Cap, veh/h	338	1038	367	133	497	388	395	1477	119	182	1565	677
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2395	847	480	1791	1396	740	3275	264	500	3469	1501
Grp Volume(v), veh/h	280	633	543	51	352	297	87	548	552	37	593	102
Grp Sat Flow(s),veh/h/ln	1753	1749	1494	480	1791	1396	740	1763	1776	500	1735	1501
Q Serve(g_s), s	10.0	28.9	29.1	9.5	15.9	17.6	6.9	22.3	22.3	4.6	2.3	0.7
Cycle Q Clear(g_c), s	10.0	28.9	29.1	24.7	15.9	17.6	9.2	22.3	22.3	26.9	2.3	0.7
Prop In Lane	1.00		0.57	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	338	758	647	133	497	388	395	795	801	182	1565	677
V/C Ratio(X)	0.83	0.84	0.84	0.38	0.71	0.77	0.22	0.69	0.69	0.20	0.38	0.15
Avail Cap(c_a), veh/h	338	758	647	133	497	388	395	795	801	182	1565	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.46	0.46	0.46	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	21.9	22.6	22.7	39.9	29.2	29.8	16.8	19.7	19.7	11.5	2.5	2.4
Incr Delay (d2), s/veh	7.8	5.2	6.1	8.2	8.2	13.5	1.3	4.8	4.8	2.0	0.5	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	11.8	10.3	1.4	7.6	7.0	1.2	9.5	9.6	0.5	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	29.7	27.8	28.8	48.2	37.5	43.3	18.1	24.5	24.5	13.5	3.1	2.8
LnGrp LOS	C	C	C	D	D	D	B	C	C	B	A	A
Approach Vol, veh/h		1456			700			1187			732	
Approach Delay, s/veh		28.6			40.7			24.0			3.6	
Approach LOS		C			D			C			A	
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		28.9	12.0	26.7		24.3		31.1				
Green Ext Time (p_c), s		3.6	0.0	0.0		7.2		4.4				
Intersection Summary												
HCM 7th Control Delay, s/veh			24.8									
HCM 7th LOS			C									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	280	1227	51	696	87	1107	37	593	232
v/c Ratio	0.92	0.87	0.61	0.76	0.28	0.71	0.33	0.38	0.29
Control Delay (s/veh)	54.4	30.1	62.9	33.5	18.8	22.8	18.3	11.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.4	30.1	62.9	33.5	18.8	22.8	18.3	11.5	2.4
Queue Length 50th (ft)	101	305	25	174	30	255	7	54	9
Queue Length 95th (ft)	#238	#421	#85	240	66	330	m16	82	17
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	306	1404	83	910	307	1563	113	1550	798
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.87	0.61	0.76	0.28	0.71	0.33	0.38	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	290	580	538	80	923	308
Future Volume (vph)	290	580	538	80	923	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1767	3362	3286		3257	
Flt Permitted	0.37	1.00	1.00		0.96	
Satd. Flow (perm)	691	3362	3286		3257	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	302	604	560	83	961	321
RTOR Reduction (vph)	0	0	21	0	54	0
Lane Group Flow (vph)	302	604	622	0	1228	0
Confl. Peds. (#/hr)	3			3		
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	5%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	27.4	27.4	27.4		22.1	
Effective Green, g (s)	27.4	27.4	27.4		22.1	
Actuated g/C Ratio	0.46	0.46	0.46		0.37	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	315	1535	1500		1199	
v/s Ratio Prot		0.18	0.19		c0.38	
v/s Ratio Perm	c0.44					
v/c Ratio	0.96	0.39	0.41		1.02	
Uniform Delay, d1	15.8	10.8	10.9		19.0	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	41.2	0.8	0.8		32.4	
Delay (s)	57.0	11.6	11.8		51.3	
Level of Service	E	B	B		D	
Approach Delay (s/veh)		26.7	11.8		51.3	
Approach LOS		C	B		D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	34.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	302	604	643	1282
v/c Ratio	0.93	0.38	0.41	1.05
Control Delay (s/veh)	53.9	10.9	10.5	62.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	53.9	10.9	10.5	62.7
Queue Length 50th (ft)	91	65	66	~275
Queue Length 95th (ft)	#234	98	100	#392
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			425
Base Capacity (vph)	342	1652	1635	1219
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.88	0.37	0.39	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	75	232	150	77	45	162	987	23	35	1224	16
Future Volume (veh/h)	50	75	232	150	77	45	162	987	23	35	1224	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	0.99		0.96	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1856	1856	1856	1841	1841	1841
Adj Flow Rate, veh/h	54	81	169	161	83	39	174	1061	12	38	1316	5
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	1	1	1	3	3	3	4	4	4
Cap, veh/h	103	138	243	210	96	39	223	1782	762	198	1286	491
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.03	0.17	0.17	0.37	0.37	0.37
Sat Flow, veh/h	194	479	843	509	333	135	1767	3526	1508	517	3497	1335
Grp Volume(v), veh/h	304	0	0	283	0	0	174	1061	12	38	1316	5
Grp Sat Flow(s),veh/h/ln	1516	0	0	977	0	0	1767	1763	1508	517	1749	1335
Q Serve(g_s), s	0.0	0.0	0.0	10.0	0.0	0.0	5.1	25.1	0.6	5.5	33.1	0.2
Cycle Q Clear(g_c), s	16.0	0.0	0.0	26.0	0.0	0.0	5.1	25.1	0.6	18.2	33.1	0.2
Prop In Lane	0.18		0.56	0.57		0.14	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	485	0	0	345	0	0	223	1782	762	198	1286	491
V/C Ratio(X)	0.63	0.00	0.00	0.82	0.00	0.00	0.78	0.60	0.02	0.19	1.02	0.01
Avail Cap(c_a), veh/h	485	0	0	345	0	0	375	1782	762	198	1286	491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.4	0.0	0.0	32.8	0.0	0.0	22.0	29.0	18.8	29.0	28.5	18.1
Incr Delay (d2), s/veh	2.5	0.0	0.0	14.5	0.0	0.0	5.8	1.5	0.0	2.2	31.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0	7.4	0.0	0.0	2.4	12.0	0.2	0.8	18.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.0	0.0	0.0	47.4	0.0	0.0	27.8	30.4	18.8	31.2	59.6	18.1
LnGrp LOS	C			D			C	C	B	C	F	B
Approach Vol, veh/h		304			283			1247			1359	
Approach Delay, s/veh		31.0			47.4			30.0			58.6	
Approach LOS		C			D			C			E	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.4	41.8		35.8		54.2		35.8				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	7.1	35.1		28.0		27.1		18.0				
Green Ext Time (p_c), s	0.3	0.0		0.0		11.3		1.2				

Intersection Summary			
HCM 7th Control Delay, s/veh			43.8
HCM 7th LOS			D

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	384	292	174	1061	25	38	1316	17
v/c Ratio	0.83	1.10	0.60	0.60	0.03	0.23	1.13	0.03
Control Delay (s/veh)	38.6	116.0	27.1	18.9	0.5	27.9	101.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	38.6	116.0	27.1	18.9	0.5	27.9	101.3	0.1
Queue Length 50th (ft)	152	~185	66	213	0	15	~458	0
Queue Length 95th (ft)	#310	#345	127	302	m0	46	#642	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	464	266	371	1771	754	162	1161	533
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.83	1.10	0.47	0.60	0.03	0.23	1.13	0.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	21	65	1068	7	19	1695
Future Vol, veh/h	21	65	1068	7	19	1695
Conflicting Peds, #/hr	0	0	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	22	68	1124	7	20	1784

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2065	571	0	0	1137	0
Stage 1	1133	-	-	-	-	-
Stage 2	932	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	48	469	-	-	605	-
Stage 1	274	-	-	-	-	-
Stage 2	348	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	46	467	-	-	602	-
Mov Cap-2 Maneuver	46	-	-	-	-	-
Stage 1	272	-	-	-	-	-
Stage 2	337	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	63.79	0	0.12
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	145	602	-
HCM Lane V/C Ratio	-	-	0.623	0.033	-
HCM Control Delay (s/veh)	-	-	63.8	11.2	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	3.3	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	375	2	217	743	848	0	0	907	844
Future Volume (vph)	0	0	0	375	2	217	743	848	0	0	907	844
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.98
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1490		3367	3471			3505	1537
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1490		3367	3471			3505	1537
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	391	2	226	774	883	0	0	945	879
RTOR Reduction (vph)	0	0	0	0	102	0	0	0	0	0	0	354
Lane Group Flow (vph)	0	0	0	325	192	0	774	883	0	0	945	525
Confl. Peds. (#/hr)												3
Confl. Bikes (#/hr)												4
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	4%	4%	4%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				23.3	23.3		18.7	56.3			32.4	32.4
Effective Green, g (s)				23.3	23.3		18.7	56.3			32.4	32.4
Actuated g/C Ratio				0.26	0.26		0.21	0.63			0.36	0.36
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				418	385		699	2171			1261	553
v/s Ratio Prot				c0.20	0.13		c0.23	0.25			0.27	
v/s Ratio Perm												c0.34
v/c Ratio				0.78	0.50		1.11	0.41			0.75	0.95
Uniform Delay, d1				30.9	28.4		35.7	8.5			25.2	28.0
Progression Factor				1.00	1.00		1.15	0.64			0.51	0.79
Incremental Delay, d2				8.8	1.0		60.7	0.3			1.2	11.7
Delay (s)				39.8	29.4		101.7	5.8			14.2	34.0
Level of Service				D	C		F	A			B	C
Approach Delay (s/veh)		0.0			34.8			50.6			23.7	
Approach LOS		A			C			D			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	36.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	103.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	325	294	774	883	945	879
v/c Ratio	0.78	0.60	1.10	0.41	0.75	0.97
Control Delay (s/veh)	43.6	19.7	99.9	6.4	14.4	20.8
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	43.6	19.7	99.9	6.5	14.4	20.8
Queue Length 50th (ft)	177	77	~278	75	128	396
Queue Length 95th (ft)	260	152	m#422	m128	m81	m106
Internal Link Dist (ft)		849		394	94	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	573	701	2172	1261	907
Starvation Cap Reductn	0	0	0	438	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.51	1.10	0.51	0.75	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	312	737	437	71	353	273	70	1006	47	23	994	261
Future Volume (veh/h)	312	737	437	71	353	273	70	1006	47	23	994	261
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1811	1811	1811	1841	1841	1841	1811	1811	1811
Adj Flow Rate, veh/h	332	784	437	76	376	251	74	1070	46	24	1057	129
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	4	4	4	6	6	6	4	4	4	6	6	6
Cap, veh/h	346	883	488	113	517	338	253	1530	66	177	1552	676
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2039	1127	442	1861	1218	464	3391	146	489	3441	1498
Grp Volume(v), veh/h	332	672	549	76	347	280	74	552	564	24	1057	129
Grp Sat Flow(s),veh/h/ln	1753	1749	1417	442	1721	1359	464	1749	1788	489	1721	1498
Q Serve(g_s), s	10.0	31.8	32.3	6.7	16.4	16.9	10.7	22.8	22.8	3.0	7.0	0.9
Cycle Q Clear(g_c), s	10.0	31.8	32.3	25.0	16.4	16.9	17.7	22.8	22.8	25.7	7.0	0.9
Prop In Lane	1.00		0.80	1.00		0.90	1.00		0.08	1.00		1.00
Lane Grp Cap(c), veh/h	346	758	614	113	478	377	253	789	807	177	1552	676
V/C Ratio(X)	0.96	0.89	0.89	0.67	0.73	0.74	0.29	0.70	0.70	0.14	0.68	0.19
Avail Cap(c_a), veh/h	346	758	614	113	478	377	253	789	807	177	1552	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.38	0.38	0.38	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57
Uniform Delay (d), s/veh	25.4	23.5	23.6	43.5	29.4	29.6	21.0	19.8	19.8	11.3	2.8	2.5
Incr Delay (d2), s/veh	20.9	6.3	8.1	27.6	9.3	12.4	2.9	5.1	5.0	0.9	1.4	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	13.1	11.1	2.5	7.6	6.5	1.3	9.7	9.9	0.3	1.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	46.2	29.7	31.7	71.2	38.7	41.9	23.9	24.9	24.8	12.2	4.2	2.8
LnGrp LOS	D	C	C	E	D	D	C	C	C	B	A	A
Approach Vol, veh/h		1553			703			1190			1210	
Approach Delay, s/veh		33.9			43.5			24.8			4.2	
Approach LOS		C			D			C			A	
Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		27.7	12.0	27.0		24.8		34.3				
Green Ext Time (p_c), s		6.5	0.0	0.0		7.4		3.0				

Intersection Summary			
HCM 7th Control Delay, s/veh			25.3
HCM 7th LOS			C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	332	1249	76	666	74	1120	24	1057	278
v/c Ratio	1.05	0.92	0.96	0.76	0.57	0.72	0.22	0.69	0.34
Control Delay (s/veh)	85.9	35.9	129.6	34.2	39.9	23.2	17.1	15.3	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Delay (s/veh)	85.9	35.9	129.6	34.2	39.9	23.2	17.1	15.5	3.2
Queue Length 50th (ft)	~129	332	42	168	30	261	5	125	11
Queue Length 95th (ft)	#298	#482	#132	234	#98	338	m10	181	m30
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	317	1355	79	871	129	1556	109	1536	813
Starvation Cap Reductn	0	0	0	0	0	0	0	64	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.92	0.96	0.76	0.57	0.72	0.22	0.72	0.34

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	220	482	645	55	974	365
Future Volume (vph)	220	482	645	55	974	365
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1734	3298	3222		3312	
Flt Permitted	0.31	1.00	1.00		0.96	
Satd. Flow (perm)	572	3298	3222		3312	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	232	507	679	58	1025	384
RTOR Reduction (vph)	0	0	12	0	62	0
Lane Group Flow (vph)	232	507	725	0	1347	0
Confl. Peds. (#/hr)	2			2		
Heavy Vehicles (%)	4%	4%	5%	5%	3%	3%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	26.4	26.4	26.4		23.1	
Effective Green, g (s)	26.4	26.4	26.4		23.1	
Actuated g/C Ratio	0.44	0.44	0.44		0.39	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	251	1451	1417		1275	
v/s Ratio Prot		0.15	0.23		c0.41	
v/s Ratio Perm	c0.41					
v/c Ratio	0.92	0.35	0.51		1.06	
Uniform Delay, d1	15.9	11.1	12.1		18.5	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	40.2	0.7	1.3		41.5	
Delay (s)	56.0	11.8	13.5		60.0	
Level of Service	E	B	B		E	
Approach Delay (s/veh)		25.7	13.5		60.0	
Approach LOS		C	B		E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	39.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	232	507	737	1409
v/c Ratio	0.92	0.35	0.52	1.05
Control Delay (s/veh)	59.2	11.2	12.7	62.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.2	11.2	12.7	62.1
Queue Length 50th (ft)	67	53	82	~319
Queue Length 95th (ft)	#189	82	122	#439
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			450
Base Capacity (vph)	281	1621	1594	1339
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.83	0.31	0.46	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	46	5	1060	1716	0
Future Vol, veh/h	0	46	5	1060	1716	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	50	5	1152	1865	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	933	1865	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	268	320	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	268	320	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	21.5	0.08	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	320	-	268	-	-
HCM Lane V/C Ratio	0.017	-	0.187	-	-
HCM Control Delay (s/veh)	16.5	-	21.5	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	58	120	149	32	31	57	865	45	40	1146	31
Future Volume (veh/h)	27	58	120	149	32	31	57	865	45	40	1146	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.97	0.99		0.97	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	1.00	1.00	1.00	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1885	1885	1841	1841	1841	1856	1856	1856
Adj Flow Rate, veh/h	28	61	62	157	34	25	60	911	25	42	1206	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	1	1	1	4	4	4	3	3	3
Cap, veh/h	85	161	139	247	47	29	269	2028	874	287	1632	629
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.02	0.19	0.19	0.46	0.46	0.46
Sat Flow, veh/h	177	750	646	831	220	138	1753	3497	1507	593	3526	1359
Grp Volume(v), veh/h	151	0	0	216	0	0	60	911	25	42	1206	13
Grp Sat Flow(s),veh/h/ln	1574	0	0	1188	0	0	1753	1749	1507	593	1763	1359
Q Serve(g_s), s	0.0	0.0	0.0	8.4	0.0	0.0	1.5	20.7	1.2	4.5	25.1	0.5
Cycle Q Clear(g_c), s	7.5	0.0	0.0	15.9	0.0	0.0	1.5	20.7	1.2	14.7	25.1	0.5
Prop In Lane	0.19		0.41	0.73		0.12	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	385	0	0	324	0	0	269	2028	874	287	1632	629
V/C Ratio(X)	0.39	0.00	0.00	0.67	0.00	0.00	0.22	0.45	0.03	0.15	0.74	0.02
Avail Cap(c_a), veh/h	495	0	0	415	0	0	455	2028	874	287	1632	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.7	0.0	0.0	34.1	0.0	0.0	15.0	23.7	15.8	20.5	19.7	13.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.7	0.0	0.0	0.4	0.7	0.1	1.1	3.0	0.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.0	4.7	0.0	0.0	0.6	9.8	0.4	0.7	10.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.4	0.0	0.0	36.8	0.0	0.0	15.4	24.4	15.8	21.6	22.8	13.2
LnGrp LOS	C			D			B	C	B	C	C	B
Approach Vol, veh/h		151			216			996			1261	
Approach Delay, s/veh		31.4			36.8			23.6			22.6	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.5	50.4		29.1		60.9		29.1				
Change Period (Y+Rc), s	5.1	8.7		9.8		8.7		9.8				
Max Green Setting (Gmax), s	15.0	24.5		26.0		45.5		26.0				
Max Q Clear Time (g_c+I1), s	3.5	27.1		17.9		22.7		9.5				
Green Ext Time (p_c), s	0.1	0.0		0.7		11.3		0.7				

Intersection Summary			
HCM 7th Control Delay, s/veh			24.7
HCM 7th LOS			C

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	215	224	60	911	47	42	1206	33
v/c Ratio	0.54	0.84	0.25	0.47	0.06	0.17	0.77	0.05
Control Delay (s/veh)	22.6	57.1	14.5	14.8	3.0	21.6	28.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	22.6	57.1	14.5	14.8	3.0	21.6	28.3	0.1
Queue Length 50th (ft)	64	114	17	160	0	15	317	0
Queue Length 95th (ft)	127	#212	50	254	13	43	#497	0
Internal Link Dist (ft)	599	604		642			1393	
Turn Bay Length (ft)			110		110	120		50
Base Capacity (vph)	471	323	372	1934	833	252	1559	662
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.69	0.16	0.47	0.06	0.17	0.77	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	20	1023	25	17	1375
Future Vol, veh/h	13	20	1023	25	17	1375
Conflicting Peds, #/hr	0	0	0	8	8	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	300	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	3	3	3	3
Mvmt Flow	14	21	1066	26	18	1432

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1838	554	0	0	1100	0
Stage 1	1087	-	-	-	-	-
Stage 2	752	-	-	-	-	-
Critical Hdwy	6.8	6.9	-	-	4.16	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.23	-
Pot Cap-1 Maneuver	69	481	-	-	625	-
Stage 1	289	-	-	-	-	-
Stage 2	432	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	66	478	-	-	620	-
Mov Cap-2 Maneuver	66	-	-	-	-	-
Stage 1	287	-	-	-	-	-
Stage 2	420	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v	39.43	0	0.13
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	138	620	-
HCM Lane V/C Ratio	-	-	0.249	0.029	-
HCM Control Delay (s/veh)	-	-	39.4	11	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	0.9	0.1	-

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	216	0	169	721	947	0	0	630	784
Future Volume (vph)	0	0	0	216	0	169	721	947	0	0	630	784
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Lane Util. Factor				0.95	0.95		0.97	0.95			0.95	1.00
Frpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	0.97
Flpb, ped/bikes				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.87		1.00	1.00			1.00	0.85
Flt Protected				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1618	1468		3433	3539			3505	1516
Flt Permitted				0.95	0.99		0.95	1.00			1.00	1.00
Satd. Flow (perm)				1618	1468		3433	3539			3505	1516
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	0	0	0	225	0	176	751	986	0	0	656	817
RTOR Reduction (vph)	0	0	0	0	86	0	0	0	0	0	0	498
Lane Group Flow (vph)	0	0	0	202	113	0	751	986	0	0	656	319
Confl. Peds. (#/hr)									1			9
Confl. Bikes (#/hr)												8
Heavy Vehicles (%)	0%	0%	0%	6%	6%	6%	2%	2%	2%	3%	3%	3%
Turn Type				Split	NA		Prot	NA			NA	Perm
Protected Phases				4	4		1	6			2	
Permitted Phases												2
Actuated Green, G (s)				17.4	17.4		27.6	62.2			29.4	29.4
Effective Green, g (s)				17.4	17.4		27.6	62.2			29.4	29.4
Actuated g/C Ratio				0.19	0.19		0.31	0.69			0.33	0.33
Clearance Time (s)				5.2	5.2		5.2	5.2			5.2	5.2
Vehicle Extension (s)				3.0	3.0		3.0	4.7			4.5	4.5
Lane Grp Cap (vph)				312	283		1052	2445			1144	495
v/s Ratio Prot				c0.12	0.08		c0.22	0.28			0.19	
v/s Ratio Perm												c0.21
v/c Ratio				0.65	0.40		0.71	0.40			0.57	0.64
Uniform Delay, d1				33.5	31.7		27.7	6.0			25.1	25.8
Progression Factor				1.00	1.00		1.12	0.63			0.56	2.40
Incremental Delay, d2				4.6	0.9		1.4	0.3			1.6	4.7
Delay (s)				38.0	32.7		32.4	4.0			15.7	66.7
Level of Service				D	C		C	A			B	E
Approach Delay (s/veh)		0.0			35.4			16.3			44.0	
Approach LOS		A			D			B			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	29.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	15.6
Intersection Capacity Utilization	94.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	202	199	751	986	656	817
v/c Ratio	0.65	0.54	0.71	0.40	0.57	0.82
Control Delay (s/veh)	42.1	19.9	37.0	4.6	15.5	14.3
Queue Delay	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (s/veh)	42.1	19.9	37.0	4.8	15.5	14.3
Queue Length 50th (ft)	113	49	204	63	102	353
Queue Length 95th (ft)	163	102	m#376	m140	93	493
Internal Link Dist (ft)		849		394	98	
Turn Bay Length (ft)	500		200			100
Base Capacity (vph)	521	544	1054	2445	1261	1019
Starvation Cap Reductn	0	0	0	602	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.37	0.71	0.53	0.52	0.80

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	851	352	50	345	337	85	1010	87	42	586	230
Future Volume (veh/h)	321	851	352	50	345	337	85	1010	87	42	586	230
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	0.99		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	0.90	1.00	1.00	0.90	1.00	1.00	0.99	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1885	1885	1885	1856	1856	1856	1826	1826	1826
Adj Flow Rate, veh/h	328	868	308	51	352	297	87	1031	82	43	598	105
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	4	4	4	1	1	1	3	3	3	5	5	5
Cap, veh/h	338	1038	367	133	497	388	392	1479	118	178	1565	677
Arrive On Green	0.11	0.43	0.43	0.28	0.28	0.28	0.45	0.45	0.45	0.90	0.90	0.90
Sat Flow, veh/h	1753	2395	847	480	1791	1396	734	3279	261	494	3469	1501
Grp Volume(v), veh/h	328	633	543	51	352	297	87	554	559	43	598	105
Grp Sat Flow(s),veh/h/ln	1753	1749	1494	480	1791	1396	734	1763	1777	494	1735	1501
Q Serve(g_s), s	10.0	28.9	29.1	9.5	15.9	17.6	6.9	22.6	22.7	5.7	2.3	0.7
Cycle Q Clear(g_c), s	10.0	28.9	29.1	24.7	15.9	17.6	9.3	22.6	22.7	28.4	2.3	0.7
Prop In Lane	1.00		0.57	1.00		1.00	1.00		0.15	1.00		1.00
Lane Grp Cap(c), veh/h	338	758	647	133	497	388	392	795	801	178	1565	677
V/C Ratio(X)	0.97	0.84	0.84	0.38	0.71	0.77	0.22	0.70	0.70	0.24	0.38	0.16
Avail Cap(c_a), veh/h	338	758	647	133	497	388	392	795	801	178	1565	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.36	0.36	0.36	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	25.3	22.6	22.7	39.9	29.2	29.8	16.9	19.8	19.8	12.1	2.5	2.5
Incr Delay (d2), s/veh	22.2	4.1	4.9	8.2	8.2	13.5	1.3	5.0	5.0	2.5	0.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	11.6	10.1	1.4	7.6	7.0	1.3	9.7	9.8	0.6	0.7	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.5	26.8	27.6	48.2	37.5	43.3	18.2	24.8	24.8	14.5	3.1	2.8
LnGrp LOS	D	C	C	D	D	D	B	C	C	B	A	A
Approach Vol, veh/h		1504			700			1200			746	
Approach Delay, s/veh		31.6			40.7			24.3			3.7	
Approach LOS		C			D			C			A	

Timer - Assigned Phs		2	3	4		6		8				
Phs Duration (G+Y+Rc), s		45.6	14.0	30.4		45.6		44.4				
Change Period (Y+Rc), s		5.0	4.0	5.4		5.0		5.4				
Max Green Setting (Gmax), s		40.6	10.0	25.0		40.6		39.0				
Max Q Clear Time (g_c+I1), s		30.4	12.0	26.7		24.7		31.1				
Green Ext Time (p_c), s		3.5	0.0	0.0		7.2		4.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		26.0
HCM 7th LOS		C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	328	1227	51	696	87	1120	43	598	235
v/c Ratio	1.07	0.87	0.61	0.77	0.29	0.72	0.39	0.39	0.29
Control Delay (s/veh)	94.1	30.1	62.9	34.2	18.8	23.0	21.1	11.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	94.1	30.1	62.9	34.2	18.8	23.0	21.1	11.5	2.4
Queue Length 50th (ft)	~138	305	25	176	30	260	8	55	9
Queue Length 95th (ft)	#305	#421	#85	243	66	335	m18	82	17
Internal Link Dist (ft)		705		1255		1399		394	
Turn Bay Length (ft)	150		80		120		130		150
Base Capacity (vph)	306	1404	83	904	304	1563	110	1550	799
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	0.87	0.61	0.77	0.29	0.72	0.39	0.39	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	290	580	540	81	970	308
Future Volume (vph)	290	580	540	81	970	308
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.1	5.1	5.1		5.4	
Lane Util. Factor	1.00	0.95	0.95		0.97	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.98		0.96	
Flt Protected	0.95	1.00	1.00		0.96	
Satd. Flow (prot)	1767	3362	3286		3260	
Flt Permitted	0.37	1.00	1.00		0.96	
Satd. Flow (perm)	692	3362	3286		3260	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	302	604	562	84	1010	321
RTOR Reduction (vph)	0	0	21	0	51	0
Lane Group Flow (vph)	302	604	626	0	1280	0
Confl. Peds. (#/hr)	3			3		
Confl. Bikes (#/hr)				3		
Heavy Vehicles (%)	2%	2%	2%	2%	5%	5%
Parking (#/hr)		0	0	0		
Turn Type	Perm	NA	NA		Prot	
Protected Phases		2	6		4	
Permitted Phases	2					
Actuated Green, G (s)	28.1	28.1	28.1		21.4	
Effective Green, g (s)	28.1	28.1	28.1		21.4	
Actuated g/C Ratio	0.47	0.47	0.47		0.36	
Clearance Time (s)	5.1	5.1	5.1		5.4	
Vehicle Extension (s)	3.8	3.8	3.7		3.0	
Lane Grp Cap (vph)	324	1574	1538		1162	
v/s Ratio Prot		0.18	0.19		c0.39	
v/s Ratio Perm	c0.44					
v/c Ratio	0.93	0.38	0.41		1.10	
Uniform Delay, d1	15.0	10.3	10.5		19.3	
Progression Factor	1.00	1.00	1.00		1.00	
Incremental Delay, d2	35.4	0.7	0.8		58.8	
Delay (s)	50.4	11.0	11.3		78.1	
Level of Service	D	B	B		E	
Approach Delay (s/veh)		24.2	11.3		78.1	
Approach LOS		C	B		E	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	46.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	SBL
Lane Group Flow (vph)	302	604	647	1331
v/c Ratio	0.93	0.38	0.41	1.10
Control Delay (s/veh)	54.5	10.8	10.4	79.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay (s/veh)	54.5	10.8	10.4	79.8
Queue Length 50th (ft)	91	65	66	~296
Queue Length 95th (ft)	#234	98	101	#415
Internal Link Dist (ft)		471	705	993
Turn Bay Length (ft)	125			450
Base Capacity (vph)	340	1652	1635	1211
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.89	0.37	0.40	1.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	74	101	1015	1375	13
Future Vol, veh/h	0	74	101	1015	1375	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	70	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	80	110	1103	1495	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	754	1509	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	0	352	439	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	352	439	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s/v	18.25	1.44	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	439	-	352	-	-
HCM Lane V/C Ratio	0.25	-	0.229	-	-
HCM Control Delay (s/veh)	15.9	-	18.3	-	-
HCM Lane LOS	C	-	C	-	-
HCM 95th %tile Q(veh)	1	-	0.9	-	-

Appendix G: Intersection Counts

Prepared by National Data & Surveying Services

Glenoaks Blvd & Vaughn St

Peak Hour Turning Movement Count

ID: 24-020113-001
City: San Fernando

Day: Tuesday
Date: 4/16/2024

PEAK HOURS		COUNT PERIODS
AM	07:30 AM - 08:30 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	03:45 PM - 04:45 PM	3:00 PM - 06:00 PM

Glenoaks Blvd — SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit
AM	15	1152	33	0	1014
NOON	0	0	0	0	0
PM	29	1079	38	0	872
	0	3	1	0	

Vaughn St — EASTBOUND

	AM	NOON	PM	
Exit	241	0	112	
U-Turn	0	0	0	0
Left	48	0	26	0
Thru	71	0	55	1
Right	221	0	114	0

Vaughn St — WESTBOUND

		PM	NOON	AM
Right	0	29	0	43
Thru	1	30	0	73
Left	0	142	0	143
U-Turn	0	0	0	0
Exit		136	0	126

Glenoaks Blvd — NORTHBOUND

		0	1	3	0
	Exit	U-Turn	Left	Thru	Right
PM	1336	1	53	817	43
NOON	0	0	0	0	0
AM	1517	1	153	923	22

CONTROL

Signalized

	AM	NOON	PM
TEV	2898	0	2456
PHF	0.93		0.95

Cars (AM)

Approach	Right	Thru	Left
Southbound	15	1097	33
Eastbound	219	69	48
Westbound	43	72	138
Northbound	20	883	152

Duals (AM)

Approach	Right	Thru	Left
Southbound	0	34	0
Eastbound	1	0	0
Westbound	0	1	1
Northbound	1	24	1

Cars (NOON)

Approach	Right	Thru	Left
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Duals (NOON)

Approach	Right	Thru	Left
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Cars (PM)

Approach	Right	Thru	Left
Southbound	29	1039	38
Eastbound	114	55	26
Westbound	29	30	140
Northbound	43	782	52

Duals (PM)

Approach	Right	Thru	Left
Southbound	0	24	0
Eastbound	0	0	0
Westbound	0	0	2
Northbound	0	19	1

Pedestrians (Crosswalks)

		AM	NOON	PM
North	West half	10	0	2
North	East half	19	0	7
West	North half	7	0	7
West	South half	3	0	4
East	North half	9	0	9
East	South half	10	0	5
South	West half	6	0	3
South	East half	24	0	3
Diagonal NW		0	0	0
Diagonal NE		0	0	0
Diagonal SW		0	0	0
Diagonal SE		0	0	0

Prepared by National Data & Surveying Services

Glenoaks Blvd & Eustace St

Peak Hour Turning Movement Count

ID: 24-020113-002
City: Pacoima

Day: Tuesday
Date: 4/9/2024

PEAK HOURS	
AM	07:30 AM - 08:30 AM
NOON	NONE
PM	03:30 PM - 04:30 PM

COUNT PERIODS	
AM	7:00 AM - 10:00 AM
NOON	NONE
PM	3:00 PM - 06:00 PM

Glenoaks Blvd – SOUTHBOUND

	Right	Thru	Left	U-Turn	Exit
AM	0	1600	17	1	1063
NOON	0	0	0	0	0
PM	0	1297	14	2	988
	0	2	0	0	

Eustace St – EASTBOUND

	AM	NOON	PM	
Exit	0	0	0	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

Eustace St – WESTBOUND

		PM	NOON	AM
Right	0	19	0	62
Thru	1	0	0	0
Left	0	12	0	20
U-Turn	0	0	0	0
Exit		38	0	24

Glenoaks Blvd – NORTHBOUND

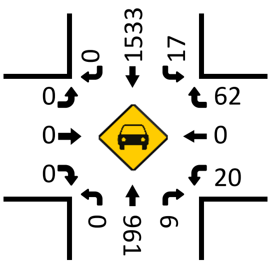
	Exit	U-Turn	Left	Thru	Right
		0	0	2	0
PM	1316	7	0	967	24
NOON	0	0	0	0	0
AM	1623	3	0	1000	7

CONTROL

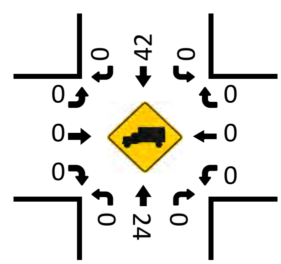
1-Way Stop(WB)

	AM	NOON	PM
TEV	2710	0	2342
PHF	0.95		0.96

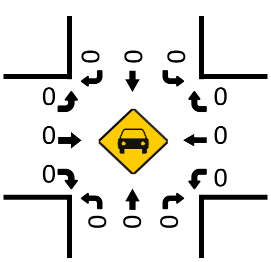
Cars (AM)



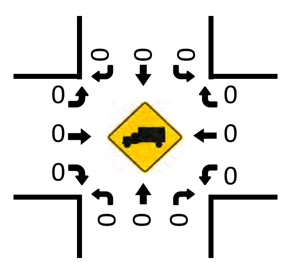
Duals (AM)



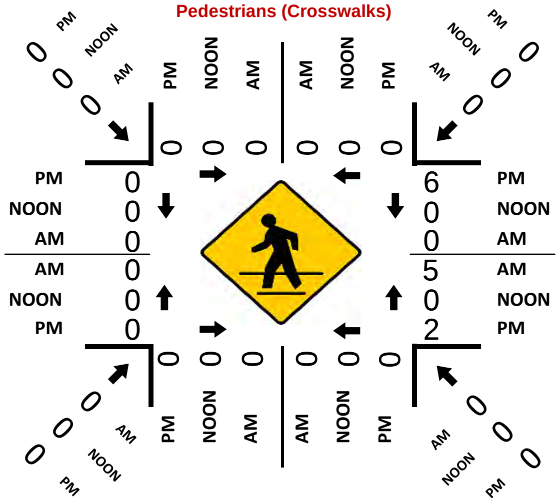
Cars (NOON)



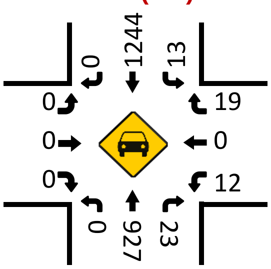
Duals (NOON)



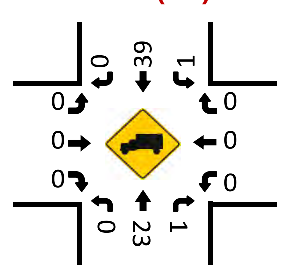
Pedestrians (Crosswalks)



Cars (PM)



Duals (PM)



Prepared by National Data & Surveying Services

Glenoaks Blvd & SR-118 WB Ramps

Peak Hour Turning Movement Count

ID: 24-020113-003
City: Pacoima

Day: Tuesday
Date: 4/9/2024

PEAK HOURS		COUNT PERIODS
07:30 AM - 08:30 AM	AM	7:00 AM - 10:00 AM
NONE	NOON	NONE
03:30 PM - 04:30 PM	PM	3:00 PM - 06:00 PM

SOUTHBOUND – Glenoaks Blvd

	Right	Thru	Left	U-Turn	Departing
AM	779	843	0	0	1010
NOON	0	0	0	0	0
PM	725	590	0	0	999
	1	2	0	0	

EASTBOUND – SR-118 WB Ramps

	AM	NOON	PM	
Departing	1481	0	1409	
U-Turn	0	0	0	0
Left	0	0	0	0
Thru	0	0	0	0
Right	0	0	0	0

WESTBOUND – SR-118 WB Ramps

		PM	NOON	AM
Right	0.3	158	0	207
Thru	0.3	0	0	2
Left	1.3	203	0	350
U-Turn	0	0	0	0
Departing		0	0	0

NORTHBOUND – Glenoaks Blvd

	Departing	U-Turn	Left	Thru	Right
		0	2	2	0
PM	793	0	684	841	0
NOON	0	0	0	0	0
AM	1193	0	700	803	0

CONTROL

Signalized

	AM	NOON	PM
TEV	3684	0	3201
PHF	0.96		0.96

Cars (AM)

	Right	Thru	Left
Southbound	743	812	0
Westbound	198	2	325
Northbound	0	772	660
Eastbound	0	0	0

Duals (AM)

	Right	Thru	Left
Southbound	22	20	0
Westbound	5	0	4
Northbound	0	19	29
Eastbound	0	0	0

Cars (NOON)

	Right	Thru	Left
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Duals (NOON)

	Right	Thru	Left
Southbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0
Eastbound	0	0	0

Cars (PM)

	Right	Thru	Left
Southbound	706	556	0
Westbound	148	0	190
Northbound	0	811	664
Eastbound	0	0	0

Duals (PM)

	Right	Thru	Left
Southbound	14	25	0
Westbound	7	0	7
Northbound	0	16	12
Eastbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	0	0	0
North	Westbound	0	0	1
West	Southbound	1	0	5
West	Northbound	2	0	4
East	Southbound	0	0	13
East	Northbound	10	0	7
South	Eastbound	0	0	0
South	Westbound	0	0	0
NW diagonal		0	0	0
NE diagonal		0	0	0
SW diagonal		0	0	0
SE diagonal		0	0	0

Prepared by National Data & Surveying Services

Glenoaks Blvd & Paxton St

Peak Hour Turning Movement Count

ID: 24-020113-004
City: Pacoima

Day: Tuesday
Date: 4/9/2024

	PEAK HOURS	COUNT PERIODS
AM	07:30 AM - 08:30 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	03:30 PM - 04:30 PM	3:00 PM - 06:00 PM

Glenoaks Blvd — SOUTHBOUND

	Right	Thru	Left	U-Turn	Approach
AM	246	920	20	0	1503
NOON	0	0	0	0	0
PM	216	548	34	0	1525
	0	3	1	0	

Paxton St — EASTBOUND

	AM	NOON	PM	
Departure	649	0	625	
U-Turn	0	0	0	0
Left	285	0	256	1
Thru	691	0	807	2
Right	381	0	326	0

Paxton St — WESTBOUND

		PM	NOON	AM
Right	0	320	0	260
Thru	2	328	0	336
Left	1	45	0	58
U-Turn	0	0	0	0
Approach		924	0	756

CONTROL

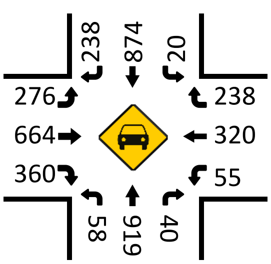
Signalized

	AM	NOON	PM
TEV	4267	0	3993
PHF	0.94		0.98

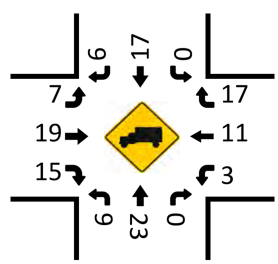
Glenoaks Blvd — NORTHBOUND

	Departure	U-Turn	Left	Thru	Right
		0	1	3	0
PM	919	0	81	949	83
NOON	0	0	0	0	0
AM	1359	0	67	958	45

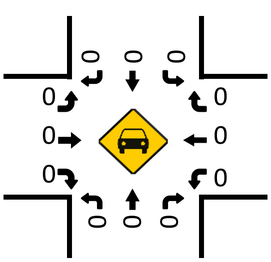
Cars (AM)



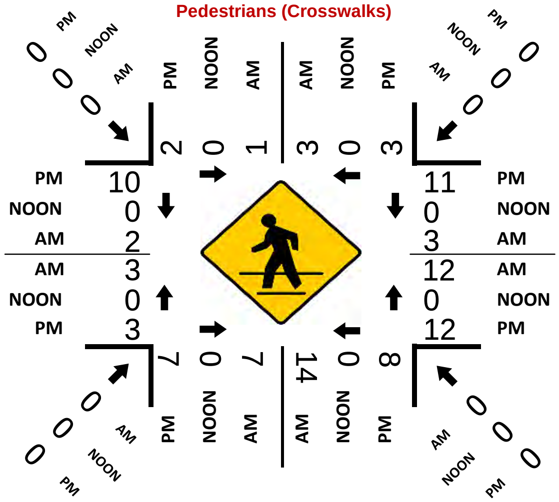
Duals (AM)



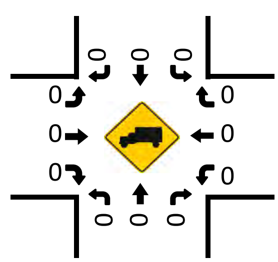
Cars (NOON)



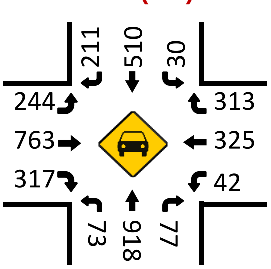
Pedestrians (Crosswalks)



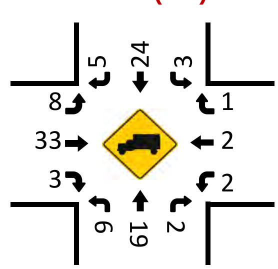
Duals (NOON)



Cars (PM)



Duals (PM)



Prepared by National Data & Surveying Services

SR-118 EB Ramps & Paxton St

Peak Hour Turning Movement Count

ID: 24-020113-005
City: Pacoima

Day: Tuesday
Date: 4/9/2024

	PEAK HOURS	COUNT PERIODS
AM	07:15 AM - 08:15 AM	7:00 AM - 10:00 AM
NOON	NONE	NONE
PM	03:45 PM - 04:45 PM	3:00 PM - 06:00 PM

SR-118 EB Ramps — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	347	0	928	0	254
NOON	0	0	0	0	0
PM	293	0	876	0	350
Lanes	0.5	0	1.5	0	

Paxton St — EASTBOUND

	AM	NOON	PM	Lanes
Departing	946	0	802	
U-Turn	0	0	0	0
Left	209	0	276	1
Thru	446	0	549	2
Right	0	0	0	0

Paxton St — WESTBOUND

	PM	NOON	AM	Lanes
Right	74	0	45	0
Thru	509	0	599	2
Left	0	0	0	0
U-Turn	0	0	0	0
Departing	1425	0	1374	

SR-118 EB Ramps — NORTHBOUND

	Departing	U-Turn	Left	Thru	Right
Lanes		0	0	0	0
PM	0	0	0	0	0
NOON	0	0	0	0	0
AM	0	0	0	0	0

CONTROL

Signalized

	AM	NOON	PM
TEV	2574	0	2577
PHF	0.95		0.96

Cars (AM)

	Left	Thru	Right
Southbound	887	0	341
Eastbound	197	430	0
Westbound	0	566	42
Northbound	0	0	0

Duals (AM)

	Left	Thru	Right
Southbound	31	0	6
Eastbound	10	13	0
Westbound	0	25	2
Northbound	0	0	0

Cars (NOON)

	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Duals (NOON)

	Left	Thru	Right
Southbound	0	0	0
Eastbound	0	0	0
Westbound	0	0	0
Northbound	0	0	0

Cars (PM)

	Left	Thru	Right
Southbound	823	0	272
Eastbound	271	534	0
Westbound	0	496	72
Northbound	0	0	0

Duals (PM)

	Left	Thru	Right
Southbound	34	0	19
Eastbound	3	8	0
Westbound	0	10	2
Northbound	0	0	0

Pedestrians (Crosswalks)

Crosswalk	Direction	AM	NOON	PM
North	Eastbound	1	0	3
North	Westbound	1	0	0
South	Eastbound	0	0	0
South	Westbound	0	0	0
West	Southbound	0	0	0
West	Northbound	0	0	0
East	Southbound	0	0	0
East	Northbound	0	0	0
Diagonal NW–SE		0	0	0
Diagonal NE–SW		0	0	0
Diagonal SW–NE		0	0	0
Diagonal SE–NW		0	0	0

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

11623 Glenoaks Blvd
LADOT Case No. SFV24-117436
LADOT ID No. 57816

Date: September 5, 2024

To: Claudia Rodriguez, Senior City Planner
Department of City Planning

Vicente Cordero

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION ASSESSMENT FOR THE PROPOSED MIXED-USE PROJECT AT 11623 GLENOAKS BOULEVARD (CPC-2024-3390-DB-PR-HCA/ENV-2024-3391-EAF)**

The Los Angeles Department of Transportation (LADOT) has reviewed the transportation assessment submitted by Fehr & Peers, Inc. dated August 2024, for the proposed mixed-use project located at 11623 Glenoaks Boulevard in the Pacoima Community Planning Area of the City of Los Angeles. On July 30, 2019, pursuant to Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the State's California Environmental Quality Act (CEQA) Guidelines, the City of Los Angeles adopted vehicle miles traveled (VMT) as the criteria by which to determine transportation impacts under CEQA. Based on the VMT thresholds established in LADOT's Transportation Assessment Guidelines (TAG), the proposed project would not result in a significant transportation impact on VMT as described below.

DISCUSSION AND FINDINGS

A. Project Description
The proposed project consists of the construction of a seven-story building with 218 market-rate multi-family residential dwelling units, 28 income-restricted multi-family residential dwelling units, and a 28,881 square feet (SF) of supermarket space. The project site is currently occupied as a California Department of Motor Vehicles (DMV) office building that is 20,145 SF. This will be removed to accommodate the project. The project proposes to provide 320 vehicle parking spaces within an on-site parking garage. Vehicular access to the project site will be provided via one new two-way driveways along Glenoaks Boulevard which would lead to two basement level parking garages. The project is expected to be completed by the year 2027.

B. Freeway Safety Analysis
Per the Interim Guidance for Freeway Safety Analysis memorandum issued by LADOT on May 1, 2020 to address Caltrans safety concerns on freeways, the study addressed the project's effects on vehicle queuing on freeway off-ramps. Such an evaluation measures the project's potential to lengthen a forecasted off-ramp queue and create speed differentials between vehicles exiting the freeway off-ramps and vehicles operating on the freeway mainline. The evaluation identified the number of project trips expected to be added to nearby freeway off-ramps serving the project site. It was determined that project traffic at each freeway off-ramp will exceed 25 peak-hour trips to the following freeway off-ramp:

- SR-118 Eastbound Off-Ramp at Paxton Street (PM Peak hour)

The SR-118 Westbound Off-ramp at Glenoaks Boulevard was studied for potential queuing impacts.

The project's impact on the freeway was assessed with the intersection operations analysis, Synchro 12 Software for the Opening year (2027) No Project and Opening year (2027) Plus Project scenarios as shown on **Attachment B**. The estimated off-ramp queues at the SR-118 off-ramp and intersections are not projected to exceed ramp capacity for both Opening Year and Opening Year Plus Project scenarios for AM and PM peak hours. The project is projected not to add more than two car lengths to off-ramp queueing during either peak hours. Therefore the project is not projected to cause a significant safety impact to either SR-118 Eastbound Off-ramp at Paxton Street or the SR-118 Westbound Off-ramp at Glenoaks Boulevard.

C. CEQA Screening Threshold

Prior to accounting for trip reductions resulting from the application of Transportation Demand Management (TDM) Strategies, a trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips (DVT) screening threshold. Using the City of Los Angeles VMT Calculator Version 1.4 tool, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition as well as applying trip generation adjustments when applicable. This trip generation adjustment is based on sociodemographic data and the built environment factors of the project's surroundings. It was determined that the project **does** exceed the net 250 daily vehicle trips threshold. A copy of the VMT calculator-screening pages is provided in **Attachment A.** Additionally, the analysis included further discussion of the CEQA transportation impact thresholds:

1. **Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies**
   The transportation assessment evaluated the proposed project for conformance with the adopted City's transportation plans and policies for all travel modes. It was determined by the assessment that the project does not obstruct or conflict with the City's development policies and standards for the transportation system. Therefore, no project or cumulative significant transportation impact was identified for this threshold.

2. **Threshold T-2.1: Causing Substantial Vehicle Miles Traveled**
   Using the VMT Calculator, the assessment determined that the project would generate a 3,697 net increase in DVT and a 33,771 net increase in daily VMT, therefore further analysis was required. The Project would not result in a significant VMT impact as discussed below under Section D, CEQA Transportation Analysis.

3. **Threshold T-3: Substantially Increasing Hazards Due To a Geometric Design Feature or Incompatible Use**
   The Project does not involve any design features that are unusual for the area or any incompatible use.

D. CEQA Transportation Analysis

The new LADOT Transportation Assessment Guidelines (TAG) provide instructions on preparing transportation assessments for land use proposals and define the significant impact thresholds. The LADOT VMT Calculator tool measures project impact in terms of Household VMT per Capita, and Work VMT per Employee. LADOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the North Valley APC area, in which the Project is located, the following thresholds have been established:

- Daily Household VMT per Capita: 9.2
- Daily Work VMT per Employee: 15.0

As cited in the VMT analysis report prepared by Fehr & Peers, Inc., the VMT generated by the project results in 8.3 Household VMT per Capita and the Work VMT per Employee is not applicable. These results are acceptable for the North Valley APC; therefore, it is concluded that the implementation of the proposed project will **not** result in a significant VMT impact.

E. Access and Circulation
The access and circulation analysis included a delay study of the following intersections using the Highway Capacity Manual (HCM) methodology which calculates the amount of delay per vehicle based on the intersection traffic volumes, lane configurations, and signal timing:

- Glenoaks Boulevard & Project Driveway
- Glenoaks Boulevard & Vaugh Street
- Glenoaks Boulevard & Eustace Street
- Glenoaks Boulevard & SR-118 WB Ramps
- Glenoaks Boulevard & Paxton Street
- SR-118 EB Ramps & Paxton Street

Existing and Cumulative Traffic Conditions
Traffic volume counts were conducted on Spring of 2024 for the AM and PM peak hours at 7-10 AM and 3-6 PM respectively. Future traffic volumes have been increased by 1 percent per year and include other related development projects traffic volume.

Under the HCM methodology, the level of service (LOS) at signalized and unsignalized intersections is defined based on the delay experienced per vehicle. The results for the Existing 2024, Opening Year 2027 Plus Project, and Opening 2027 No Project, and Future 2027 With Project traffic conditions along with the Existing 2023 Plus Project and Future 2027 Plus Project traffic conditions at the project driveway are shown in **Attachment C**.

PROJECT REQUIREMENTS

A. TDM Strategies
The project's VMT analysis includes two TDM measures as Project Design Features that reduce trips and VMT for the project:

- **Reduced Parking Supply:** This strategy permissively changes the on-site parking supply to provide less than the amount of vehicle parking required by direct application of the LAMC 12.21.A.4.a without consideration of parking reduction mechanisms. The proposed project provides fewer parking spaces (i.e. a total of 320-parking spaces) than required by the City's code (i.e. a total of 346 parking spaces) for vehicular parking.

- **Unbundled Parking:** Unbundled parking is to be provided with a monthly fee of $55 to residential leases.

- **Bicycle Parking per LAMC:** This strategy involves the implementation of short and long-term bicycle parking to support safe and comfortable bicycle travel by providing parking facilities at destinations under existing LAMC regulations applicable to the project (LAMC Section

12.21.A.16). The project proposes to provide 292 bicycle parking spaces (264 long-term spaces and 28 short-term spaces).

B. Non-CEQA-Related Requirements and Considerations
To comply with transportation and mobility goals and provisions of adopted City plans and ordinances, the applicant should be required to implement the following:

1. Parking Requirements
The project proposes to provide a total of 320 vehicular parking spaces onsite within subterranean parking levels for residents and customers. A total of 292 bicycle parking spaces including 264 long-term and 28 short-term spaces would also be provided on-site. The applicant should check with the Departments of Building and Safety and City Planning on the number of Code-required parking spaces needed for this project.

2. Highway Dedication and Street Widening Requirements
Per the Mobility Element of the General Plan, **Glenoaks Boulevard,** is designated as a Boulevard II, requiring a 40-foot half-width roadway within a 55-foot half-width right-of-way. A five-foot dedication is needed to satisfy the right-of-way standard. The applicant should check with the Bureau of Engineering's Land Development Group to determine if there are any other applicable highway dedication, street widening, and/or sidewalk requirements for this project.

3. Project Access and Circulation
Vehicular access to the project's subterranean garage will be provided via one existing driveway on the northeast end of the site that will be shifted to the northeast end of the site to the property line on Glenoaks Boulevard. The proposed driveway will be a left and right ingress and a right-out only egress. The proposed site plan is illustrated in **Attachment D.** The review of this study does not constitute approval of the dimensions for any new proposed driveway. Review and approval of the driveways should be coordinated with LADOT's Citywide Planning Coordination Section (6262 Van Nuys Boulevard, 3rd Floor, Room 320, ph. 818-374-4699). To minimize and prevent last-minute building design changes, the applicant should contact LADOT for driveway width and internal circulation requirements before building or parking layout design begins. The applicant should check with City Planning regarding the project's driveway placement and design.

4. High Injury Network
The City of Los Angeles Vision Zero identified a strategic plan to reduce traffic deaths to zero by focusing on engineering, enforcement, education, and evaluation. The LADOT identified a High Injury Network (HIN) of city streets. The HIN identifies streets with a high number of traffic-related severe injuries and deaths across all modes of travel with emphasis on those involving pedestrians and cyclists. Glenoaks Boulevard is part of the HIN network.

5. TDM Ordinance Requirements
The TDM Ordinance (LAMC 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods,

- Rely on a broader range of strategies that can be updated to keep pace with technology, and
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although yet to be adopted, LADOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected in the near future. The updated ordinance is expected to be completed before the anticipated construction of this project if approved.

6. Construction Impacts
   LADOT recommends that a construction worksite traffic control plan be submitted to LADOT's Citywide Temporary Traffic Control Section for review and approval before the start of any construction work. Refer to https://ladot.lacity.org/businesses/temporary-traffic-control-plans to coordinate the review of the worksite traffic control plan. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. LADOT also recommends that construction-related traffic be restricted to off-peak hours to the extent possible.

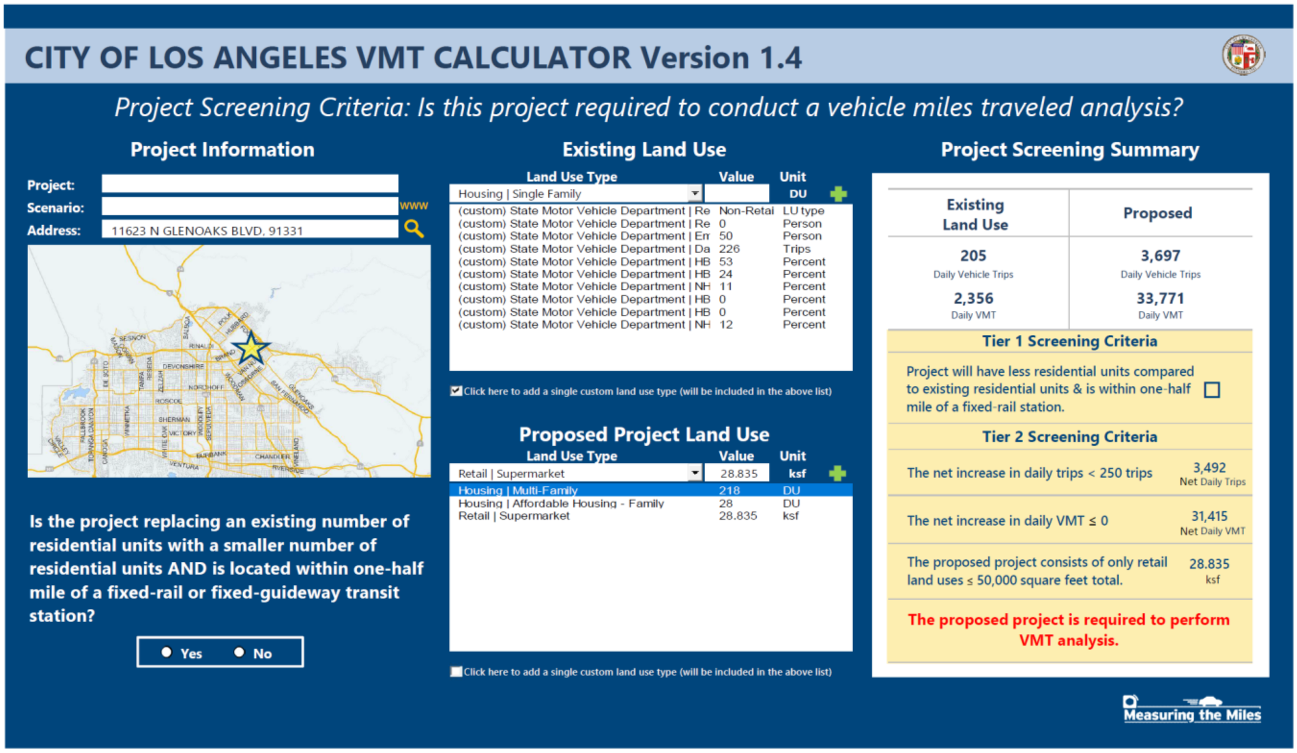
7. Development Review Fees
   Section 19.15 of the LAMC identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

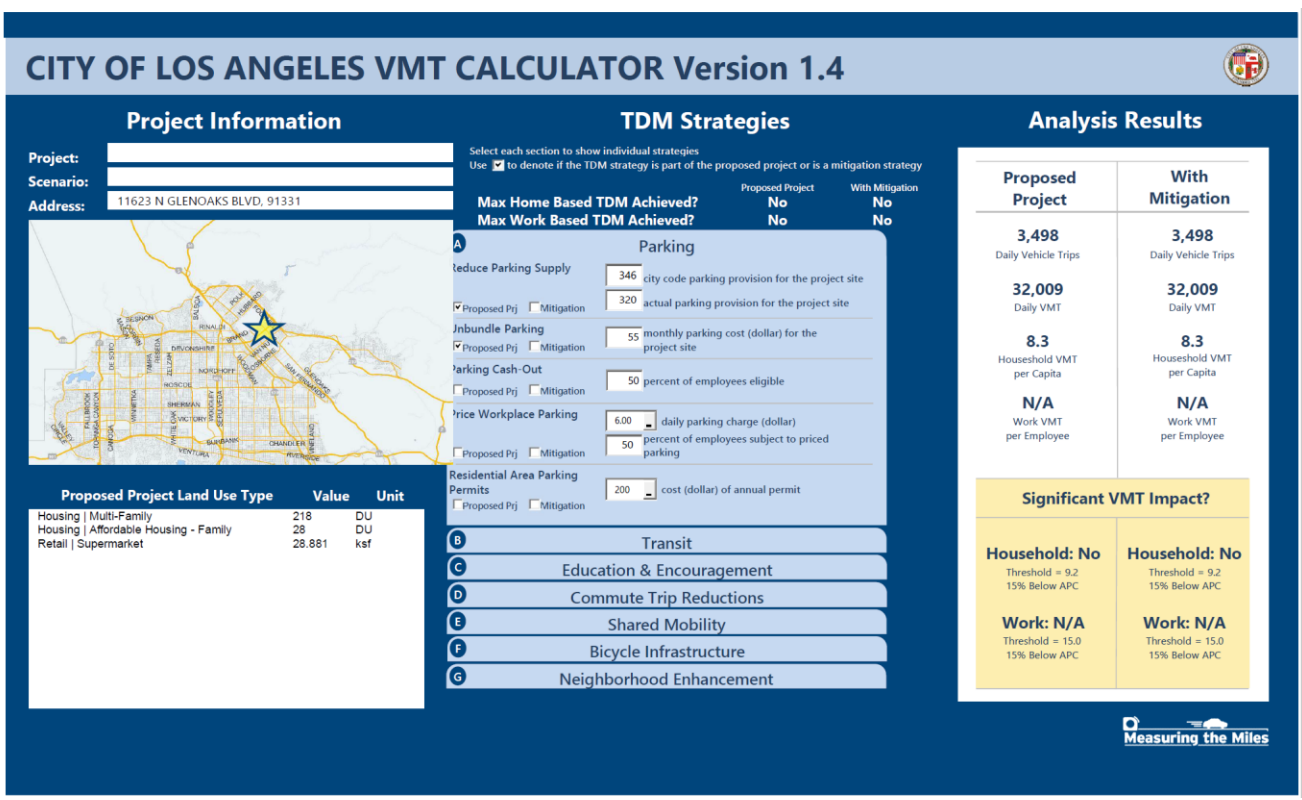
If you have any questions, please contact Miguel Crisostomo of my staff at miguel.crisostomo@lacity.org.

Attachments
F:\Projects\SFV\57816-11623 Glenoaks Blvd

c: William Dahlin, Council District 7
Steve Rostam, LADOT East Valley District
Ali Nahass, BOE Valley District
Esther Ahn, LACP Valley Planning Division
Phillip Bazan, LACP Valley Planning Division
Quyen Phan, BOE Land Development Group
Andrew Jarnagin, Fehr & Peers, Inc.

Attachment A
VMT Calculator Results





Attachment B
Freeway Safety Analysis Queuing Lengths

Table 12: Peak-Hour Off-Ramp 95th Percentile Queue Lengths in Opening Year (2027) Conditions[1]

Off-Ramp	Intersection Control	Turn Movement	Storage Length	Opening Year (2027) No Project			Opening Year (2027) Plus Project			
				AM Peak	PM Peak	Queue Exceeds Storage?	AM Peak	PM Peak	Queue Exceeds Storage?	Significant Impact?
SR-118 EB at Paxton St	Signal	WBL WBL/T/R	1400	450	275	No	450	275	No	No
SR-118 WB at Glenoaks Blvd	Signal	SBL SBL/R	1550	450	400	No	450	425	No	No

Notes

1. Queue lengths are outputs derived from the Opening Year Conditions Synchro peak hour models developed for this Project. The 95th percentile queue length is a conservative assumption commonly employed for intersection design considerations and does not represent the typical queue length an average driver would experience.

2. Movement acronyms represent the cardinal direction (first two letters) and the turn movement (last letter). For example, NBL=Northbound-left movement, NBR =Northbound-right movement, and NBT = Northbound-through movement. Shared indicates that multiple movements are allowed from a single lane.

3. The storage length shown (measured in feet based on online aerial photographs) is the sum of each lane's storage lengths. Ramp storage lengths were determined assuming that 100% of the storage length on each lane of the ramp from the stop line to the gore point could be used. When an auxiliary lane was present, 50% of the length of the auxiliary lane was added to the ramp storage length.

4. Storage lengths and queues are shown in feet and rounded to the 25 feet. Queues represent the sum of each lane's queues.

Attachment C
Summary of LOS (Level of Service)

Table 17: Opening Year (2027) Plus Project LOS and Queues

#	Study Intersection	Control Type	Opening Year (2027) No Project				Opening Year (2027) Plus Project			Movement[1]	Storage Length	Peak Hour 95th Percentile Queue[3] (ft.)				Project Contributes to Unacceptable Queuing[2]	
			Intersection LOS (AM/PM Peak Hour)[4]	Movement[1]	Peak Hour Directional LOS		Intersection LOS (AM/PM Peak Hour)[4]	Peak Hour Directional LOS				Opening Year (2027) No Project		Opening Year (2027) Plus Project			
					AM	PM		AM	PM			AM	PM	AM	PM	AM	PM
1	Glenoaks Blvd & Vaughn St	Signalized	D/C	NBL	C	B	D/C	C	B	NBL	110	125	50	125	50	No	No
				NBT	C	C		C	C	NBT	1,800	300	250	300	250	No	No
				NBR	B	B		B	B	NBR	110	<25	<25	<25	<25	No	No
				SBL	C	C		C	C	SBL	120	50	50	50	50	No	No
				SBT	F	C		F	C	SBT	2,600	650	500	650	500	No	No
				SBR	B	B		B	B	SBR	50	<25	<25	<25	<25	No	No
				EBL/T/R	C	C		C	C	EBL/T/R	575	325	125	325	125	No	No
				WBL/T/R	D	D		D	D	WBL/T/R	1,225	350	225	350	225	No	No
2	Glenoaks Blvd & Eustace St	SSSC	F/E	NBT/R	-	-	F/E	-	-	NBT/R	350	-	-	-	-	-	-
				SBT	-	-		-	-	SBT	1,300	-	-	-	-	-	-
				SBL	B	B		B	B	SBL	300	<25	<25	<25	<25	No	No
				WBL/R	F	E		F	E	WBL/R	575	75	25	75	25	No	No
3	Glenoaks Blvd & SR-118 WB Ramps	Signalized	C/C	NBL	F	C	D/C	F	C	NBL	400	425	400	425	375	No	No
				NBT	A	A		A	A	NBT	700	125	125	125	150	No	No
				SBT	B	B		B	B	SBT	1,800	75	75	75	100	No	No
				SBR	C	E		C	E	SBR	100	100	500	100	500	No	No
				WBL/T/R	C	D		C	D	WBL/T/R	975	275	175	275	175	No	No
4	Glenoaks Blvd & Paxton St	Signalized	C/C	NBL	C	B	C/C	C	B	NBL	120	100	75	100	75	No	No
				NBT	C	C		C	C	NBT	2,700	350	325	350	350	No	No
				NBR	C	C		C	C	NBR	-	-	-	-	-	-	-
				SBL	B	B		B	B	SBL	130	<25	25	<25	25	No	No
				SBT	A	A		A	A	SBT	799	175	100	175	100	No	No
				SBR	A	A		A	A	SBR	150	25	25	25	25	No	No
				EBL	D	C		D	D	EBL	150	325	250	325	300	No	No
				EBT	C	C		C	C	EBT	1,300	475	425	500	425	No	No
				EBR	C	C		C	C	EBR	-	-	-	-	-	-	-
				WBL	E	D		E	D	WBL	80	150	100	150	100	No	No
				WBT	D	D		D	D	WBT	2,400	250	250	250	250		
				WBR	D	D		D	D	WBR	-	-	-	-	-	-	-
5	Paxton St & SR-118 EB Ramps	Signalized	D/C	SBL/R	D	D	D/D	E	E	SBL/R	900	450	400	450	425	No	No
				EBL	E	E		E	D	EBL	125	200	250	200	250	No	No
				EBT	B	B		B	B	EBT	900	100	100	100	100	No	No
				WBT/R	B	B		B	B	WBT/R	1,300	125	100	125	100	No	No

1. EBL= Eastbound left, EBT = Eastbound through, EBR = Eastbound right, WBL = Westbound left, WBT = Westbound through, WBR = Westbound right, NBL = Northbound left, NBT = Northbound through, NBR = Northbound right, SBL = Southbound left, SBT = Southbound through, SBR = Southbound right.

2. Unacceptable queuing as defined in the report text, per the *Los Angeles Department of Transportation Transportation Assessment Guidelines* (August 2022).

3. Queue lengths are outputs derived from the Opening Year Conditions Synchro model developed for this Project. The 95th percentile queue length is a conservative assumption commonly employed for intersection design considerations and does not represent the typical queue length an average driver would experience.

4. Intersection LOS for unsignalized intersections reported using the worst-performing movement.

Table 15: Existing (2024) Intersections Level of Service

NO.	Intersection	Control Type	Peak Hour	Existing (2024)	
				Average Vehicular Delay (sec/veh) [b]	LOS
1	Glenoaks Blvd & Vaughn St	Signalized	AM	35.2	D
			PM	23.2	C
2	Glenoaks Blvd & Eustace St	SSSC [a]	AM	45.8	E
			PM	32.9	D
3	Glenoaks Blvd & SR-118 WB Ramps	Signalized	AM	26.2	C
			PM	32.7	C
4	Glenoaks Blvd & Paxton St	Signalized	AM	22.3	C
			PM	23.3	C
5	SR-118 EB Ramps & Paxton St	Signalized	AM	24.4	C
			PM	24.3	C

Note:

[a] SSSC = Side Street Stop-Controlled

[b] Worst-performing movement reported for LOS and delay for unsignalized intersections.

Attachment D
Project Site Plan

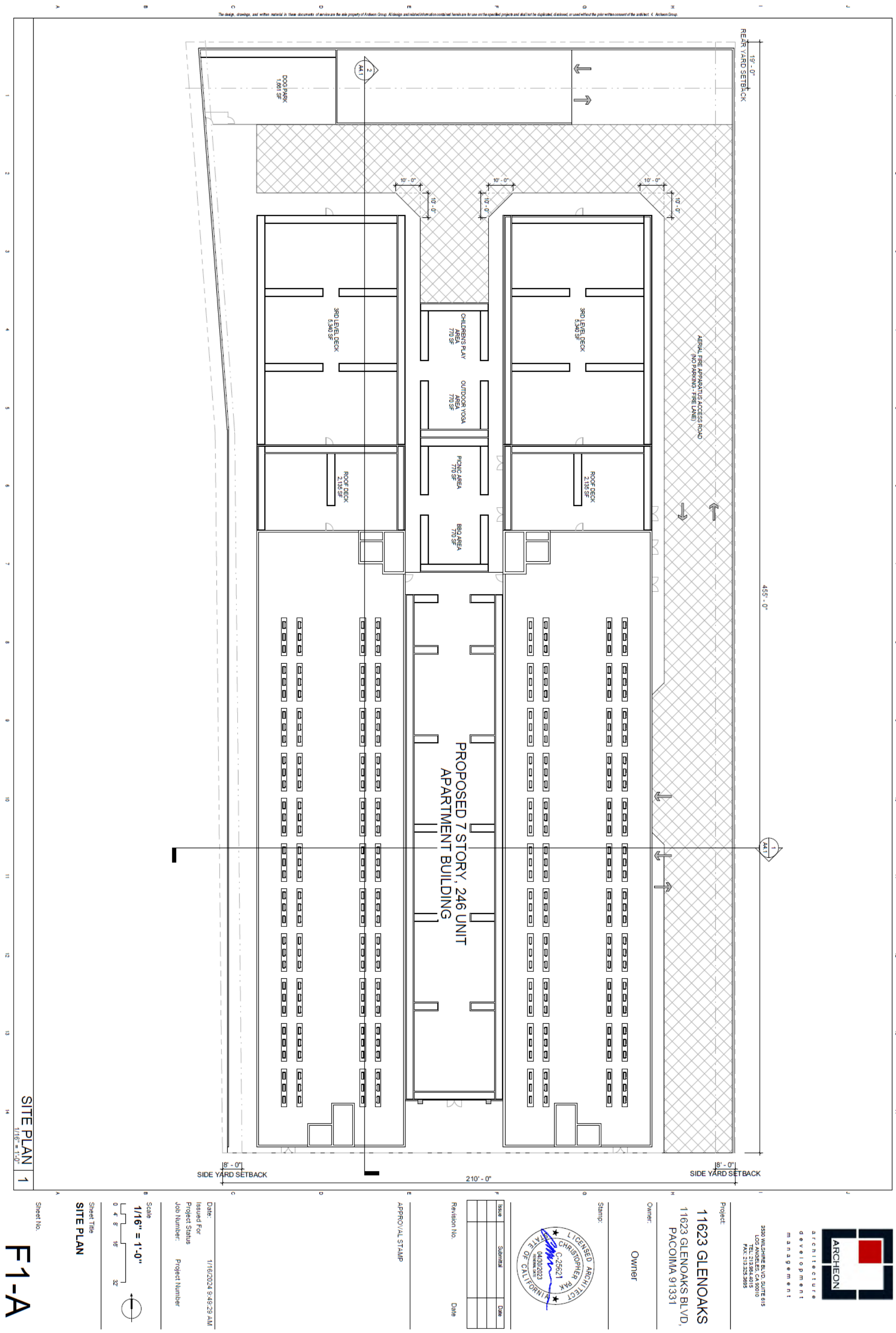


EXHIBIT D

Public Correspondence

LOZEAU DRURY LLP
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1939 Harrison Street, Ste. 150
Oakland, CA 94612
www.lozeaudrury.com
richard@lozeaudrury.com

Via Email

October 10, 2024

Esther Ahn, City Planner
City of Los Angeles
200 North Spring Street, Room 763
Los Angeles, CA 90012
esther.ahn@lacity.org

Holly L. Wolcott, City Clerk
City of Los Angeles
200 N. Spring Street, Room 360
Los Angeles, CA 90012
cityclerk@lacity.org

Re: CEQA and Land Use Notice Request for the 11623 Glenoaks Boulevard Project (CPC-2024-3390-DB-PR-VHCA, ENV-2024-3391-CE)

Dear Ms. Ahn and Ms. Wolcott,

I am writing on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the 11623 Glenoaks Boulevard Project (CPC-2024-3390-DB-PR-VHCA, ENV-2024-3391-CE), including all actions related or referring to the proposed seven-story mixed-use building with 246 units, including 28 affordable units, and 320 parking spaces, located at 11623 Glenoaks Boulevard in the City of Los Angeles ("Project").

We hereby request that the City of Los Angeles ("City") send by electronic mail, if possible or U.S. mail to our firm at the address below notice of any and all actions or hearings related to activities undertaken, authorized, approved, permitted, licensed, or certified by the City and any of its subdivisions, and/or supported, in whole or in part, through contracts, grants, subsidies, loans or other forms of assistance from the City, including, but not limited to the following:

- Notice of any public hearing in connection with the Project as required by California Planning and Zoning Law pursuant to Government Code Section 65091.
- Any and all notices prepared for the Project pursuant to the California Environmental Quality Act ("CEQA"), including, but not limited to:
  - Notices of any public hearing held pursuant to CEQA.
  - Notices of determination that an Environmental Impact Report ("EIR") is required for the Project, prepared pursuant to Public Resources Code Section 21080.4.
  - Notices of any scoping meeting held pursuant to Public Resources Code Section 21083.9.
  - Notices of preparation of an EIR or a negative declaration for the Project, prepared pursuant to Public Resources Code Section 21092.
  - Notices of availability of an EIR or a negative declaration for the Project, prepared pursuant to Public Resources Code Section 21152 and Section 15087 of Title 14 of the California Code of Regulations.
  - Notices of approval and/or determination to carry out the Project, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
  - Notices of any addenda prepared to a previously certified or approved EIR.

- Notices of approval or certification of any EIR or negative declaration, prepared pursuant to Public Resources Code Section 21152 or any other provision of law.
- Notices of determination that the Project is exempt from CEQA, prepared pursuant to Public Resources Code section 21152 or any other provision of law.
- Notice of any Final EIR prepared pursuant to CEQA.
- Notice of determination, prepared pursuant to Public Resources Code Section 21108 or Section 21152.

Please note that we are requesting notices of CEQA actions and notices of any public hearings to be held under any provision of Title 7 of the California Government Code governing California Planning and Zoning Law. **This request is filed pursuant to Public Resources Code Sections 21092.2 and 21167(f), and Government Code Section 65092**, which require local counties to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Please send notice by electronic mail or U.S. Mail to:

Richard Drury
Madeline Dawson
Layne Fajeau
Chase Preciado
Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612
richard@lozeaudrury.com
madeline@lozeaudrury.com
layne@lozeaudrury.com
Chase@lozeaudrury.com

Please call if you have any questions. Thank you for your attention to this matter.

Sincerely,

Madeline Dawson

Madeline Dawson
Lozeau | Drury LLP

Los Angeles Unified School District

Office of Environmental Health and Safety

ALBERTO M. CARVALHO
Superintendent

CARLOS A. TORRES
Director, Environmental Health and Safety

JENNIFER FLORES
Deputy Director, Environmental Health and Safety

September 20, 2024

Esther Ann

Via Email: esther.ahn@lacity.org

Subject: 11623 North Glenoaks Boulevard

Dear Ms. Ann,

I am writing you on behalf of the Los Angeles Unified School District (LAUSD) regarding the proposed mixed-use project to be constructed at 11623 North Glenoaks Boulevard. The proposed project would demolish an existing Department of Motor Vehicles building and will include development of a new 7 story, 70-foot mixed-use building including 246 residential units, and approximately 28,881 square feet of ground floor commercial. The project proposes to provide 320 parking spaces within 2 subterranean levels. The proposed project site is located approximately 215 feet to the north of LAUSD's Vaughn Next Century Learning Center.

Based on the location of the proposed development, it is our opinion that significant environmental impacts on the surrounding community (air quality, noise, traffic, pedestrian safety) have the potential to occur without the implementation of specific mitigation measures. Since the project has the potential to create a significant impact on LAUSD schools, mitigation measures designed to help reduce or eliminate such impacts are included in this letter.

Air Quality

District students and school staff are considered as sensitive receptors to air pollution impacts according to the City of Los Angeles. Construction activities for the proposed project would result in short term impacts on ambient air quality in the area from construction equipment emissions and fugitive dust, particularly during the grading and excavation phases of the proposed project. To ensure that effective mitigation is applied to reduce construction air pollutant impacts on Vaughn Next Century Learning Center students and staff, we ask that the following language be included as either a mitigation measure or incorporated into the project's construction contract(s):

- Implement all applicable provisions of Rule 403 for fugitive dust control during construction of the Project.
- Utilize low emission "clean diesel" equipment with new or modified engines manufactured to meet Tier 4 specifications or retrofitted to comply with CARB's verified diesel emission control strategy (VDECS).
- Construction vehicles shall not idle in excess of five minutes.
- Ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications.

- Water/mist soil as it is being excavated and loaded onto the transportation trucks.
- Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site.
- Minimize soil drop height into transportation trucks or stockpiles during dumping.
- Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed.
- Place stockpiled soil on polyethylene sheeting and cover with similar material.
- Place stockpiled soil in areas shielded from prevailing winds.
- Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers).
- Install wheel washers (or steel shaker plates) where vehicles enter and exit unpaved roads onto paved roads, or wash off trucks and any equipment leaving the site each trip.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph).
- Excavation and transportation of soil known to contain hazardous substances should be limited to periods when school is not in session.

Noise

Noise created by construction activities may affect the school in proximity to the proposed project site. These construction activities include grading, earth moving, hauling, and use of heavy equipment.

LAUSD established maximum allowable noise levels to protect students and staff from noise impacts generated in terms of Leq. These standards were established based on regulations set forth by the California Department of Transportation and the City of Los Angeles. LAUSD's exterior noise standard is 67 dBA Leq and the interior noise standard is 45 dBA Leq. A noise level increase of 3 dBA or more over ambient noise levels is considered significant for existing schools and would require mitigation to achieve levels within 2 dBA of pre-project ambient level. To ensure that effective conditions are employed to reduce construction related noise impacts on the campus, we ask that the following language be included in the recommended conditions for noise impacts:

If the proposed mitigation measures do not reduce noise impacts to a level of insignificance, the project applicant shall develop new and appropriate measures to effectively mitigate construction related noise at the affected schools. Provisions shall be made to allow the school and or designated representative(s) to notify the project applicant when such measures are warranted.

Traffic/Transportation

LAUSD's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LAUSD Transportation Branch of the expected start and ending dates for any phase of the project that involves the hauling off construction debris and fill material off-site, or the delivery of construction materials that may affect traffic at Vaughn Next Century Learning Center. To ensure that effective mitigations are employed to reduce construction and operation related transportation impacts on District sites, we ask that the following language be included in the project's construction contract(s):

- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students. Degarmo Avenue in the vicinity of Vaughn Next Century Learning Center shall remain open at all times during construction
    - If Degarmo Avenue are required to be closed, then all attempts will be made to do so when Vaughn Next Century Learning Center is not in session
    - If Degarmo Avenue must be closed while Vaughn Next Century Learning Center is in session, the Project Manager or designed shall coordinate with LAUSD Transportation Branch and Vaughn Next Century Learning Center Site Administrator to minimize conflict and disruption of school activities.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.
- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.

Pedestrian Safety

Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective mitigations are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the following language be included in the project's construction contract(s)::

- Contractors must maintain ongoing communication with Vaughn Next Century Learning Center Site Administrator, providing sufficient notice to forewarn children and parents when existing pedestrian routes to Vaughn Next Century Learning Center may be impacted.
- Contractors must maintain safe and convenient pedestrian routes to Carson-Gore Academy. The District will provide School Pedestrian Route Maps upon your request.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.
- Haul routes are not to pass by Vaughn Next Century Learning Center along Washington Boulevard unless school is not in session.
- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.
- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.
- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.
- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed project that must be addressed to ensure the welfare of the students attending Carson-Gore Academy, their teachers and the staff, as well as to assuage the concerns of the parents of these students. Therefore, the measures set forth in these comments should be adopted as conditions of project approval to offset unmitigated impacts on the affected school students and staff.

Thank you for your attention to this matter. If you need additional information, please contact me at (213) 241-3417.

Julian F. Capata

Julian Capata
CEQA Project Manager

CC: Fidel Rameriz, Chief Executive Officer, Vaughn Next Century Learning Center

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Los Angeles Unified School District

Office of Environmental Health and Safety

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Superintendent

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Director, Environmental Health and Safety

JENNIFER FLORES
Deputy Director, Environmental Health and Safety

Sent via email

September 23, 2024

Esther Ahn
Department of City Planning
200 N. Spring Street
Los Angeles, CA 90012

PROJECT LOCATION: 11623 Glenoaks Boulevard
CASE NUMBER: ENV-2024-3391-CE, CPC-2024-3390-DB-PR-HCA

Presented below are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) regarding ENV-2024-3391-CE, CPC-2024-3390-DB-PR-HCA. The Project site is 185 feet from Vaughn Next Century Learning Center located at 13330 Vaughn Street, a District school with 1,155 students.

The proposed Project will demolish the existing Department of Motor Vehicles Driver's License Processing Center building to construct a new, seven-story, 367,689-square-foot, mixed-use building with 246 apartments and retail on the ground-floor

The District requests that our schools be recognized as sensitive receptors and that any environmental analysis required under CEQA specifically addresses potential impacts to our school communities. Specific areas of concern where the Project's construction and operation would have a significant effect on District's sites include Air Quality, Noise and Vibration, and Transportation/Traffic (including pedestrian safety). Based on the extent/location of the proposed development, it is our opinion that environmental impacts on the surrounding area will likely occur. Since the project would have an environmental impact on students and residents, recommended measures designed to help reduce or eliminate potential impacts are included in this response.

Work with LA Unified

Project applicant must coordinate any construction activities with LA Unified to ensure safety of students and their families and minimize disruptions to school activities and access to campus. Effective strategies of avoiding significant impacts on school operations include:

- Completing construction activities such as demolition and excavation when the schools are not in session (summer and winter breaks, holidays, weekends, and after hours).
- Including school and District representatives to review construction management plans, construction outreach plans, and participation in weekly construction meetings.
- Obtaining prior authorization from the District for any easements and project activities on or surrounding District properties.
- Working with the District in identifying appropriate construction mitigation programs.

Air Quality

District students and school staff should be considered sensitive receptors to air pollution impacts. To ensure that effective measures are applied to further reduce construction air pollutant impacts, we ask that the City incorporate into the project's conditions or mitigation measures the following language:

- Implement all applicable provisions of Rule 403 for fugitive dust control during construction of the Project.
- Utilize low emission "clean diesel" equipment with new or modified engines manufactured to meet Tier 4 specifications or retrofitted to comply with CARB's verified diesel emission control strategy (VDECS).
- Construction vehicles shall not idle in excess of five minutes.
- Ensure that construction equipment is properly tuned and maintained in accordance with manufacturer's specifications.
- Water/mist soil as it is being excavated and loaded onto the transportation trucks.
- Water/mist and/or apply surfactants to soil placed in transportation trucks prior to exiting the site.
- Minimize soil drop height into transportation trucks or stockpiles during dumping.
- Cover the bottom of the excavated area with polyethylene sheeting when work is not being performed.
- Place stockpiled soil on polyethylene sheeting and cover with similar material.
- Place stockpiled soil in areas shielded from prevailing winds.
- Sweep streets at the end of the day if visible soil material is carried onto adjacent public paved roads (recommend water sweepers).
- Install wheel washers (or steel shaker plates) where vehicles enter and exit unpaved roads onto paved roads or wash off trucks and any equipment leaving the site each trip.
- Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour (mph).
- Excavation and transportation of soil known to contain hazardous substances should be limited to periods when school is not in session.

Noise and Vibration

Noise and vibration created by construction activities may affect schools in proximity to the development. These construction activities include grading, earth moving, hauling, and use of heavy equipment.

LA Unified established maximum allowable noise levels to protect students and staff from noise impacts generated in terms of Leq. These standards were established based on regulations set forth by the California Department of Transportation. LA Unified's exterior noise standard is 67 dBA Leq and the interior noise standard is 45 dBA Leq. A noise level increase of 3 dBA or more over ambient noise levels is considered significant for existing schools and would require mitigation to achieve levels within 2 dBA of pre-project ambient level. To ensure that effective measures are employed to reduce construction related noise impacts on the campus, we ask that that the City incorporate into the project's conditions or mitigation measures the following language:

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- Provisions shall be made to allow the school and or designated representative(s) to notify the project applicant when noise impacts to the schools exceed the District's noise standards.
- All pile driving equipment shall be equipped with noise control devices and/or shall implement noise buffers with minimum quieting factor of 10dBA, to the extent feasible. If possible, drilled piles are preferred to driven piles.
- Demolition activities shall be scheduled for when school is not in session.

Traffic/Transportation

LA Unified's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LA Unified Transportation Branch of the expected start and ending dates for various portions of the project that may affect traffic within nearby school areas. To ensure that effective conditions are employed to reduce construction and operation related transportation impacts on District sites, including the net increase of 1,000 or more daily vehicle trips, we ask that the following language be included in the recommended conditions for traffic impacts:

- School buses must have unrestricted access to schools.
- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.
- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.
- Parents dropping off their children must have access to the passenger loading areas.

Pedestrian Safety

Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective conditions are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the City incorporate into the project's conditions or mitigation measures the following language:

- Contractors must maintain ongoing communication with LA Unified school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.
- Contractors must maintain safe and convenient pedestrian routes to all nearby schools.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.
- Haul routes are not to pass by ***any*** school, except when school is ***not*** in session.
- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.
- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.
- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.
- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed Project that must be addressed to ensure the welfare of the students attending schools, their teachers and staff, as well as to inform parents and guardians of these students.

Thank you for your attention to this matter. If you need additional information, please contact me at (213) 241-4210 or at cp-bryan.fernandez@lausd.net.

Sincerely,

Bryan Ramos Fernandez, AICP
CEQA Project Manager
Los Angeles Unified School District (LAUSD)
Office of Environmental Health and Safety (OEHS)
333 S Beaudry Ave., 21st Floor, Los Angeles, CA 90017