



DEPARTMENT OF CITY PLANNING

RECOMMENDATION REPORT

City Planning Commission

Date: January 25, 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>

Case No.: CPC-2022-7854-ZCJ-SPR-WDI

CEQA No.: ENV-2022-7855-MND

Incidental Case: N/A

Council No.: 6 – Padilla

Plan Area: Reseda – West Van Nuys

Specific Plan: None

Certified NC: Lake Balboa

Existing Zones: CR-1VL, (Q)C1-1VL & P-1VL

Proposed Zone: (T)(Q)RAS4-1VL

Applicant: Egish Kuiumjian, Lion Signature, Inc.

Representative: Eric Lieberman, QES, Inc.

Public Hearing: November 14, 2023

Appeal Status: The Zone Change may only be appealed to the City Council by the applicant if denied. The Site Plan Review is appealable to the City Council.

Expiration Date: January 29, 2024

Multiple Approval: Yes

PROJECT LOCATION: 16949-16955 West Sherman Way

PROPOSED PROJECT: The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces.

REQUESTED ACTIONS:

1. Pursuant to CEQA Guidelines Section 15074(b), consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2022-7855-MND ("Mitigated Negative Declaration"), all comments received, the imposition of mitigation measures and the Mitigation Monitoring Program prepared for the Mitigated Negative Declaration;
2. Pursuant to Los Angeles Municipal Code (LAMC) Section 12.32 F, a Zone Change from CR-1VL, (Q)C1-1VL & P-1VL to (T)(Q)RAS4-1VL and pursuant to LAMC Section 11.5.11, the following two developer incentives:

- a. Reduction in parking to allow 160 residential automobile parking spaces in lieu of the 198 residential parking spaces otherwise required; and
- b. Relief from General Plan Footnote 7 to allow for a project to rise to four (4) stories in lieu of three (3) stories;
3. Pursuant to LAMC Section 16.05, a Site Plan Review for any development which creates, or results in, an increase of 50 or more dwelling units; and
4. Pursuant to LAMC Section 12.37, a Waiver of Dedication and Improvements to waive a required future cul-de-sac along Cantlay Street.

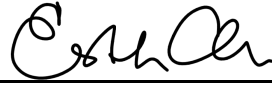
RECOMMENDED ACTIONS:

1. **FIND**, pursuant to CEQA Guidelines Section 15074(b), after consideration of the whole of the administrative record, including the **Mitigated Negative Declaration**, No. ENV-2022-7855-MND (“Mitigated Negative Declaration”), and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment; **FIND** the Mitigated Negative Declaration reflects the independent judgment and analysis of the City; **FIND** the mitigation measures have been made enforceable conditions on the project; and **ADOPT** the Mitigated Negative Declaration and the Mitigation Monitoring Program prepared for the Mitigated Negative Declaration;
2. **RECOMMEND** that the **City Council approve** a Zone Change from CR-1VL, (Q)C1-1VL & P-1VL to (T)(Q)RAS4-1VL, along with the following two (2) requested developer incentives:
 - a. Reduction in parking to allow 160 residential automobile parking spaces in lieu of the 198 residential parking spaces otherwise required; and
 - b. Relief from General Plan Footnote 7 to allow for a project to rise to four (4) stories in lieu of three (3) stories;
3. **APPROVE** the **Site Plan Review** for a development which creates, or results in, an increase of 50 or more dwelling units;
4. **DISMISS** a Waiver of Dedication and Improvements to waive a required future cul-de-sac along Cantlay Street;
5. **ADOPT** the attached Conditions of Approval;
6. **ADOPT** the attaching Findings; and
7. **ADVISE** the applicant that, pursuant to California State Public Resources Code Section 21081.6, the City shall monitor or require evidence that mitigation conditions are implemented and maintained throughout the life of the project and the City may require any necessary fees to cover the cost of such monitoring.

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 525, 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 proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. Additionally, the project would provide 89 residential bicycle parking spaces (eight short-term and 81 long-term) and six commercial bicycle parking spaces (three short-term and three long-term).



Figure 1. Perspective rendering of the proposed project, facing northeast across Sherman Way.

The proposed project would be located along the eastern side of Genesta Avenue, between Cantlay Street and Sherman Way. As shown above in Figure 1, the project would feature ground-floor retail and a transparent, storefront frontage along Sherman Way which is consistent with the commercial uses along Balboa Boulevard to the east, a major commercial corridor. Existing improvements on the site include a vacant commercial restaurant (4,212 square feet) and surface parking lot which will be demolished as part of the project. The project site shares a common property line along the easterly border with a single-story commercial building in the C2 Zone, currently occupied by American Profession Ambulance.

In addition to the ground-floor commercial component, the proposed project would include various amenities for residents and retail customers. The project proposes 8,810 square feet of common open space, divided between the first level courtyard and rooftop terrace, and 5,550 square feet of private open space, for a total of 14,360 square feet of open space. The proposed project includes an indoor gym (610 square feet) and recreation room (1,000 square feet) on the first residential level, as well as 3,161 square feet of landscaping. Of the 111 dwelling units proposed, 47 units would be one-bedroom units (average size of 712 square feet) while 64 units would be two-bedroom units (average size of 1,091 square feet). The proposed project would total 115,391 square feet of floor area which equates to an overall Floor Area Ratio (FAR) of 2.34 to 1.

Background

The subject property is a flat, 49,333-foot rectangular lot with a 170-foot frontage along the north side of Sherman Way and Cantlay Street, and a 292-foot frontage along the east side of Genesta Avenue. The subject property is currently improved with an existing 4,212 square-foot commercial building and a large surface parking lot.

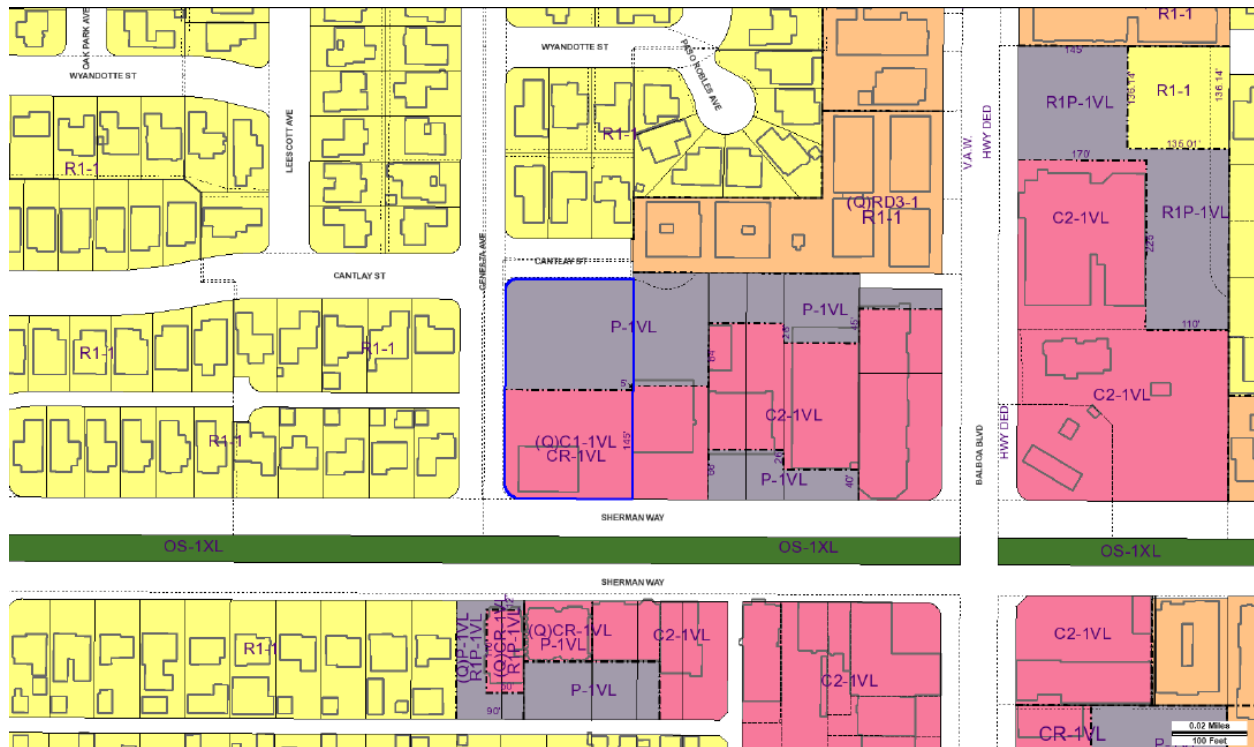


Figure 2. Current zoning at the project site, outlined in blue and obtained through ZIMAS.

As shown above in Figure 2, the project site is zoned P-1VL, CR-1VL, and (Q)C1-1VL and is located within the Reseda – West Van Nuys Community Plan which designates the subject property for Neighborhood Office Commercial land uses corresponding to the C1, C1.5, C2, C4, RAS3, RAS4, and P Zones. The project site is not located within the boundaries of or subject to any specific plan, community design overlay, or interim control ordinance. The subject property is not located within a Hazardous Waste Site, Methane Hazard Site, Alquist-Priolo Fault Zone, Preliminary Fault Rupture Study Area, Landslide Area, Very High Fire Hazard Severity Zone, Flood Zone, BOE Special Grading Area, Liquefaction Area, High Wind Velocity Area, Tsunami Inundation Zone, or Hillside Area. The subject property is subject to a Horizontal Surface Area Airport Hazard and Housing Element Inventory of Sites (ZI-2512). The nearest fault zone is the Northridge Fault which is approximately 8.87 kilometers away.

Measure JJJ

The requested Zone Change would result in increases to allowable residential floor area, density, and height and thus the project is subject to Measure JJJ (Section LAMC Section 11.5.11). As such, the Project would be required to comply with LAMC Section 11.5.11(i), as it relates to the local hiring of construction workers for building and construction work.

Projects which propose 10 or more residential dwelling units are required to comply with one of the on-site affordability provisions, or one of the alternative options, pursuant to LAMC Section 11.5.11. The Proposed Project is a Rental Project that results in a residential density increase

greater than 35% and thus is subject to affordability option 1-ii of LAMC Section 11.5.11(a)(1)(ii). The provision requires the Project to provide no less than five percent of the total units at rents affordable to Extremely Low Income households, and either six percent of the total units at rents affordable to Very Low Income households or 15 percent of the total units at rents affordable to Lower Income households, inclusive of any Replacement Units. As proposed, the Project complies with this provision as five percent of the units (six units) are proposed for Extremely Low Income households and 11 percent (13 units) are proposed for Very Low Income Households.

Additionally, pursuant to LAMC Section 11.5.11(e), “a Project that provides affordable housing consistent with this Section shall also be entitled to up to three incentives or concessions specified in California Government Code Section 65915(k) or the applicable Affordable Housing Incentive Program.” The Project proposes to set aside five percent (six units) of the total units for Extremely Low Income Households and 11 percent (13 units) for Very Low Income Households. Therefore, the applicant may request up to three incentives that are generally comparable to by-right and on-menu incentives offered within the Transit Oriented Communities (TOC) program and Density Bonus, the applicable Affordable Housing Incentive Programs. The applicant has requested two incentives to increase the number of stories and to permit reduced parking. These requested incentives are allowed by LAMC Section 11.5.11(e), which, in conjunction with a Zone Change that results in an increase in residential density or floor area, permits exceptions to zoning requirements that result in building design or construction efficiencies that facilitate affordable housing costs.

Surrounding Properties

Surrounding properties are developed with a mix of residential, commercial retail/restaurant, commercial office, and institutional uses within the P-1VL, (Q)P-1VL, (Q)CR-1VL, C2-1VL, R1-1, R1P-1VL, (Q)RD3-1, and OS-1XL Zones. The subject property shares a common property line to the east with a C2-zoned lot that is developed with a single-story commercial building currently occupied by American Profession Ambulance. Properties to the south, across Sherman Way, include a median zoned OS-1XL and properties zoned C2-1VL, P-1VL, (Q)P-1VL, R1P-1VL, and (Q)CR-1VL which are developed with commercial buildings containing office space, auto repair uses, and a pre-school. Properties to the west (along Genesta Avenue) and north (across Cantlay Street) are zoned R1-1 and are developed with single-family residential uses.

Street and Circulation

Sherman Way, adjoining the property to the south, is designated as a Boulevard II and is dedicated to a width of 91 feet along the project’s frontage and is improved with asphalt roadway, curb, gutter, concrete sidewalks, a median, and street trees.

Genesta Avenue, adjoining the property to the west, is designated as a Local Street – Standard and is dedicated to a width of 60 feet and is improved with asphalt roadway, curb, gutter, concrete sidewalks, and street trees.

Cantlay Street, adjoining the property to the north, is designated as a Local Street – Standard and is dedicated to a width of 54 feet and is improved with asphalt roadway, curb, gutter, and concrete sidewalks.

Relevant Cases

Subject Property:

No relevant cases were identified on the subject site.

Surrounding Properties:

Case No. APCSV-2009-1420-ZC-BL – On July 22, 2010, the South Valley Area Planning approved and recommended that the City Council adopt a Building Line Removal and a Zone Change from R1-1 and (T)(Q)RD1.5-1 to (T)(Q)RD1.5-1 for two lots located at 7355 North Balboa Boulevard and 7361 North Balboa Boulevard.

Case No. APCSV-2009-105-ZC-BL – An application for a Building Line Removal and Zone Change for the property located at 7355 North Balboa Boulevard was filed on January 12, 2009, and subsequently withdrawn on May 11, 2009. The subject property is part of the entitlement action described above.

Case No. ZA-2009-1646-CU-SPR – An application for a Lot Line Adjustment between two existing parcels in the RE15-1 Zone located at 1360 North Dawnridge Drive was filed on June 1, 2009, with no further action taken by the Zoning Administration.

Public Hearing and Outreach

Site meetings were held by the Applicant and attended by Councilwoman Padilla and their staff as well as several nearby residents on three separate dates: April 8, 2023, December 9, 2023, and January 6, 2024. The discussions that resulted are summarized in the “Issues and Considerations” section of the staff recommendation report.

A Public Hearing was held telephonically on November 14, 2023, at 1:00 p.m. The hearing was attended by approximately 13 people, including the applicant, the applicant’s representatives and members of the community. Additionally, one (1) letter from a member of the public was submitted via email which is included in Exhibit D. A summary of the public hearing is as follows:

After Planning staff introduced the project, the Applicant’s Representative, Eric Lieberman, gave a presentation to explain the proposed project. Mr. Lieberman stated that the project would consist of good quality rental housing to contribute to the housing shortage while remaining consistent with the underlying General Plan Land Use Designation of Neighborhood Office. Mr. Lieberman further explained that a Q Condition was established under an ordinance in 1973 requiring landscape plan review and that the project would be compliant with Measure JJJ through the affordable set asides and use of prevailing wages. The limitation of building stories comes from the LAMC because the project is not 100% residential; otherwise, the project would only need to adhere to height and not stories. The project requests a waiver of dedication and improvements along Cantlay Street because there is no vehicular access there. Revisions to the project design had been made in response to comments by Planning and the Urban Design Studio which included a softened rooftop sloping downward, additional balconies, and the inclusion of walk-up units on the ground floor.

Eleven callers participated during the public comment portion with the following names (announced or taken from Zoom): Lisa Paliulis, Pamela, Sophie, David, Val, JG, Robert G, Mustafa Alinejad, Adrienne Sausser, Alison, and SCPF. Every participating caller was in opposition to the proposed project citing concerns over the proposed density, height, reduced parking, potential noise and air quality issues, local businesses, flooding, crime and safety, access on Cantlay Street, traffic congestion, and privacy. In response, Eric Lieberman and Aram Egish, the project architect, responded that the proposed 160 parking spaces is all that can fit within the two subterranean levels and that the construction timeline is estimated to last from 18 months to 24 months at the latest. They explained that technical studies had been done for noise, air quality, and traffic so that mitigation measures are in place. They stated that the streets utilized in the

traffic and circulation plan consisted of Sherman Way and Genesta Avenue, and not Cantlay Street, as permitted by LADOT. The proposed retail component may not necessarily be one large tenant, but rather multiple smaller tenants in order to provide opportunities for small businesses. The proposed underground parking would be reviewed by the City's engineers to ensure that drainage and flooding concerns are addressed. The previous owner of the site had fewer affordable units, but the current proposed project includes many affordable units as well as design tailored to fit within the existing community. The Applicant team agreed to continue outreach and discussions with the surrounding community members while the final plans were being revised and updated.

Issues and Considerations

Throughout the project's outreach efforts, including site meetings and the public hearing, the following were primary issues raised by surrounding neighbors: lack of parking, effect on property values, building height, construction timelines, and roof deck privacy. In response, the Applicant's team clarified that no additional parking can be physically added, and that commercial parking may serve as guest parking during evening hours to alleviate parking impacts. Consultations with real estate professionals indicated that property values could increase given the pent-up demand for both for-sale and rental housing which could then increase property values in the neighborhood. The Applicant's team explained that there is approximately 92 feet of distance between the proposed building and the garages of the nearest single-family homes on Cantlay Street, providing a substantial buffer. While the project requests relief from the LAMC to provide four stories, the project's proposed height of 45 feet is permitted by the underlying zone. The start-to-finish construction timeline is approximately 18 to 20 months, during which there will be strict noise and dust mitigation measures enforced. Additionally, there are strict hours of operation and there will be a contact phone number for on-site management should any additional concerns arise. Lastly, regarding roof deck privacy, the proposed roof deck is insulated from the perimeter of the building and located at the center of the roof area to provide sufficient buffering.

In addition to issues raised by the community, further considerations were provided by the Urban Design Studio staff and Professional Volunteer Program architects. Comments were raised regarding the visibility and prominence of the pedestrian entry. In response, the Applicants team added a trellis covering over the exterior staircases to provide a prominent and intuitive focal point for the building's main entry, as shown below in Figure 3. A suggestion to include a second half-stop elevator was raised to make the secondary lobby more effective as a main entrance, but the Applicant's team ruled this out due to design complications, cost increases, and potential impacts on parking in the subterranean levels. Questions were raised regarding commercial parking, the proposed transformer, and specific details in the plans involving the roofing, open space programming, and trash enclosures. In response, the Applicant's team stated that the commercial parking will be accessible from the Genesta Avenue southerly driveway into the garage and that security gates will be open during retail business hours 8:00 a.m. to 9:00 p.m., after which the security gate will be closed and operational by residential tenants only. Regarding the transformer, there were two possible locations: one at the southeast corner of parking level B1 and the other at the northwest corner on parking level B1. A third alternative is available in an exterior location within the rear setback along Cantlay Street, but the interior options are preferable to keep the transformer hidden from public view. These locations are yet to be verified by LADWP. The Applicant's team stated that the commercial and residential trash pick-up is located at a convenient location just off the van loading area at the southeast corner of level B1. The service provider will have access to both residential and commercial trash areas which will be unobstructed by the designated loading area. Inconsistencies related to the project's roofing have been updated, and the plans have been revised to indicate that the open space areas will include benches, fountains, sculptures, and chess boards.



Figure 3. Rendering of the project from Genesta Avenue where the main residential entry is located.

Considerations related to climate-adapted design and sustainability were raised. While the project does not involve the removal of any protected trees, the Applicant team was encouraged to plant more shade trees and the maximum number of street trees. In response, the Applicant's team responded that shade trees were added to the parkway between the existing Palms, but whether this is feasible will be subject to approval by Urban Forestry. Among the 178 total parking spaces provided, the project will be providing 12 standard Electric Vehicle (EV) parking spaces and two Clean Air parking spaces. The project also proposes to include future solar panel areas on the rooftop and a variety of tree species, including shade-producing species and native species.

Conclusion

Based on the Public Hearing and information submitted to the record, Staff is recommending that the City Planning Commission find, based on the independent judgment of the decision-maker, after consideration of the whole of the administrative record, the project was adequately assessed in Mitigated Negative Declaration ("MND") ENV-2022-7855-MND. Staff also recommends that the City Planning Commission approve and recommend that the City Council approve the requested Zone Change Zone, including the requested developer incentives, and approve the Site Plan Review.

CONDITIONS FOR EFFECTUATING (T) TENTATIVE CLASSIFICATION REMOVAL

Pursuant to Section 12.32-G of the Municipal Code, the (T) Tentative Classification shall be removed by posting of guarantees through the B-permit process of the City Engineer to secure the following without expense to the City of Los Angeles, with copies of any approval or guarantees provided to the Department of City Planning for attachment to the subject planning case file.

Dedication(s) and Improvement(s). Prior to the issuance of any building permits, the following public improvements and dedications for streets and other rights of way adjoining the subject property shall be guaranteed to the satisfaction of the Bureau of Engineering, Department of Transportation, Fire Department (and other responsible City, regional and federal government agencies, as may be necessary):

Responsibilities/Guarantees.

1. As part of early consultation, plan review, and/or project permit review, the applicant/developer shall contact the responsible agencies to ensure that any necessary dedications and improvements are specifically acknowledged by the applicant/developer.
2. Bureau of Engineering. Prior to issuance of sign offs for final site plan approval and/or project permits by the Department of City Planning, the applicant/developer shall provide written verification to the Department of City Planning from the responsible agency acknowledging the agency's consultation with the applicant/developer. The required dedications and improvements may necessitate redesign of the project. Any changes to project design required by a public agency shall be documented in writing and submitted for review by the Department of City Planning.

a. Dedication Required:

Sherman Way (Boulevard II) – None.

Genesta Avenue (Local Street) – None.

Cantlay Street (Local Street) – None.

b. Improvements Required:

Sherman Way – Remove and replace any existing broken curb, gutter and sidewalk along the property frontage. Close all unused driveways with full height curb, gutter and concrete sidewalk. Upgrade all curb ramps to City Standards and to comply with ADA requirements.

Genesta Avenue – Construct a new 2-foot integral concrete curb and gutter and remove and replace all broken, cracked/damaged existing concrete sidewalk along the property frontage. Construct new ADA compliant driveways. Close all unused driveways with full-height curb, gutter and concrete sidewalk.

Cantlay Street – Remove and replace any existing broken curb, gutter and sidewalk along the property frontage. Close all unused driveways with full height curb, gutter and concrete sidewalk. Upgrade all curb ramps to City Standards and to comply with ADA requirements.

Notes: Broken curb and/or gutter includes segments within existing score lines that are depressed or upraised by more than ¼ inch from the surrounding concrete work or are separated from the main body of the concrete piece by a crack through the entire vertical segment and greater than 1/8 inch at the surface of the section.

Non-ADA compliant sidewalk shall include any sidewalk that has a cross slope that exceeds 2% and/or is depressed or upraised by more than ¼ inch from the surrounding concrete work or has full concrete depth cracks that have separations greater than 1/8 inch at the surface. The sidewalk also includes that portion of the pedestrian path of travel across a driveway.

All new sidewalk curb and gutter shall conform to the Bureau of Engineering Standard Plans S410-2, S440-4, S442-6 and S444-0.

Install tree wells with root barriers and plant street trees satisfactory to the City Engineer and the Urban Forestry Division of the Bureau of Street Services. The applicant should contact the Urban Forestry Division for further information (213) 847-3077 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Notes: Street lighting may be required satisfactory to the Bureau of Street Lighting (213) 847-1551 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Department of Transportation may have additional requirements for dedication and improvements.

Refer to the Department of Transportation regarding traffic signals, signs and equipment (818) 374-4699 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Regarding any conflicts with power pole matters, contact the Department of Water and Power at (213) 367-2715 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Refer to the Fire Department Hydrants and Access Unit regarding fire hydrants (818) 374-5005 or via <https://appointments.lacity.org/apptsys/Public/Account>.

- c. Provide proper drainage for street being improved and for the site being developed.
- d. Sewer mainlines exist along Genesta Avenue and Sherman Way. All Sewerage Facilities Charges and Bonded Sewer Fees are to be paid prior to obtaining a building permit.
- e. The Bureau of Sanitation may need to investigate the existing public sewers for sufficient capacity to facilitate the proposed development. Submit a request to the Public Counter of the Valley District Office of the Bureau of Engineering (818) 374-5090 or via <https://appointments.lacity.org/apptsys/Public/Account>.
- f. Submit shoring and lateral support plans to the Bureau of Engineering Valley District for review and approval prior to excavation to the public right-of-way (818) 374-5090 or via <https://appointments.lacity.org/apptsys/Public/Account>.
- g. Submit a parking area and driveway plan to the Valley District Office of the Bureau of Engineering and the Department of Transportation for review and approval.

Any questions regarding this report may be directed to Quyen Phan of the Permit Case Management Division, via quyen.phan@lacity.org.

3. Bureau of Street Lighting. Prior to the recordation of the final map or issuance of the Certificate of Occupancy (C of O), street lighting improvement plans shall be submitted for review and the owner shall provide a good faith effort via a ballot process for the formation or annexation of the property within the boundary of the development into a Street Lighting Maintenance Assessment District.

Improvement Condition: Construct new street lights: one (1) on Genesta Ave, and one (1) on Sherman Way. If street widening per BOE improvement conditions, relocate and upgrade street lights: two (2) on Cantlay St and one (1) on Genesta Ave.

Notes: The quantity of street lights identified may be modified slightly during the plan check process based on illumination calculations and equipment selection.

Conditions set: 1) in compliance with a Specific Plan, 2) by LADOT, or 3) by other legal instrument excluding the Bureau of Engineering conditions, requiring an improvement that will change the geometrics of the public roadway or driveway apron may require additional or the reconstruction of street lighting improvements as part of that condition.

4. Urban Forestry Division.

- a. Street Trees

- i. Project shall preserve all healthy mature street trees wherever possible. All feasible alternatives in project design should be considered and implemented to retain healthy mature street trees. A permit is required for the removal of any street tree and shall be replaced 2:1 as approved by the Board of Public Works and Urban Forestry Division.
- ii. When street dedications are required and to the extent possible, the project shall provide larger planting areas for existing street trees to allow for growth and planting of larger stature street trees. This includes and is not limited to parkway installation and/or enlargement of tree wells and parkways.
- iii. Plant street trees at all feasible planting locations within dedicated streets as directed and required by the Bureau of Street Services, Urban Forestry Division. All tree plantings shall be installed to current tree planting standards when the City has previously been paid for tree plantings. The sub divider or contractor shall notify the Urban Forestry Division at (213) 847-3077 upon completion of construction for tree planting direction and instructions.

Note: Removal of street trees requires approval from the Board of Public Works. All projects must have environmental (CEQA) documents that appropriately address any removal and replacement of street trees. Contact Urban Forestry Division at: (213) 847-3077 for tree removal permit information.

(Q) QUALIFIED CLASSIFICATIONS

Pursuant to Section 12.32-G of the Municipal Code, the following limitations are hereby imposed upon the use of the subject property, subject to the "Q" Qualified classification:

1. **Site Development.** Except as modified herein, the project shall be in substantial conformance with the plans and materials submitted by the applicant, stamped "Exhibit A," and attached to the subject case file. No change to the plans will be made without prior review by the Department of City Planning, Expedited Processing Section, and written approval by the Director of Planning. Each change shall be identified and justified in writing. Minor deviations may be allowed in order to comply with the provisions of the Los Angeles Municipal Code or the project conditions.
2. **Residential Density.** The project shall be limited to a maximum density of 111 dwelling units.
3. **On-site Restricted Affordable Units.** 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 a minimum of five percent of the total units at rents affordable to Extremely Low Income households and 11 percent of the total units at rents affordable to Very Low Income households, as defined by LAMC Section 11.5.11(a)(1)(ii) and 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 or includes for-sale units, the number of required reserved On-site Restricted Units may be adjusted, consistent with LAMC Section 11.5.11, to the satisfaction of LAHD. Enforcement of the terms of said covenant shall be the responsibility of LAHD. The applicant shall provide a copy of the recorded covenant to the Department of City Planning for inclusion in this file. On-site restricted affordable units shall be provided in accordance with LAMC Section 11.5.11, to the satisfaction of LAHD, and with any monitoring requirements established by LAHD.
4. **Developer Incentives.** The project shall be permitted the following:
 - a. Reduction in the amount of required residential parking to allow 160 parking spaces in lieu of the 198 residential parking spaces otherwise required; and
 - b. Relief from General Plan Footnote 7 to allow for a project to rise to four (4) stories in lieu of the three (3) stories otherwise permitted.
5. **Labor Requirement.** Pursuant to Los Angeles Municipal Code Section 11.5.11, certified by City Council on December 13, 2017 and codified as Section 5.522 of the Administrative Code, the applicant shall confer with Department of Public Works, Bureau of Contract Administration, Office of Contract Compliance, and shall provide the following to the Department of City Planning:
 - a. A signed Preconstruction Checklist Agreement between the Applicant and the Bureau of Contract Administration (maintained in the case file), prior to clearing any Building Permit, which covers the following:
 - i. **Licenses.** All building and construction work on the project will be performed at all tiers by contractors that are licensed by the State of California and the City of Los Angeles. The project will employ only construction workers that possess all licenses and certifications required by the State of California and the City of Los Angeles.

- ii. **Local Hire.** At least 30% of all respective workforces' construction workers' hours of Project Work will be performed by permanent residents of the City of Los Angeles. Of these, at least 10% of all their respective workforces' construction workers' hours of Project Work shall be performed by Transitional Workers whose primary place of residence is within a 5-mile radius of the covered project. If such minimums are not met, evidence of a good faith effort to solicit such local workers shall be evidenced.
 - iii. **Wages.** The project will pay construction workers performing Project Work hourly wage rates for those classifications in compliance with the applicable prevailing wage rate determination established pursuant to the California Labor Code.
 - iv. **Training.** At least 60% of construction workforces employed on the project will be:
 - (1) Workers who graduated from a Joint Labor Management apprenticeship training program approved by the State of California.
 - (2) Alternatively, workers employed that have minimum hours of on-the-job experience in the applicable craft which would be required to graduate from such a state-approved apprenticeship training program.
 - (3) Workers who are registered apprentices in an apprenticeship training program approved by the State of California or an out-of-state, federally approved apprenticeship program.
 - v. **Bond.** A Bond may be required to ensure compliance.
- b. After the project has completed construction, and prior to any Certificate of Occupancy, a signed report from the Bureau of Contract Administration that indicates compliance with the above licenses, local hire, wages and training requirements shall be added to the case file.

CONDITIONS OF APPROVAL

Pursuant to Section 16.05 of the Los Angeles Municipal Code, the following conditions are hereby imposed upon the use of the subject property:

A. Development Conditions

1. **Site Development.** The use and development of the subject property shall be in substantial conformance with the site plan labeled Exhibit "A" and attached to the subject case file. Prior to the issuance of building permits, detailed development plans including a site plan illustrating elevations, facades, and architectural treatment, and a landscape/irrigation plan shall be submitted for review and approval by the Department of City Planning. The plans shall comply with provisions of the Municipal Code, the subject conditions, and the intent of the subject permit authorization.
2. **Parking.**
 - a. **Automobile Parking.** Automobile parking shall be provided consistent with LAMC Section 12.21-A,4, except as otherwise permitted herein.
 - b. **Unbundling.** Required parking may be sold or rented separately from the units, with the exception of all Restricted Affordable Units which shall include any required parking in the base rent or sales price, as verified by LAHD.
 - c. **Bicycle Parking.** Bicycle parking shall be provided consistent with LAMC Section 12.21-A,16.
3. **Landscaping.** All open areas not used for buildings, driveways, parking areas, recreational facilities or walks shall be attractively landscaped, including an automatic irrigation system, and maintained in accordance with a landscape plan prepared by a licensed landscape architect or licensed architect, and submitted for approval to the Department of City Planning.
4. **Mechanical Equipment.** All mechanical equipment on the roof shall be screened from view. The transformer, if located in the front yard, shall be screened with landscaping.
5. **Maintenance.** The subject property (including all trash storage areas, associated parking facilities, sidewalks, yard areas, parkways, and exterior walls along the property lines) shall be maintained in an attractive condition and shall be kept free of trash and debris.
6. **Lighting.** Outdoor lighting shall be designed and installed with shielding, such that the light source cannot be seen from adjacent residential properties or the public right-of-way, nor from above.
7. **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.
8. **Sustainability.**
 - a. 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 Article 9, Chapter IX of the LAMC.

- b. The project shall comply with Section 99.05.211.1 of the LAMC regarding solar energy infrastructure.

B. Mitigation Measures

Noise

9. **PDF-NOI-1.** The construction contractor shall not use pile drivers on the project site.
10. **MM NOI-1.**
 - c. The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices capable of a 15 dBA reduction.
 - d. Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
 - e. A temporary noise control barrier/sound curtain shall be installed on the property line of the construction site abutting/facing adjacent multi-family residential uses located to the northeast and the closest residential uses located to the north, northwest, and west of the project site. The noise control barrier shall be engineered to block the line-of-sight from the residential uses to the construction activity and reduce construction-related noises levels at the adjacent residential structures with a goal of a reduction of 15 dBA. The supporting structure shall be engineered and erected according to applicable codes. The temporary barrier shall remain in place until all windows have been installed and all activities on the project site are complete.
11. **MM NOI-2.** The construction contractor shall not use large excavators, bulldozers or caisson drills within 80 feet of the façade of the residential uses located adjacent to the northeastern portion of the site and the residential uses located closest to the northern and western boundaries of the project site.
12. **MM NOI-3.** The construction contractor shall not use large excavators, bulldozers, or caisson drills within 15 feet of the facades of the commercial buildings located to the east of the project boundary.

Geotechnical Engineering Measures

13. **MM GEO-1.** Final design and construction plans for the Project shall incorporate geotechnical engineering recommendations based on site specific soil investigations, and shall consider collapsible soils, protection from corrosive soils, and other applicable soil conditions. More specifically, final design and plans shall incorporate geotechnical engineering recommendations from the Geotechnical Investigation Report prepared by Geoboden, Inc. on June 12, 2023.

C. Administrative Conditions

14. **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.

15. **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.
16. **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.
17. **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.
18. **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.
19. **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.
20. **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.
21. **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.
22. **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.

23. **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.
24. **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.
25. **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.

26. **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 (b).
- e. If the City determines it necessary to protect the City's interests, 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, commission, committees, employees and volunteers.

"Action" shall be defined to include suits, proceedings (including those held under alternative dispute resolution procedures), claims or lawsuits. Actions includes 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

General Plan/Charter Findings

1. General Plan.

- a. **General Plan Land Use Designation.** The subject property is located within the Reseda – West Van Nuys Community Plan which was updated by the City Council on November 17, 1999.

The plan map designates the subject property as Neighborhood Office Commercial land use with corresponding zones of C1, C1.5, C2, C4, RAS3, RAS4, and P. The subject property is currently zoned P-1VL, CR-1VL, and (Q)C1-1VL with a request to change the zoning of the entire site to (T)(Q)RAS4-1VL. The proposed zoning of the site is thus consistent with the range of zones within the Neighborhood Office Commercial land use designation.

Therefore, the project is consistent with the General Plan as reflected in the adopted Community Plan.

b. Land Use Element.

Reseda – West Van Nuys Community Plan. The Community Plan text includes the following relevant land use goals, objectives and policies:

Goal 1: A safe, secure, and high quality residential environment for all economic, age, and ethnic segments of the community.

Objective 1-1: To provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the Plan area to the year 2010.

Policy 1-1.1: Designate specific lands to provide for adequate multi-family residential development.

Policy 1-1.4: Protect the quality of the residential environment through attention to the appearance of communities, including attention to building and site design.

Objective 1-3: To promote and ensure the provision of adequate housing for all persons regardless of income, age, or ethnic background.

Policy 1-3.1: Promote greater individual choice in type, quality, price, and location of housing

Policy 1-3.3: Ensure that new housing opportunities minimize displacement of the residents.

The requested Zone Change to allow for a new mixed-use development containing 111 dwelling units, including six units set aside for Extremely Low Income households and 13 units set aside for Very Low Income households, provides for a diverse range of housing opportunities on an otherwise vacant site that is currently developed with a

commercial use and surface parking lot. While the proposed project complies with the requirements of Measure JJJ, the project provides more than the minimum amount of affordable housing. As such, there are no existing residents who have been displaced and a greater variety and diversity of housing choices that will result. The proposed Zone Change would consolidate the zoning of the subject property into a zoning classification that is permitted under the site's General Plan Land Use Designation, indicating that the project site was designated to provide for adequate multi-family residential development. The proposed project includes ground floor retail and direct walk-up units, along with extensive landscaping, to provide for a welcoming and safe pedestrian environment. The project would include secure, gated parking that is located wholly underground. These components all contribute to the high quality and well-designed proposed project which also contributes to the City's housing stock.

Therefore, the project is consistent with the Reseda – West Van Nuys Community Plan in that it implements the abovementioned goals, objectives and policies of the Plan.

- c. 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 liveable city.

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

Objective 3.2: Provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled, and air pollution.

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.

Goal 4A: "An equitable distribution of housing opportunities by type and cost accessible to all residents of the City."

Objective 4.1: "Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various

types within each City sub-region to meet the projected housing needs by income level of the future population...”

The proposed Zone Change to reclassify the subject property from the P-1VL, CR-1VL, and (Q)C1-1VL Zones to the (T)(Q)RAS4-1VL Zone is consistent with the General Plan Framework as the project is a mixed-use development containing a mix of market-rate and affordable units which is situated along a major commercial corridor (Balboa Boulevard). While the project site does not yet have a commercial tenant secured, the 4,500 square feet of ground-floor retail space is envisioned to allow for a number of diverse commercial tenants to suit the needs of the community and provide leasing opportunities for smaller businesses.

The nature of the project being mixed-use (three levels of residential uses above ground-floor commercial) along with the proximity of the project to commercial amenities and employment centers contributes to the policies of the Framework Element to provide for a spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, vehicle miles traveled, and air pollution. Although the project is located near various amenities, the project also provides 160 residential parking spaces and 18 retail parking spaces (which will be unbundled) located entirely underground in two levels of secured subterranean parking. This provision allows for the overall project to still provide much needed housing units, including affordable units, within a smaller building envelope. The project will accommodate parking while also rising to an overall height of 48 feet and four stories. The reduced building height as well as the project’s thoughtful design incorporate sensitivity to surrounding residential uses and the existing character of the neighborhood.

The proposed Zone Change is within the allowable zones in the Neighborhood Office Commercial land use designation. The proposed project does not displace any existing residents or active commercial tenants, instead replacing a vacant commercial property and surface parking lot.

Therefore, the proposed Zone Change is consistent with the Distribution of Land Use goals, objectives and policies of the General Plan Framework Element.

- d. The **Housing Element** of the General Plan (2021-2029) will be implemented by the recommended action herein. The Housing Element is the City’s blueprint for meeting housing and growth challenges. It identifies the City’s housing conditions and needs, reiterates goals, objectives, and policies that are the foundation of the City’s housing and growth strategy, and provides the array of programs the City has committed to implement to create sustainable, mixed-income neighborhoods across the City. 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.

Policy 1.1.6: Allocate citywide housing targets across Community Plan areas in a way that seeks to address patterns of racial and economic segregation, promote jobs/ housing balance, provide ample housing opportunities, and affirmatively further fair housing.

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

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.

Goal 2: A City that preserves and enhances the quality of housing and provides greater housing stability for households of all income levels.

Objective 2.3: Preserve, conserve and improve the quality of housing.

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

Objective 3.1: Use design to create a sense of place, promote health, foster community belonging, and promote racially and socially inclusive neighborhoods.

Policy 3.1.5: Develop and implement environmentally sustainable urban design standards and pedestrian-centered improvements in development of a project and within the public and private realm such as shade trees, parkways and comfortable sidewalks.

Policy 3.1.6: Establish plans and development standards that promote positive health outcomes for the most vulnerable communities and populations.

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 3.2.1: Promote the integration of housing with other compatible land uses at both the building and neighborhood level.

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.

- e. The **Mobility Element** of the General Plan, also known as Mobility Plan 2035, provides policies with the ultimate goal of developing a balanced transportation network for all users. The project supports the following policies of the Mobility Element:

Policy 3.3: “Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.”

Policy 5.2: “Support ways to reduce vehicle miles traveled (VMT) per capita.”

Policy 5.4: “Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.”

The project proposes a new mixed-use multi-family development, consisting of 111 dwelling units with six (6) units set aside for Extremely Low Income Households and 13 units set aside for Very Low Income Households, that will provide much-needed housing, including affordable housing. Accordingly, the project fulfills the Community Plan, Framework Element, and Housing Element goals and objectives of providing quality housing for all persons in the community, including those at all income levels. The project utilizes development incentives granted by Measure JJJ to provide a higher number of residential units than would otherwise be permitted, thereby facilitating the creation of a higher number of affordable units and addressing the need for affordable housing in the City. The proposed project has been carefully designed and conditioned in order to provide a pedestrian-friendly experience, including common open space areas and extensive landscaping which includes shade-producing trees and street trees, where feasible. The project proposes a number of affordable housing units that far exceeds the minimum required amount to qualify for the requested Developer Incentives. The project also includes a balanced mix of one- and two-bedroom units, as well as 160 residential parking spaces within a secured underground garage, to accommodate a diversity of residents with regard to housing type, cost, and size.

The proposed project is consistent with the policies set forth by the Mobility Element of the General Plan. Although the project has requested a waiver of dedications and improvements along Cantlay Street to provide a future cul-de-sac, Cantlay Street has been conditioned to require street and sidewalk improvements, including repairs and ADA compliance. The project’s circulation plan has been reviewed by LADOT which, along with the neighboring community, determined that the use of Cantlay Street for vehicular access is not optimal. The project will be fulfilling all dedication and improvement requirements along Genesta Avenue and Sherman Way. The project is utilizing a Measure JJJ Zone Change to consolidate and reclassify the subject property to (T)(Q)RAS4-1VL which is allowable under the General Plan land use designation for Neighborhood Office Commercial. The General Plan designation of the site indicates that this type of mixed-use residential and commercial use was contemplated in the Community Plan. The designation of the subject property aligns with the proximity of various amenities and commercial uses along Balboa Boulevard, a major commercial corridor less than one block to the east. Thus, by locating higher-density development close to commercial services and jobs, the project will contribute towards the City’s overall housing goals while creating sustainable neighborhoods and reducing vehicle trips and VMT.

In addition, the project has been conditioned to include automobile parking spaces both ready for immediate use by electric vehicles (e.g., with electric vehicle chargers installed) and capable of supporting electric vehicles in the future. The project has also been conditioned to provide solar infrastructure. Together, these conditions further support applicable policies in the Health and Wellness Element, Air Quality Element, and Mobility

Element of the General Plan by reducing the level of pollution/greenhouse gas emissions, ensuring new development is compatible with alternative fuel vehicles, and encouraging the adoption of low emission fuel sources and supporting infrastructure. These conditions also support good planning practice by promoting overall sustainability and providing additional benefits and conveniences for residents, workers, and visitors. Therefore, the proposed Zone Change is consistent with Housing Element and Mobility Plan 2035 goals, objectives and policies of the General Plan.

The project contributes to and furthers the relevant goals, objectives, and policies of the plans that govern land use and development in the City. In addition, the project does not substantially conflict with any applicable plan or other regulation. Therefore, the project substantially conforms with the purpose, intent, and provisions of the General Plan, the applicable Community Plan, and the applicable specific plan

- f. The **Sewerage Facilities Element** of the General Plan will not be affected by the recommended action. While the sewer system might be able to accommodate the total flows for the proposed project, further detailed gauging and evaluation may be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Treatment Plant, which has sufficient capacity for the project.

Zone Change Findings

2. Pursuant to LAMC Section 12.32, the zone change and classifications are necessary because:

- a. **Public Necessity:** Approval of the Zone Change to the (T)(Q)RAS4-1VL Zone is necessary in order for the project to be considered under one (1) zone rather than multiple zones, including a parcel zoned P-1VL which renders the site undevelopable aside from parking. The mixed-use development is consistent with the type of development encouraged by the General Plan Framework Element and the Reseda – West Van Nuys Community Plan, with regard to Neighborhood Office Commercial development, as outlined above.
- b. **Convenience:** The project will consolidate the zoning and redevelop a commercially zoned property that is within one block of a major commercial corridor (Balboa Boulevard) which includes 111 residential dwelling units and 4,500 square feet of ground-floor commercial uses which will provide new housing, dining and retail opportunities within walking distance to surrounding residences and existing amenities.
- c. **General Welfare:** Granting the Zone Change to the (T)(Q)RAS4-1VL Zone allows for the development of a mixed-use project with 111 residential dwelling units and 4,500 square feet of ground-floor retail commercial uses which will support the Reseda – West Van Nuys community by providing additional housing, dining and retail opportunities, as well as enhancing the urban environment through context-sensitive design and scale. The project will result in improvements to the public right-of-way and a redeveloped property featuring pedestrian friendly elements. Given the project's proximity to existing commercial services and amenities, the project will provide new housing opportunities and amenities at both the local and community scale.
- d. **Good Zoning Practices:** Approval of the Zone Change to the (T)(Q)RAS4-1VL Zone with 111 residential dwelling units and 4,500 square feet of ground-floor retail commercial area

is consistent with the type of development encouraged by the General Plan Framework Element and the Reseda – West Van Nuys Community Plan, with regard to Neighborhood Office Commercial development, as outlined above.

- e. “T” Tentative and “Q” Classification and “D” Development Limitation Findings: Per Section 12.32-G, 1, 2 and 4 of the Municipal Code, the current action, as recommended, has been made contingent upon compliance with new “T” and “Q” conditions of approval and “D” development limitations imposed herein for the proposed project. Such limitations are necessary to ensure that the scale, design and scope of future development on the site are limited to protect the orderly arrangement of the property concerned into lots and/or that provision be made for adequate streets, drainage facilities, grading, sewers, utilities, park and recreational facilities; and/or that provision be made for payments of fees in lieu of dedications and/or that provision be made for other dedications; and/or that provision be made for improvements the best interests of and to assure a development more compatible with surrounding properties, to secure an appropriate development in harmony with the General Plan as discussed in Findings Section 1, and to prevent potential adverse environmental effect of adding incompatible uses to the established neighborhood.

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 project is located in an area that is designated for Neighborhood Office Commercial land uses and, with the approval of the proposed Zone Change to (T)(Q)RAS4-1VL, will be zoned accordingly for commercial and residential development. As discussed in Finding No. 1, the recommended Zone Change for the project site would be consistent with the proposed land use designation as well as various facets of the General Plan. Pursuant to the proposed (T)(Q)RAS4-1VL zone, the site would be limited to a density of one unit per 400 square feet of lot area (124 units) and an FAR of 3:1 (148,000 square feet of floor area). The project is consistent with the density and the FAR of the zone as it is proposing only 111 dwelling units and 115,391 square feet of floor area for an FAR of 2.34:1. As proposed, the Project would provide six (6) units set aside for Extremely Low Income Households and 13 units set aside for Very Low Income Households and would be consistent with the affordable housing requirements pursuant to LAMC Section 11.5.11. In conjunction with the requested Zone Change, the Applicant has requested Developer Incentives to increase the allowed number of stories and reduce required residential parking. As discussed in Finding No. 1, the Project would meet the goals, objectives, and policies of the General Plan and the Reseda – West Van Nuys Community Plan area. The Project Site is not located within a specific plan area. As such, the project is in substantial conformance with the purposes, intent, and provisions of the General Plan and Community Plan.

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 subject property is a flat, 49,333-foot rectangular lot with a 170-foot frontage along the north side of Sherman Way and Cantlay Street, and a 292-foot frontage along the east side of Genesta Avenue. The subject property is currently improved with an existing 4,212 square-foot commercial building and a large surface parking lot. The subject property shares a common property line to the east with a C2-zoned lot that is developed with a single-story commercial building currently occupied by American Profession Ambulance. Properties to the

south, across Sherman Way, include a median zoned OS-1XL and properties zoned C2-1VL, P-1VL, (Q)P-1VL, R1P-1VL, and (Q)CR-1VL which are developed with commercial buildings containing office space, auto repair uses, and a pre-school. Properties to the west (along Genesta Avenue) and north (across Cantlay Street) are zoned R1-1 and are developed with single-family residential uses.

The site is within the Reseda – West Van Nuys Community Plan area, is designated for Neighborhood Office Commercial land uses and is currently zoned P-1VL, CR-1VL, and (Q)C1-1VL with a request to change the zoning of the entire site to (T)(Q)RAS4-1VL.

The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. Additionally, the project would provide 89 residential bicycle parking spaces (eight short-term and 81 long-term) and six commercial bicycle parking spaces (three short-term and three long-term).

Height, Bulk, and Setbacks

Pursuant to the proposed (T)(Q)RAS4-1VL zone, the site would be limited to a density of one unit per 400 square feet of lot area (124 units) and an FAR of 3:1 (148,000 square feet of floor area). The project is proposing 111 dwelling units and 115,391 square feet of floor area for an FAR of 2.34:1 and thus complies with the density and floor area limitations of the requested zone.

The proposed project is maintaining the required setbacks of the proposed (T)(Q)RAS4-1VL zone without any requests for deviations. The main residential entrance to the property is located on Genesta Avenue while the main commercial entrance is located along Sherman Way. The project will observe a five-foot front yard setback along Sherman Way, a five-foot and five-inch side yard setback along Genesta Avenue, a five-foot and one-inch side yard setback along the neighboring property, and a 15-foot setback along Cantlay Street. The project provides setbacks that are compliant with the requirements of the LAMC. Thus, the yards comply with the setback requirements of the zone.

The proposed building is 48 feet in height and four stories above-ground. The applicant has requested a Developer's Incentive, allowed through LAMC 11.5.11, to allow for a deviation from the limit of three stories per General Plan Footnote 7 to four stories. However, the proposed height and FAR are well within the allowable parameters of the underlying zone. The nearest single-family zoned lots are approximately 92 feet from the proposed site, across Cantlay Street from the subject site. The requested incentive will allow for a maximum of four stories in lieu of three stories otherwise permitted. The entirety of the project's parking is located within two subterranean levels which allows for a reduced overall height of the building. Surrounding uses include a mix of commercial, multi-family, and single-family development ranging in height from one to two stories in height. Given the project's compliance with LAMC building height requirements, proposed setbacks ranging from five (5) to 15 feet, and the distance separated from the single-family homes by 92-foot public right of way (Cantlay Street), the proposed height is compatible with the existing and future development on adjacent and neighboring properties.

The apparent bulk of the structure is minimized by architectural details including setbacks, landscaping and planters, a prominent building entrance, breaks in the building plane, balconies, fenestration, a varied roof line, and differing, high-quality building materials along

each facade. The proposed project features two large central courtyards (totaling 3,400 square feet), accessible off of Genesta Avenue, and open to the sky to significantly break up the massing along the western façade. The ground floor features high transparency and a storefront frontage along Sherman Way. The project incorporates ground-floor walk-up units along Cantlay Street to contribute to a lower neighborhood-scale pedestrian environment. Each façade incorporates several balconies and plane breaks to ensure diversity in architectural design and reduction of the apparent bulk and mass of the proposed building. The height, bulk, and setbacks of project are compatible with the immediate surrounding area and with the requested (T)(Q)RAS4-1VL Zone in consideration of the allowed Developer's Incentives pursuant to LAMC Section 11.5.1. Therefore, the project will be compatible with the existing and future developments in the neighborhood.

Off-Street Parking Facilities and Loading Areas

The Project proposes to provide 160 residential automobile parking spaces and 18 retail parking spaces, which would be located wholly within an underground parking garage consisting of two subterranean levels. The applicant has requested a Developer's Incentive, allowed through LAMC 11.5.11, to allow for a reduction of required residential parking from 198 parking spaces to 160 spaces. Considering that the commercial parking will be unbundled and that approximately 1.6 parking spaces per unit would result, the project will be providing adequate off-street parking. The proposed parking facilities and loading areas would all be located underground and away from view of the public right-of-way.

Lighting

Lighting is required to be provided per LAMC requirements. The project proposes security lighting to illuminate building, 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.

Landscaping

The project proposes 8,810 square feet of common open space, divided between the first level courtyard and rooftop terrace, and 5,550 square feet of private open space, for a total of 14,360 square feet of open space. The proposed project includes an indoor gym (610 square feet) and recreation room (1,000 square feet) on the first residential level, as well as 3,161 square feet of landscaping. 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 a trash and recycling area within level B-1 of the underground parking areas. The trash collection area will be located alongside the proposed loading area to ensure that residential or commercial parking spaces do not block access for trash and recycling services. The project includes centralized trash chutes for residents on each floor of the building along the eastern wing. 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 (9,216 square feet of roof area provided) and 12 standard Electric Vehicle (EV) parking spaces and two (2) Clean Air parking spaces. 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 111 residential units which will include 47 one-bedroom units (average size of 712 square feet) and 64 units two-bedroom units (average size of 1,091 square feet). Pursuant to LAMC Section 12.21 G, the Project would be required to provide 12,700 square feet of usable open space. The project proposes to provide a total of 14,360 square feet of usable open space, inclusive of 5,550 square feet of private open space (balconies) and 8,810 square feet of shared space (courtyard, common space, and rooftop terrace). The project includes direct walk-up units from the ground floor along Cantlay Street and extensive landscaping along each façade of the building. In addition to the ground-floor commercial retail amenity, the project proposes an indoor gym and recreation rooms along with 3,400 square feet of courtyard area on the first floor which is open to the sky and 5,410 square feet of open space on the rooftop (situated in the center and away from nearby properties), for a total of 8,810 square feet of common open space. Each of the proposed setbacks, ranging from five (5) to 15 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, including benches, fountains, sculptures, and chess boards. As proposed, the project would provide recreational and service amenities, including landscaped courtyards, patios, seating areas, an indoor gym, indoor recreational areas, and ground-floor commercial amenities which would improve habitability for its residents and minimize impacts on neighboring properties.

Environmental Findings

6. **Mitigated Negative Declaration.** Pursuant to CEQA Guidelines Section 15074(b), after consideration of the whole of the administrative record, including the Mitigated Negative Declaration, No. ENV-2022-7855-MND (“Mitigated Negative Declaration”), and all comments received, with the imposition of mitigation measures, there is no substantial evidence that the project will have a significant effect on the environment.
7. **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 Flood Zone X, areas of minimal flood hazard.

EXHIBIT A

Maps

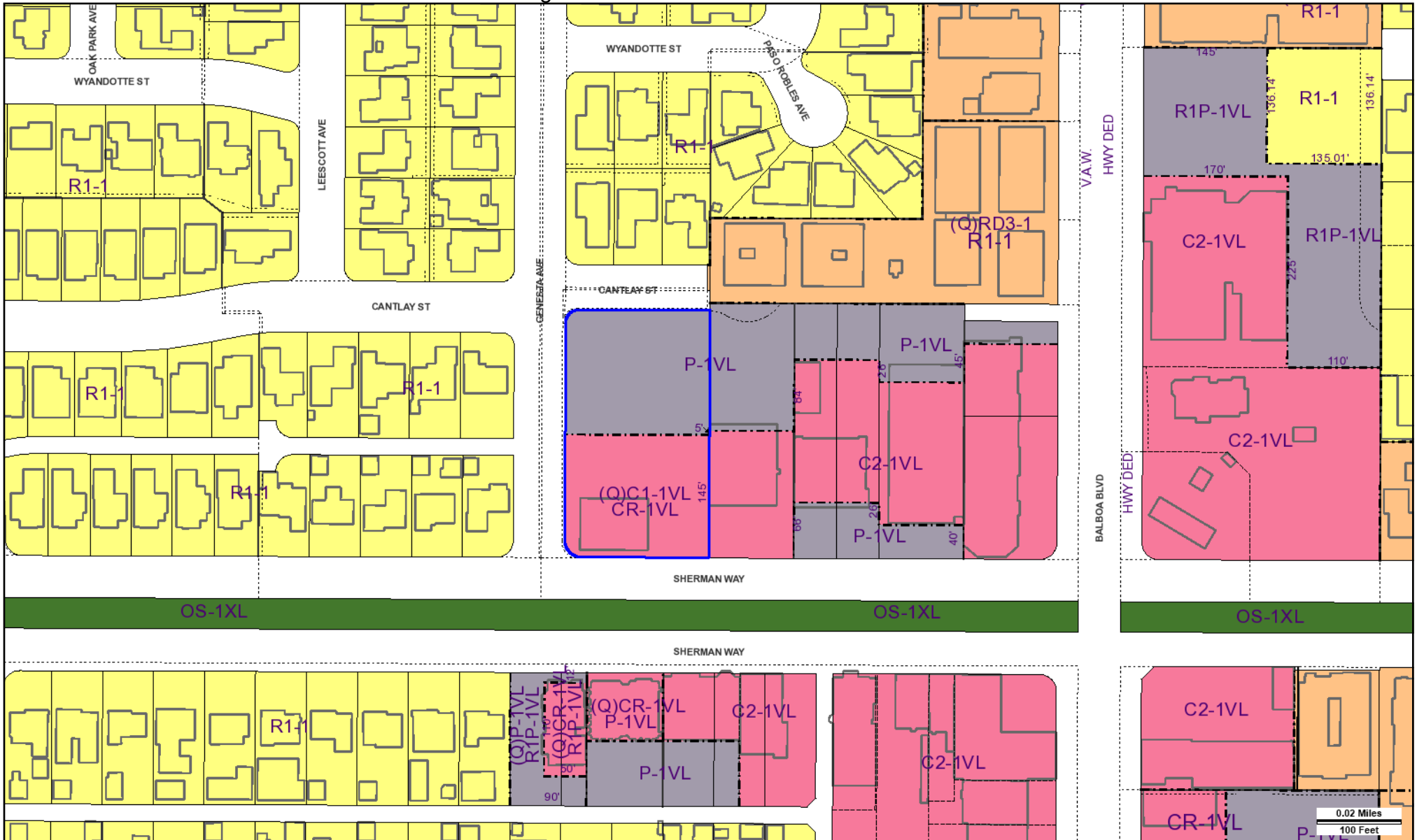
ZIMAS, Vicinity Map, Radius Map

ZIMAS INTRANET

Generalized Zoning

01/04/2024

City of Los Angeles
Department of City Planning



Address: 16949 W SHERMAN WAY

Tract: TR 28401

Zoning: (Q)C1-1VL, P-1VL

APN: 2227003017

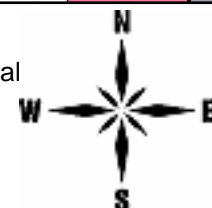
Block: None

General Plan: Neighborhood Office Commercial

PIN #: 183B133 33

Lot: LT 1

Arb: None



0.02 Miles
100 Feet

Vicinity Map

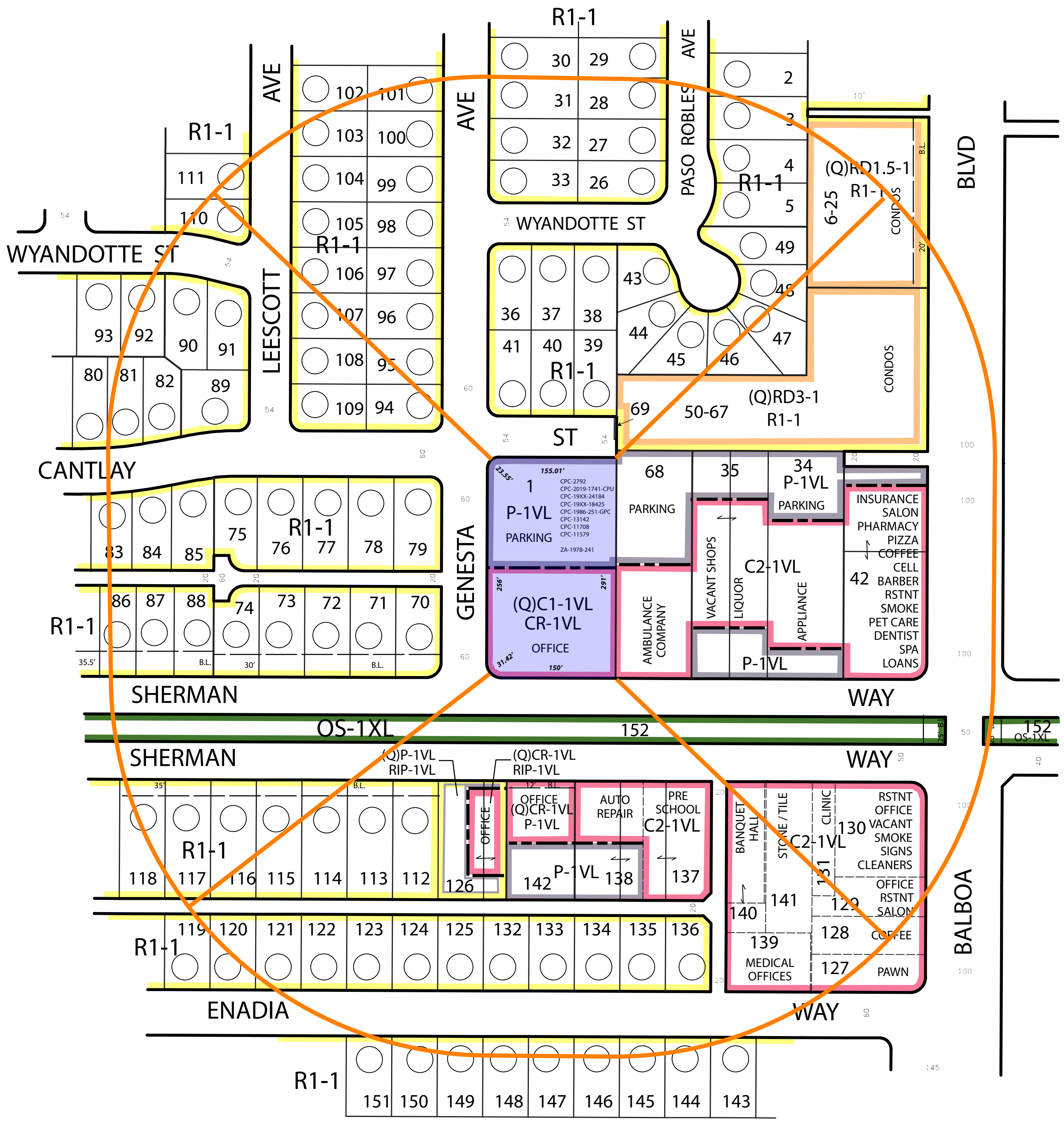


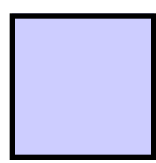
Address: 16949-16955 W Sherman Way
APN: 2227-003-017

QES INCORPORATED

14549 ARCHWOOD STREET, SUITE 301 • VAN NUYS, CA • 91405

(818)997-8033



 REQUEST: (Q)C1-1VL, CR-1VL & P-1VL TO (T)(Q)RAS4-1VL

VESTING ZONE CHANGE - SITE PLAN REVIEW

QMS Quality Mapping Service
 14549 Archwood St. Suite 301
 Van Nuys, California 91405
 Phone (818) 997-7949 - Fax (818) 997-0351
 qmapping@qesqms.com

THOMAS BROTHERS
 Page: 531 Grid: C,D-4,5

LEGAL
 LOT: 1
 TRACT: 28401
 M.B. 741-49/50

CONTACT: QES INC

ASSESSOR PARCEL NUMBER: 2227-003-017
SITE ADDRESS: 16955 SHERMAN WAY

CD: 6
CT: 1319.00
PA: RESEDA WINNETKA
USES: FIELD/RECORD

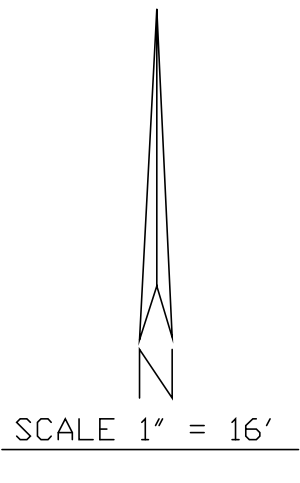
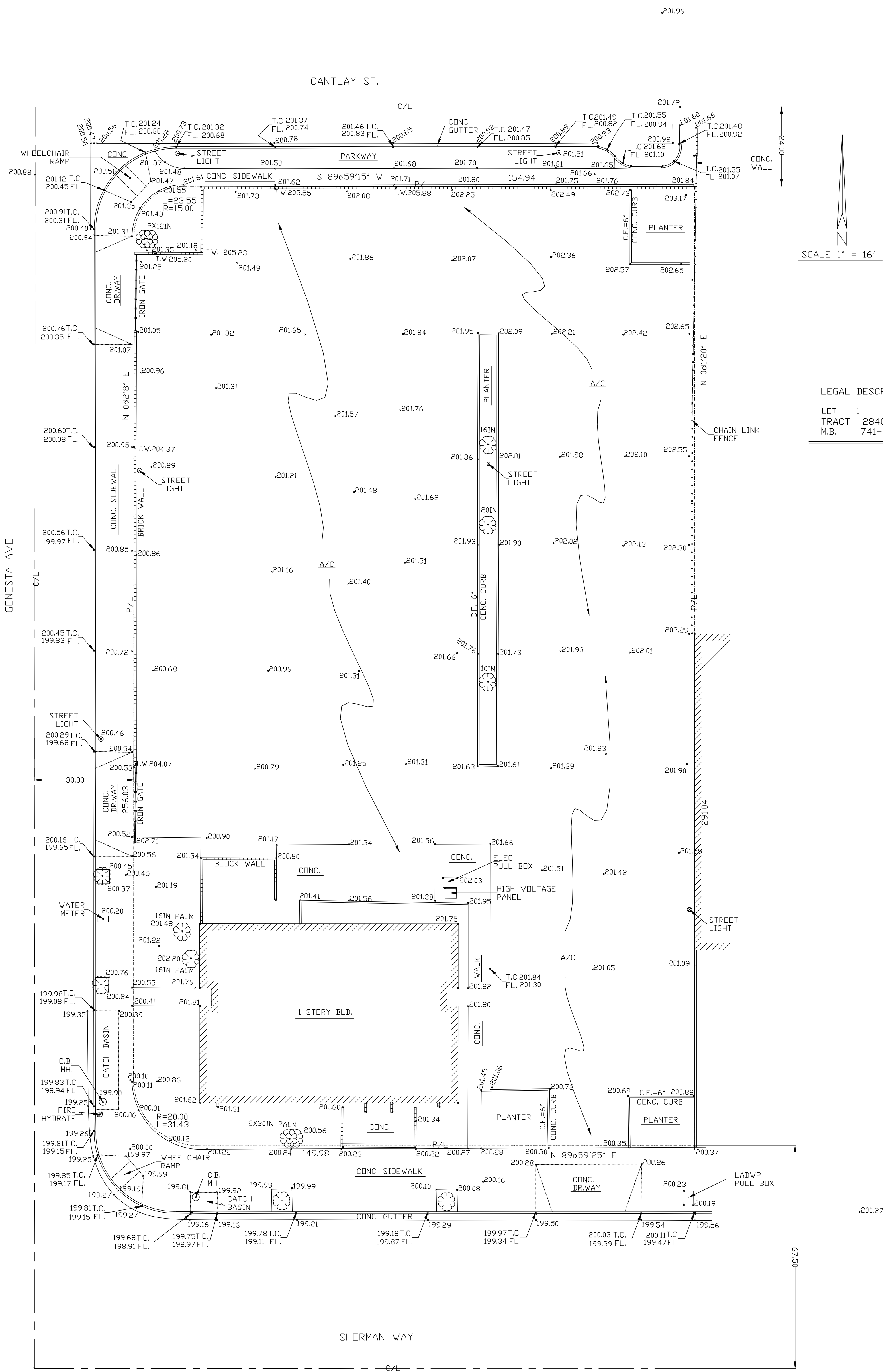
CASE NO:
SCALE: 1" = 100'
D.M.: 183B133, 186B133

PHONE: 818-997-8033


DATE: 09-15-2022
 Update: _____

 NET AC: 1.133 +/-
QMS: 22-193

EXHIBIT B
Architectural Plans

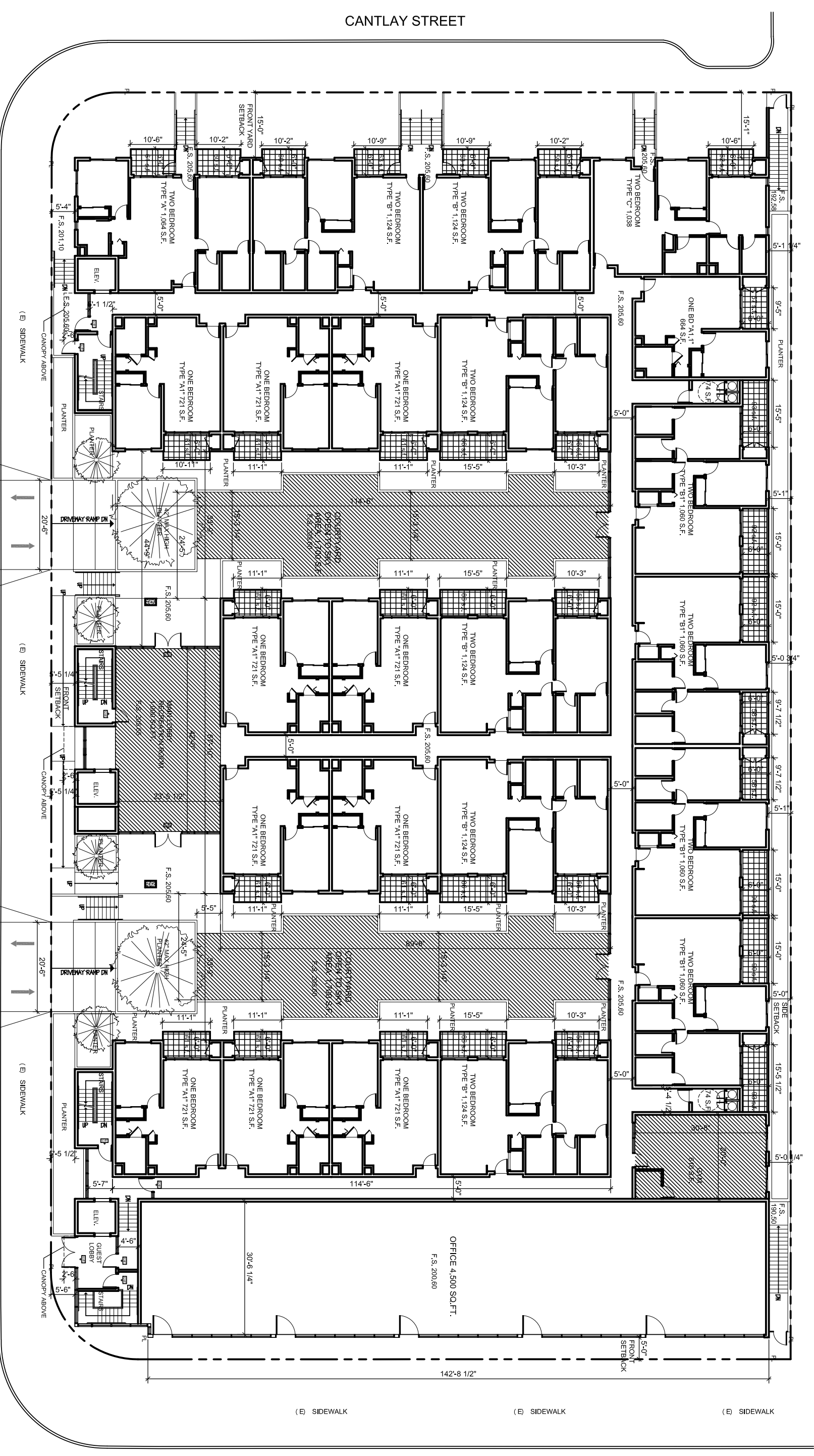


LEGAL DESCRIPTION
 LOT 1
 TRACT 28401
 M.B. 741-49/50

.198.85 .198.97 .198.98

EASEMENTS IF ANY, ARE NOT SHOWN ON THIS SURVEY..

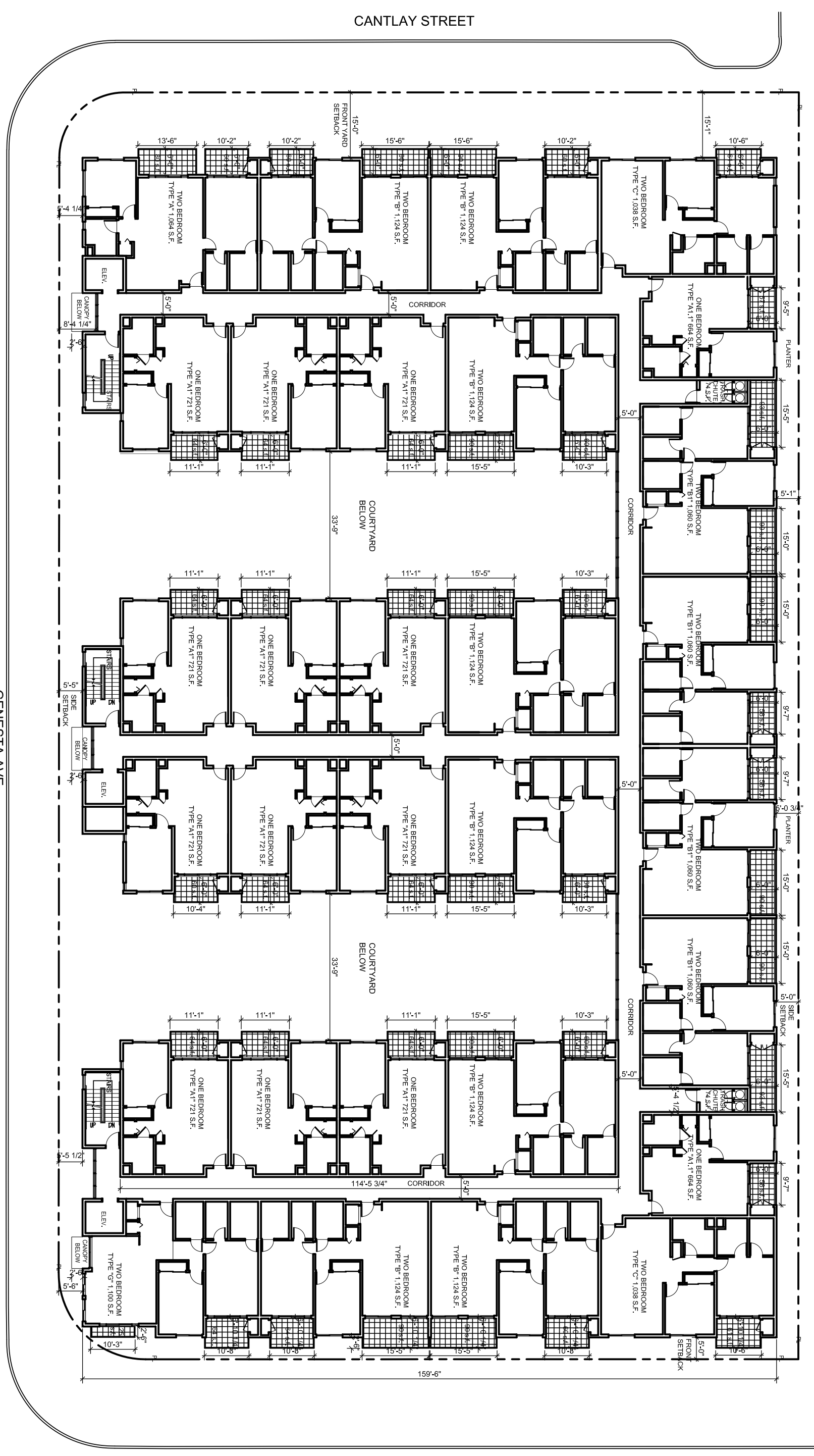
SURVEYED BY: GDR MKRTCHYAN
 DATE: 11-18-2020



PROVIDED COMMON OPEN SPACE AT 1ST FLOOR 3,400 S.F. + 1000 S.F. + 610 S.F. = 5,010 S.F.
 PROVIDED PRIVATE OPEN SPACE AT 1ST FLOOR 2,329 S.F.
 (ONLY 50 S.F. IS COUNTED TOWARDS PRIVATE OPEN SPACE)
 50S.F. X 23 UNITS = 1,150 S.F.

FIRST FLOOR PLAN

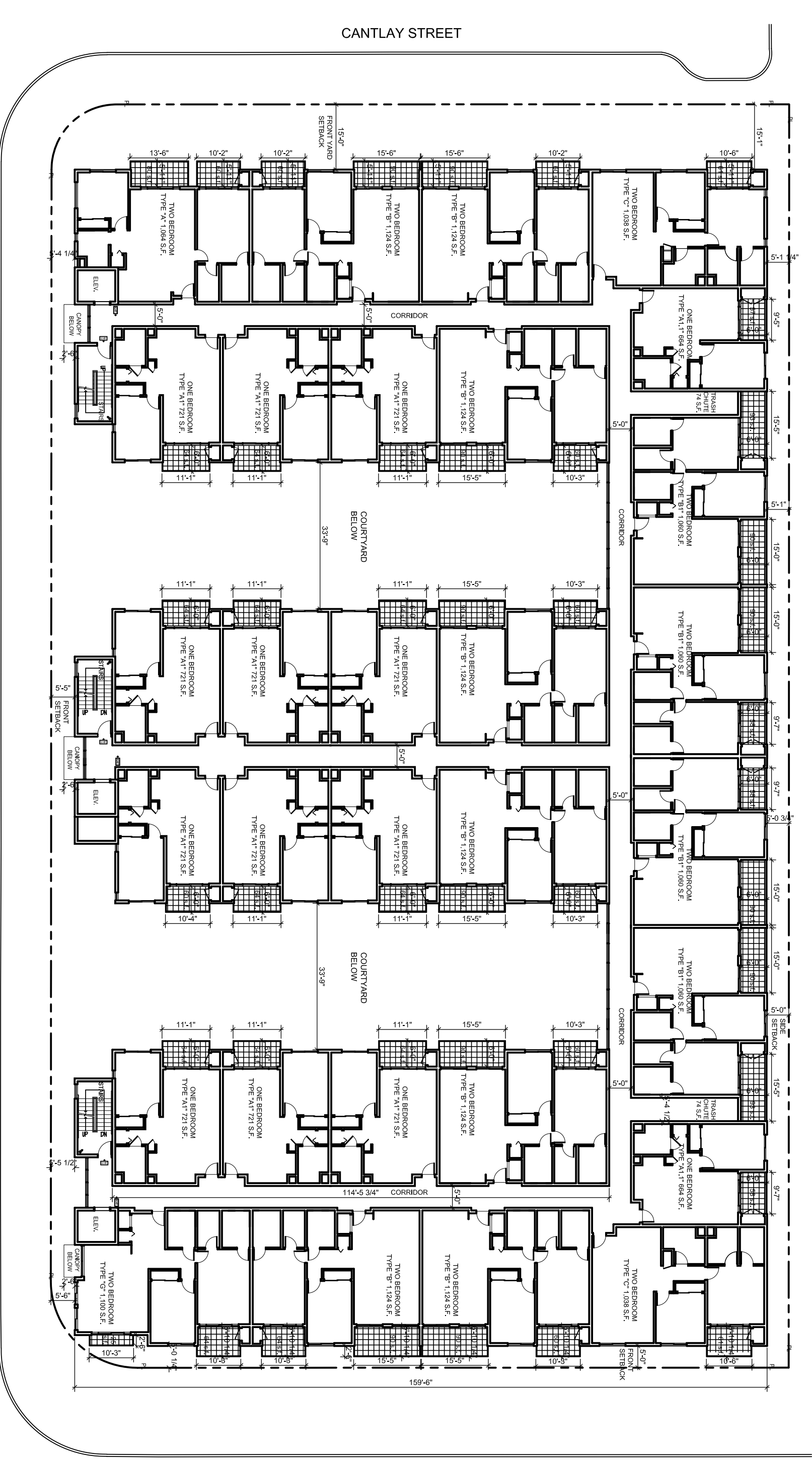
SCALE: 1/8" = 1'-0"



PROVIDED PRIVATE OPEN SPACE AT 2ND FLOOR 3,096 S.F.
 (ONLY 50 S.F. IS COUNTED TOWARDS PRIVATE OPEN SPACE)
 50 S.F. X 30 UNITS = 1,500S.F.
 PROVIDED PRIVATE OPEN SPACE AT 3RD FLOOR 3,096 S.F.
 (ONLY 50 S.F. IS COUNTED TOWARDS PRIVATE OPEN SPACE)
 50 S.F. X 30 UNITS = 1,500S.F.

2ND AND 3RD FLOOR PLANS

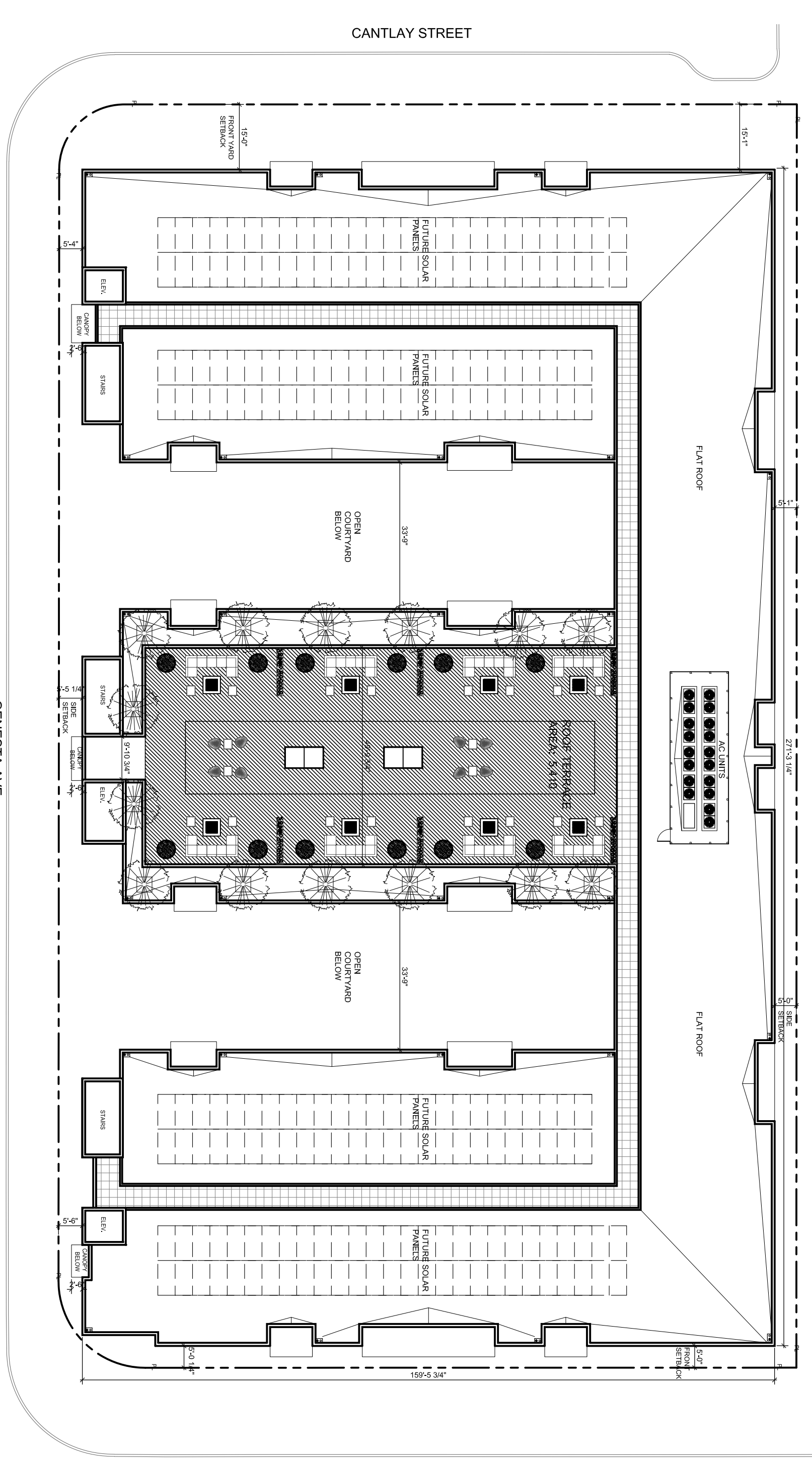
SCALE: 1/8" = 1'-0"



PROVIDED PRIVATE OPEN SPACE AT 4TH FLOOR 3,096 S.F.
 (ONLY 50 S.F. IS COUNTED TOWARDS PRIVATE OPEN SPACE)
 50S.F. X 28 UNITS = 1,400 S.F.

FOURTH FLOOR PLAN

SCALE: 1/8" = 1'-0"

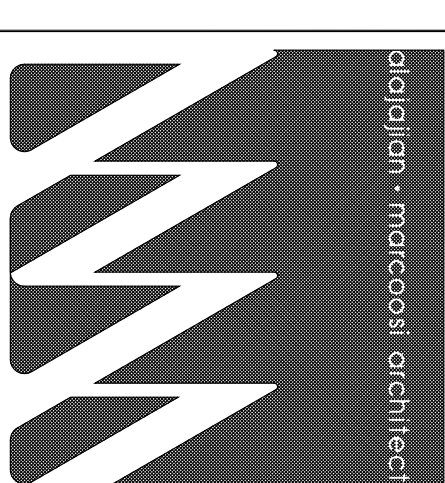


PROVIDED COMMON OPEN SPACE AT ROOF DECK 5,410 S.F.

ROOF PLAN

SCALE: 1/8" = 1'-0"

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**Aldajlan
 Marcoosi
 Architects Inc.**
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 Glendale, CA 91203
 Phone: (818) 244-5130
 Fax: (818) 551-1613
 Email: aram@worddata.net

Owner:
**LION SIGNATURE
 INC.**

Project Address:
**111 UNIT
 MIXED-USE
 PROJECT**
 18940-18955 W. SHERMAN WAY
 LOS ANGELES, CA 91409

**PRIVATE AND
 COMMON
 OPEN SPACE
 DIAGRAM**

Scale: 1/8" = 1'-0"

KEY PLAN

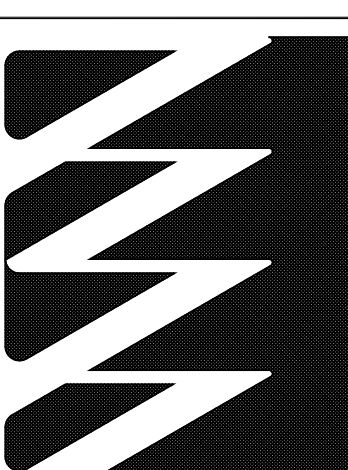
- APPROVED
- APPROVED
- REVISION
- REVISION
- REVISION
- DRAWN BY

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aldajjian • marcoosi architects



**Aldajjian
Marcoosi
Architects Inc.**

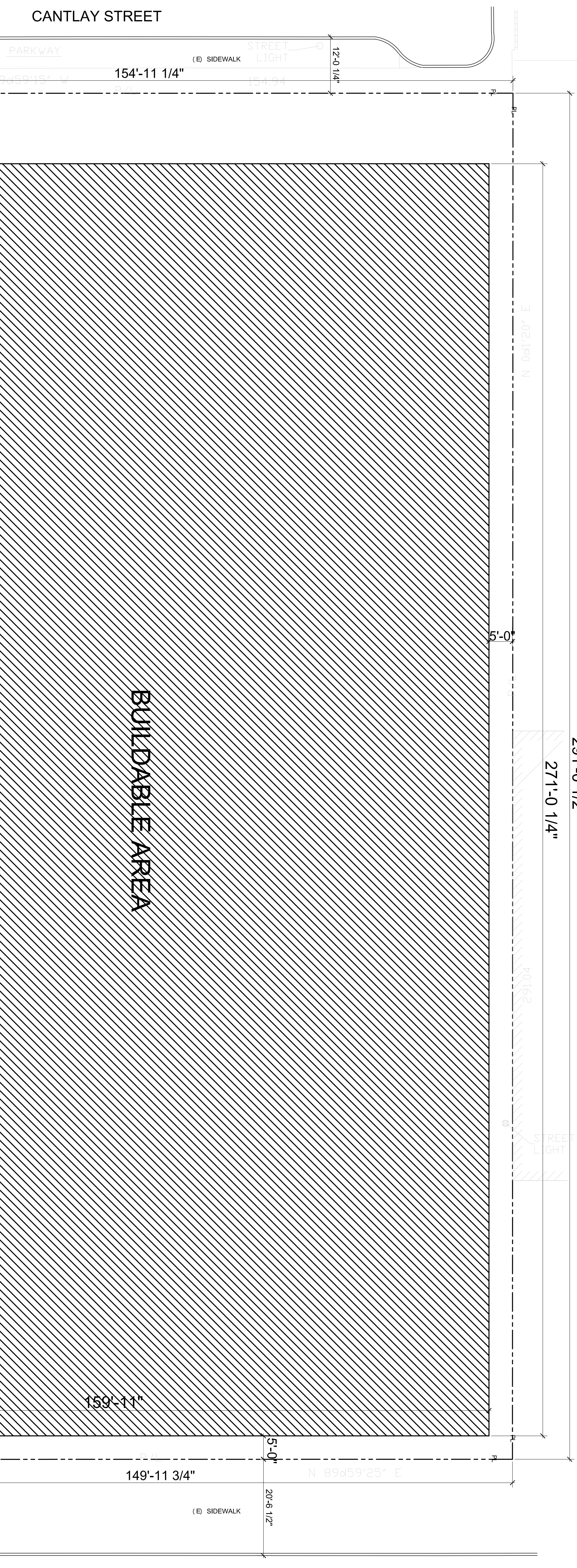
320 W. Arden Ave., Suite 120
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Fax: (818) 551-1613
Email: aramar@worldnet.att.net

Owner:
**LION SIGNATURE
INC.**

Owner Address:
100 Franklin Court
Glendale, CA 91205

Project Name:
**111 UNIT
MIXED-USE
PROJECT**

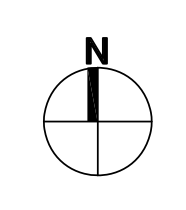
Project Address:
**18946-18955 W. SHERMAN WAY
LOS ANGELES, CA 91408**



LOT SIZE:
BUILDING AREA =
F.A.R. WITHIN YARD: REQUIRED BUILDING AREA X3
PROVIDED BUILDING AREA:

49,333.3 SQ. FT.
43,290 SQ. FT.
= 43,290 X 3 = 129,870 SQ. FT.
115,391 SQ. FT.

GENESTA AVE.



BUILDABLE AREA DIAGRAM
SCALE: 1/4" = 1'-0"

**BUILDABLE
AREA
DIAGRAM**

Scale: "1/4" = 1'-0"

KEY PLAN

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- REVISION
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- PRINT DATE 12.10.22
- JOB NO
- SHEET NO

A-0.3

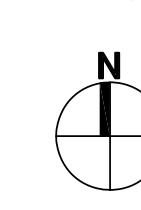
VESTING ZONE CHANGE TO (T)(Q)RAS4-1VL
291'-0 1/2"

146'-0 1/2" P-1VL

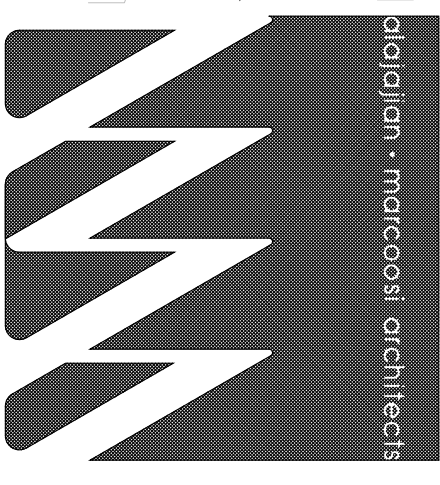
145'-0" C1-1VL, CR-1VL



1 SITE PLAN
SCALE: 1/8" = 1'-0"



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Owner:
**LION SIGNATURE
INC.**

Owner Address:
**100 Franklin Court
Glendale, CA 91205**
Project Name:
**111 UNIT
MIXED-USE
PROJECT**
Project Address:
**18946-18955 W. SHERMAN WAY
LOS ANGELES, CA 91408**

SITE PLAN

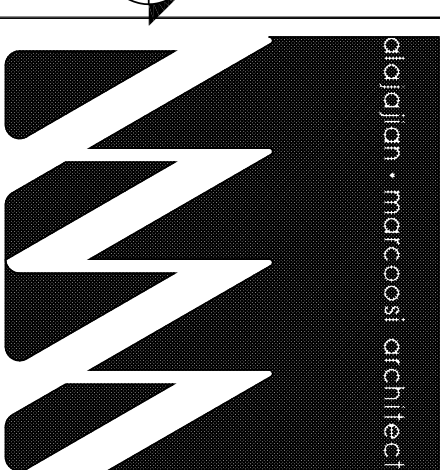
KEY PLAN

Scale: "1/8" = 1'-0"

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A-11

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Fax: (818) 551-1613
Email: aram@worldnet.att.net

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111 UNIT MIXED-USE PROJECT

Project Address:
**18940-18955 W. SHERMAN WAY
LOS ANGELES, CA 91408**

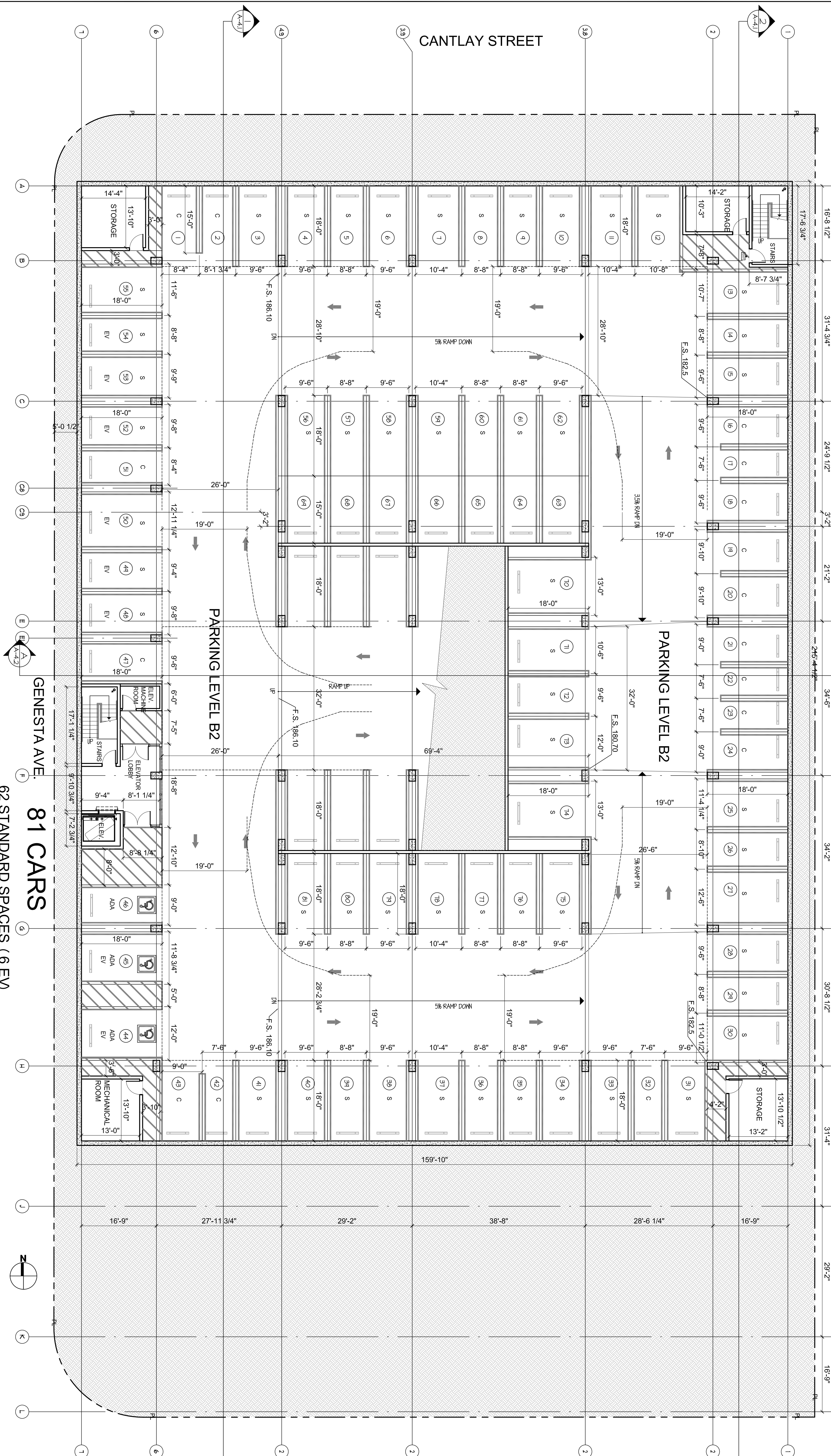
SUBTERRANEAN PARKING PLAN B2

Scale: =1/8"=1'-0"

KEY PLAN

- APPROVED
- APPROVED
- REVISION
- REVISION
- REVISION
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A-2.0



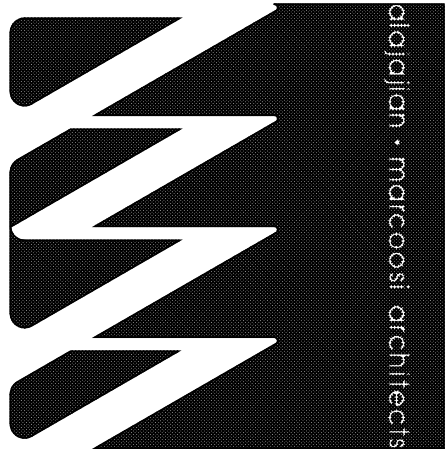
81 CARS

62 STANDARD SPACES (6 EV)
16 COMPACT SPACES
3 ADA SPACES (2 EV)
TOTAL 81

1 SUBTERRANEAN PARKING PLAN B2

SCALE: 1/8" = 1'-0"

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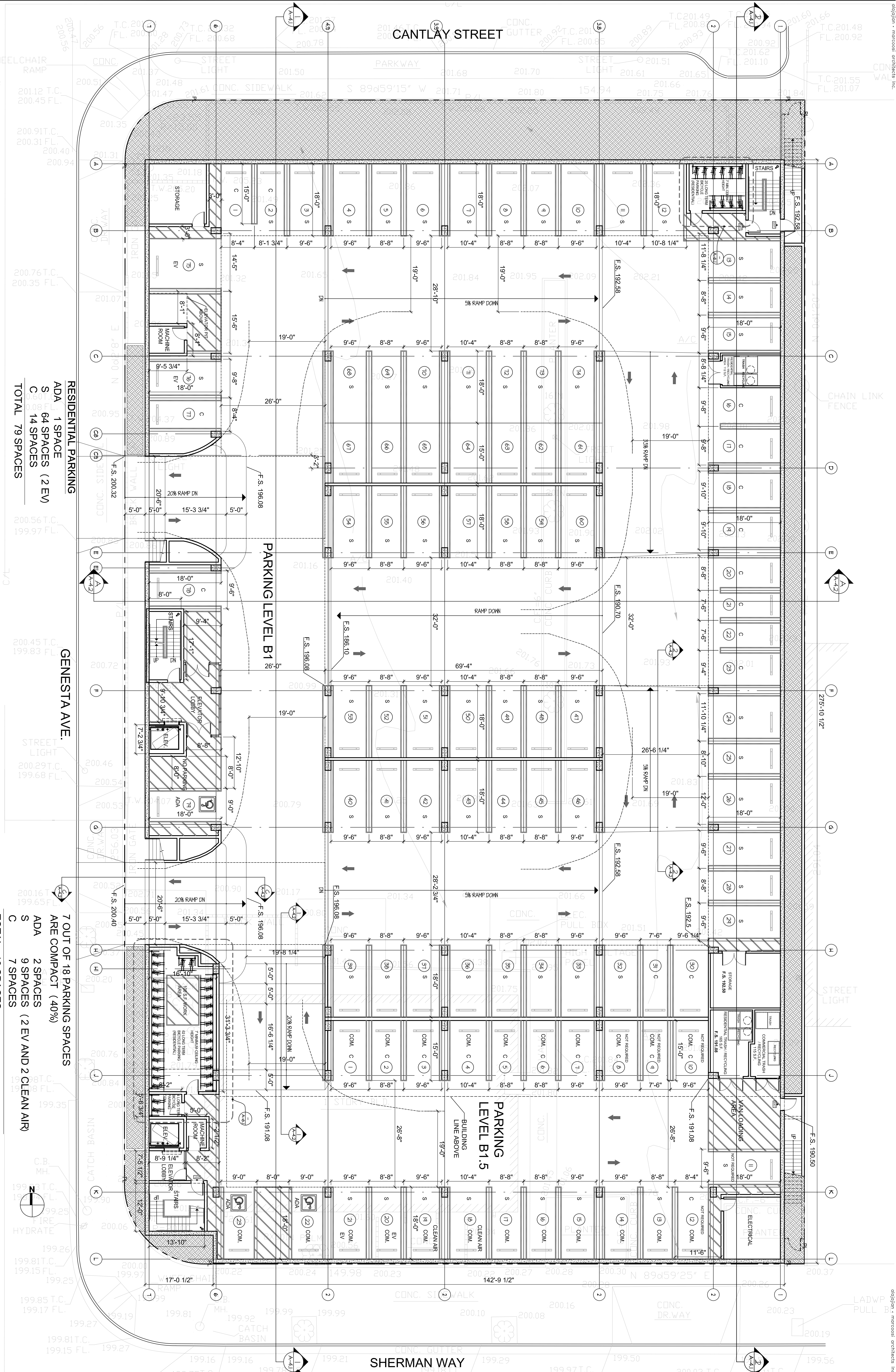
Alqajjan Marcoosi Architects Inc.
 320 W. Arden Ave., Suite 120
 Glendale, CA 91203
 Phone: (818) 244-5130
 Fax: (818) 551-1613
 E-mail: aram@wordnet.atl.net

LION SIGNATURE INC.
 Owner Address:
 100 Franklin Court
 Glendale, CA 91205
 Project Name:
 111 UNIT MIXED-USE PROJECT
 Project Address:
 1849-1865 W. SHERMAN WAY
 LOS ANGELES, CA 91408

SUBTERRANEAN PARKING PLAN B1 AND B1.5
 Scale: "1"=1'-0"

- KEYPLAN**
- APPROVED
 - APPROVED
 - REVISION
 - REVISION
 - REVISION
 - DRAWN BY
 - PRINT DATE 07.28.22
 - JOB NO
 - SHEET NO

A-2.1

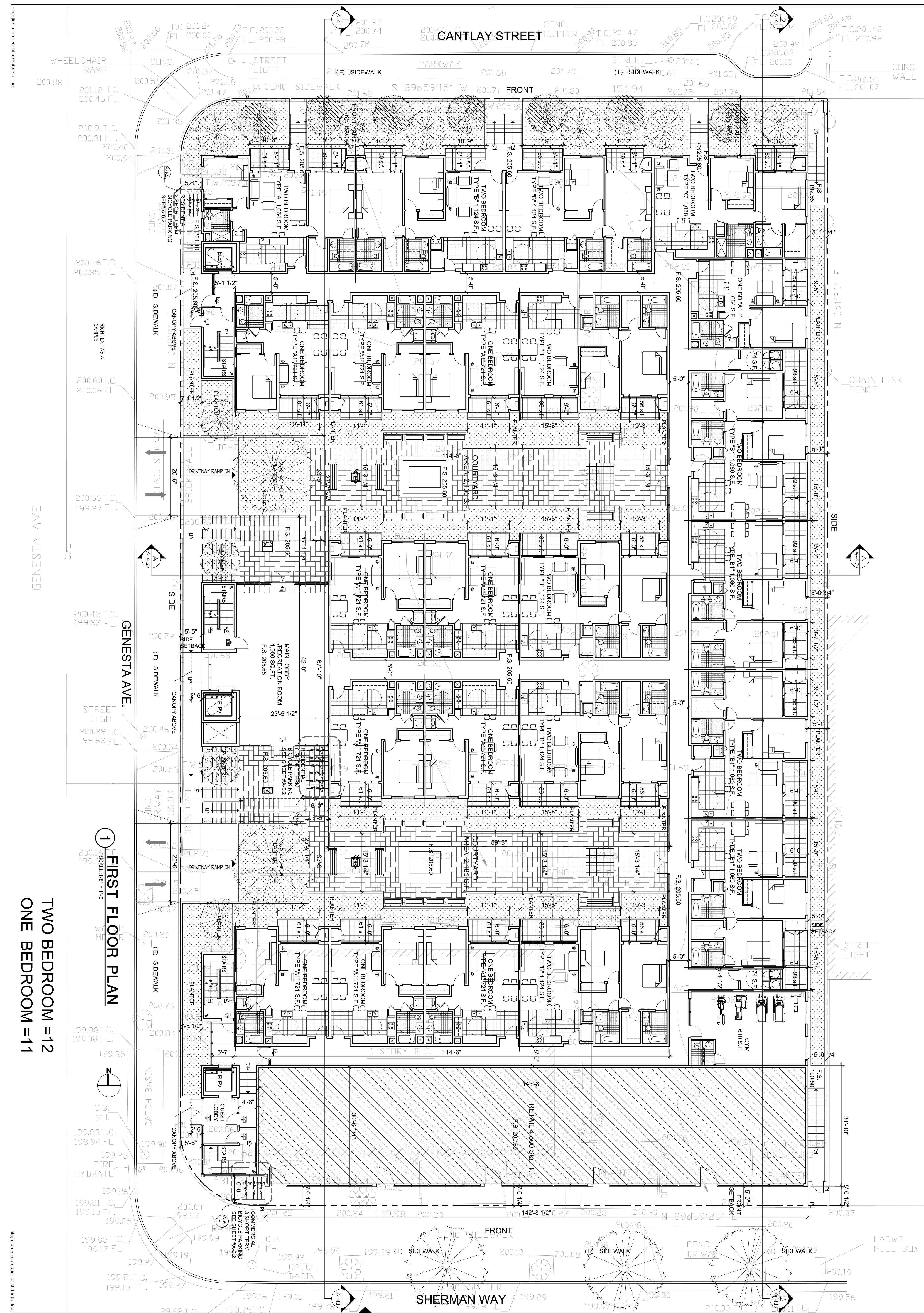


RESIDENTIAL PARKING
 ADA 1 SPACE
 S 64 SPACES (2 EV)
 C 14 SPACES
TOTAL 79 SPACES

GENESTA AVE.
102 CARS

7 OUT OF 18 PARKING SPACES ARE COMPACT (40%)
 ADA 2 SPACES
 S 9 SPACES (2 EV AND 2 CLEAN AIR)
 C 7 SPACES
TOTAL 18 SPACES

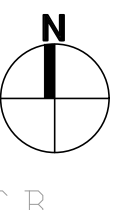
1 SUBTERRANEAN PARKING PLAN B1 AND B1.5
 SCALE: 1/8" = 1'-0"



1 FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

TWO BEDROOM = 12
ONE BEDROOM = 11



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- REVISION
- DRAWN BY
- PRINT DATE 12.10.22
- JOB NO.
- SHEET NO.

A-2.2

KEYPLAN

Scale: 1/4" = 1'-0"

1ST FLOOR PLAN

111 UNIT MIXED-USE PROJECT

Project Address:
1894-1895 W SHERMAN WAY
LOS ANGELES, CA 91408

Owner Address:
100 Franklin Court
Glendale, CA 91205

Project Name:
111 UNIT MIXED-USE PROJECT

Owner:
LION SIGNATURE INC.

Architect:
Aldajjan Marcoosi Architects Inc.
320 W. Arden Ave., Suite 120
Glendale, CA 91203
Phone: (818) 244-5130
Fax: (818) 551-1613
E-mail: aramaj@worldnet.att.net

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Fax: (818) 551-1613
E-mail: aramaj@worldnet.att.net

LION SIGNATURE INC.

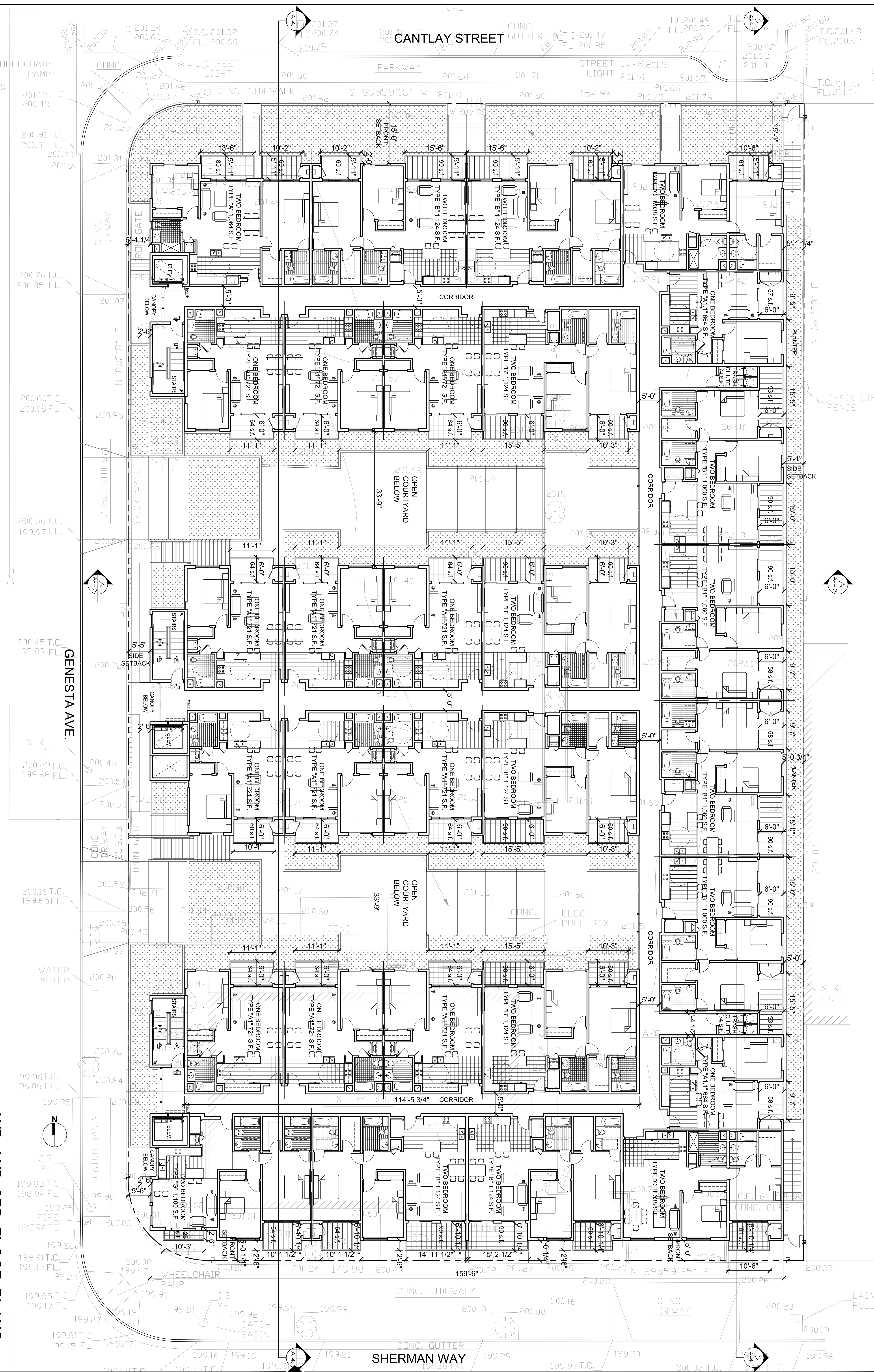
Owner Address:
100 Franklin Court
Glendale, CA 91205

Project Name:
111 UNIT MIXED-USE PROJECT

Owner:
LION SIGNATURE INC.

Architect:
Aldajjan Marcoosi Architects Inc.
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E-mail: aramaj@worldnet.att.net

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TWO BEDROOM = 16
ONE BEDROOM = 14

1 2ND AND 3RD FLOOR PLANS
SCALE: 1/8" = 1'-0"

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- APPROVED
- REVISION
- REVISION
- REVISION
- DRAWN BY
- PRINT DATE 12.10.22
- JOB NO.
- SHEET NO.

A-2.3

KEYPLAN
Scale: 1/8" = 1'-0"

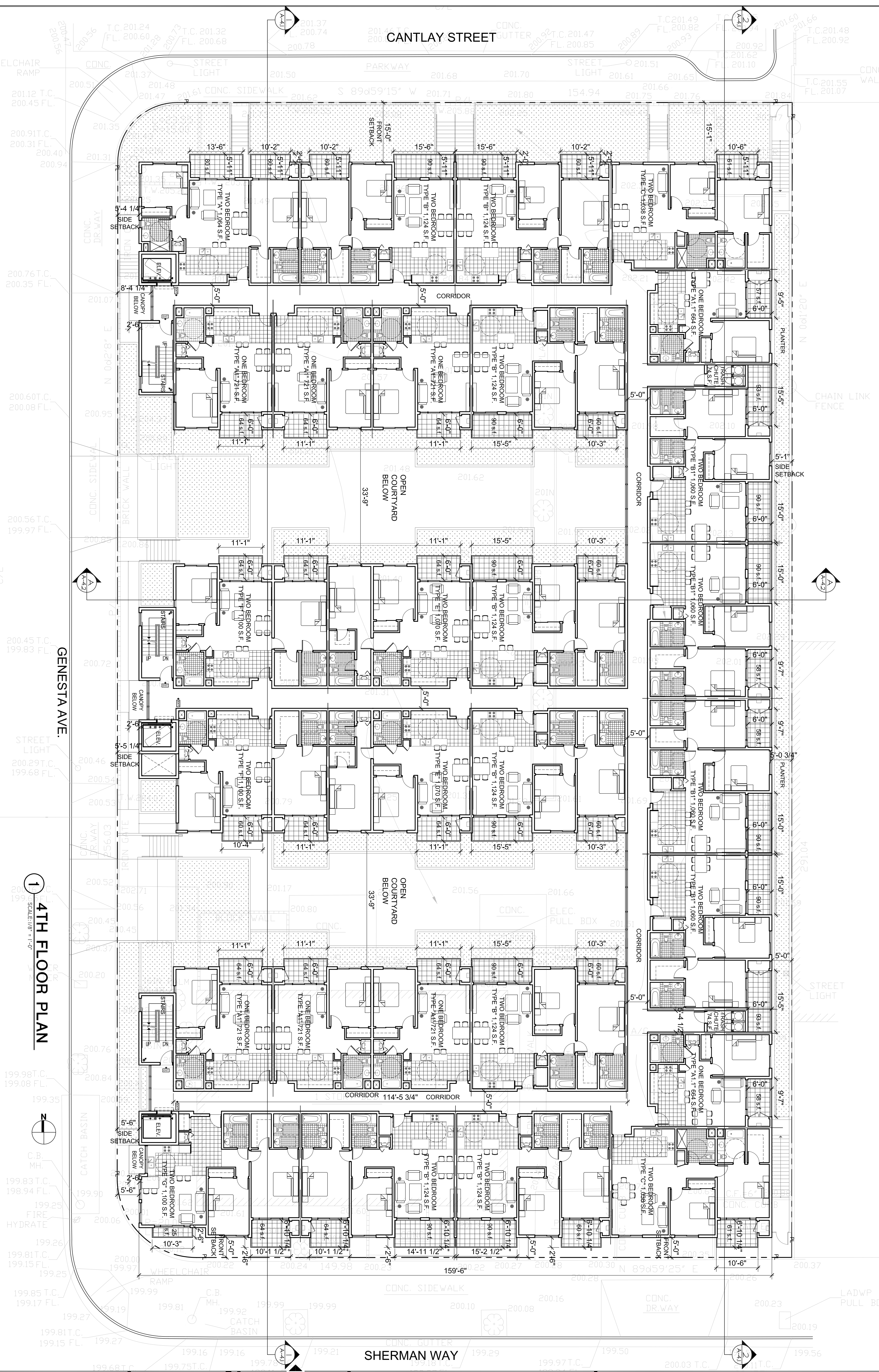
2ND AND 3RD FLOORS

11 UNIT MIXED-USE PROJECT
100 Franklin Court
Glendale, CA 91205
Project Number:
11 UNIT MIXED-USE PROJECT
1894-1895 SHERMAN WAY
LOS ANGELES, CA 91408

ajdajjan + marcoosi architects
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E-mail: amara@ajdajjan.com

LION SIGNATURE INC.
Owner Address:
100 Franklin Court
Glendale, CA 91205
Project Number:
11 UNIT MIXED-USE PROJECT
1894-1895 SHERMAN WAY
LOS ANGELES, CA 91408

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1 4TH FLOOR PLAN

TWO BEDROOM = 20
ONE BEDROOM = 8

- APPROVED
- APPROVED
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- REVISION
- REVISION
- DRAWN BY
- PRINT DATE 07.28.22
- JOB NO.

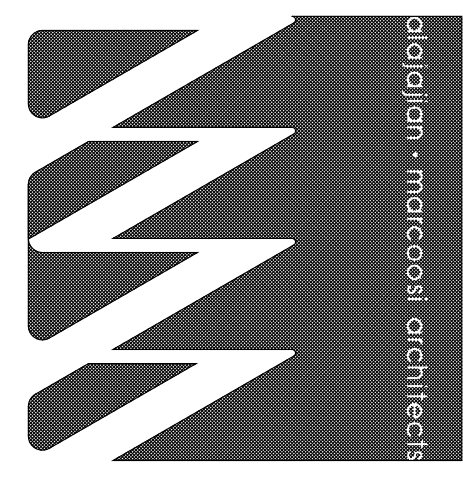
4TH FLOOR PLAN

Scale: =1/8\"/>

KEY PLAN

A-2.4

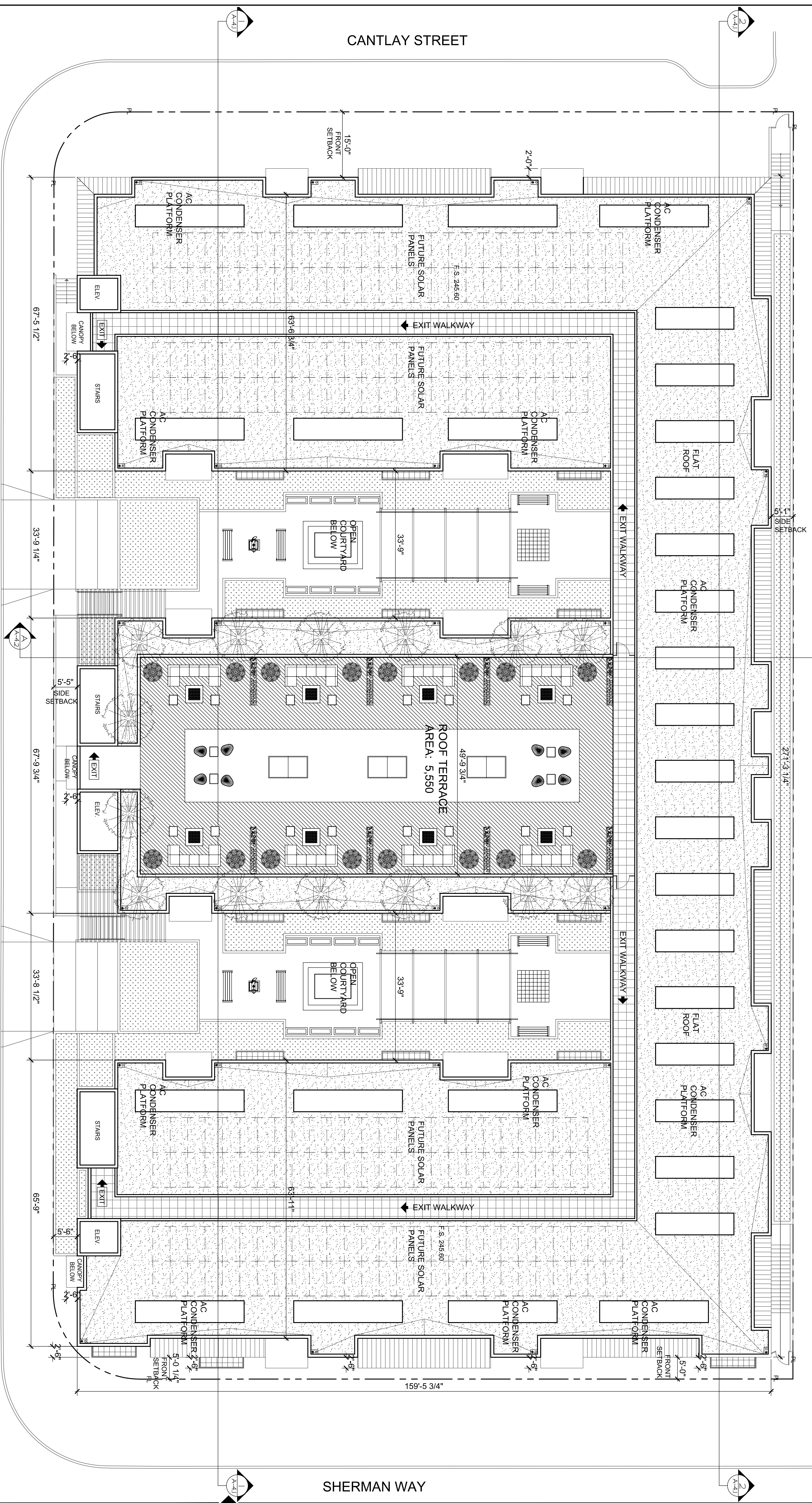
THE ABOVE DRAWINGS AND SPECIFICATIONS AND HEREBY ARE AND SHALL REMAIN THE PROPERTY OF ALDAJJIAN - MARCOOSI ARCHITECTS INC. NO PART OF THESE DRAWINGS OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ALDAJJIAN - MARCOOSI ARCHITECTS INC. THESE DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE CONTRACT DOCUMENTS OF THESE RESIDENTS. ANY CHANGES TO THESE DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY A WRITTEN INSTRUMENT SIGNED BY ALL PARTIES. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND SPECIFICATIONS SHALL BE RESOLVED BY THESE RESIDENTS. THESE DRAWINGS AND SPECIFICATIONS SHALL BE VOID IF NOT SIGNED BY THESE RESIDENTS. THESE DRAWINGS AND SPECIFICATIONS SHALL BE VOID IF NOT SIGNED BY THESE RESIDENTS. THESE DRAWINGS AND SPECIFICATIONS SHALL BE VOID IF NOT SIGNED BY THESE RESIDENTS.



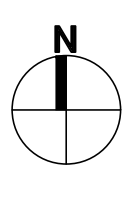
**Aldajjian
Marcoosi
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Owner:
**LION SIGNATURE
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111 UNIT
MIXED-USE
PROJECT
Project Address:
**1894-1895 W SHERMAN WAY
LOS ANGELES, CA 90008**

100 Franklin Court
Glendale, CA 91205
Project Name:
**111 UNIT
MIXED-USE
PROJECT**
Project Address:
**1894-1895 W SHERMAN WAY
LOS ANGELES, CA 90008**



1 ROOF PLAN
SCALE: 3/32" = 1'-0"



ROOF PLAN

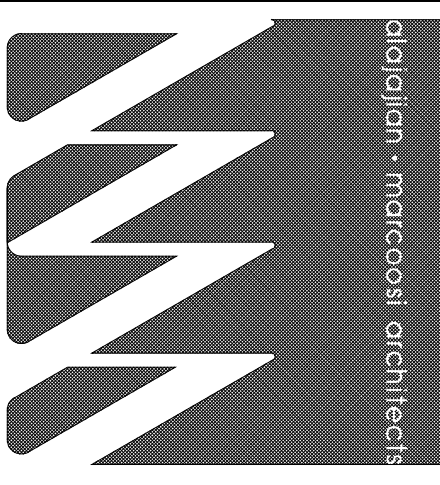
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KEYPLAN

- APPROVED
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- REVISION
- DRAWN BY
- PRINT DATE 12.10.22
- JOB NO
- SHEET NO

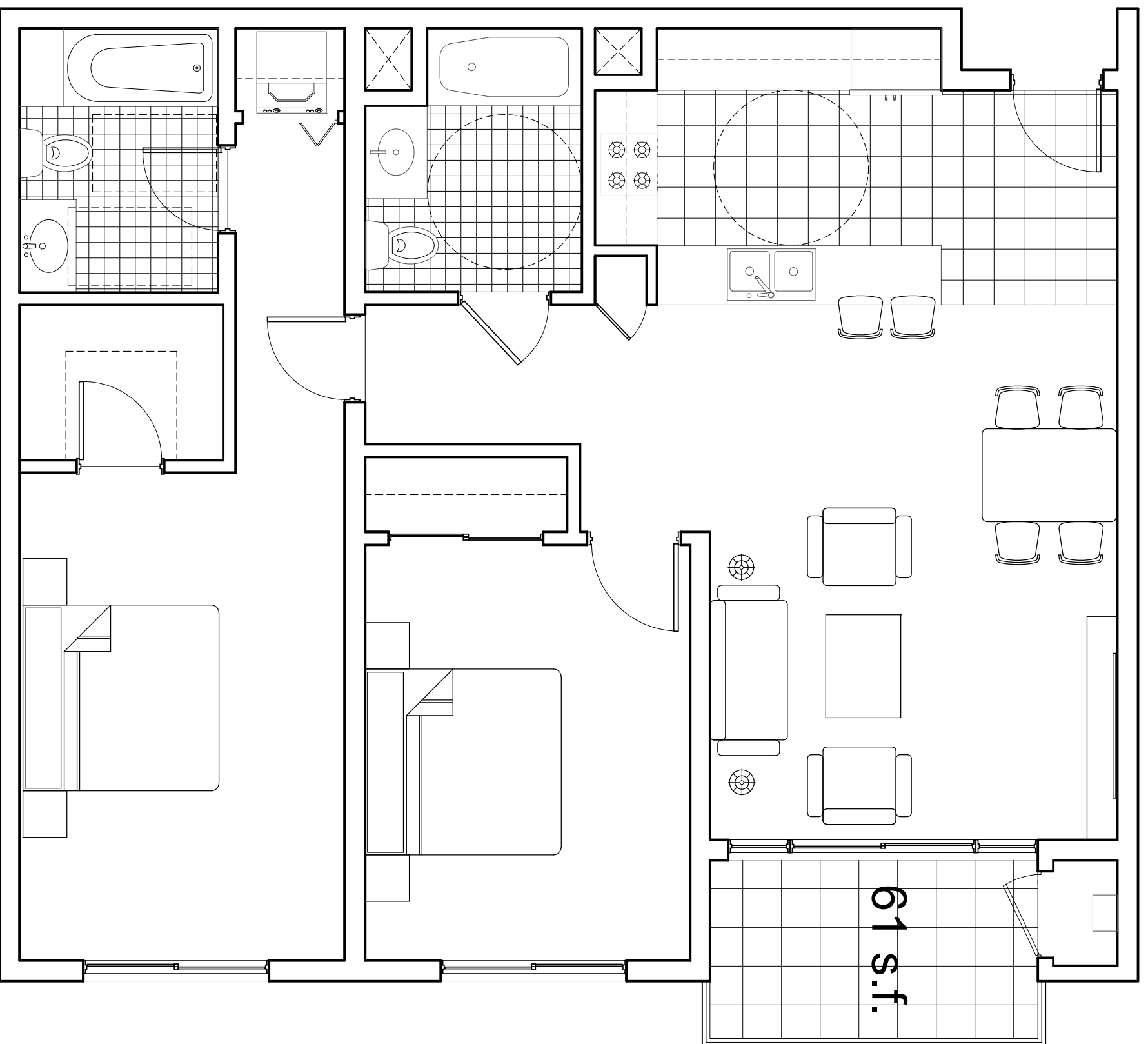
A-2.5

THE ABOVE DRAWINGS AND SPECIFICATIONS AND THEREBY ARE AND SHALL REMAIN THE PROPERTY OF ALAJAJAN MARCOOSI ARCHITECTS INC. AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ALAJAJAN MARCOOSI ARCHITECTS INC. THESE DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE A CONTRACT BETWEEN THE ARCHITECT AND THE CLIENT. ALL DIMENSIONS AND CONDITIONS ON THE JOB AND FROM THE DIMENSIONS AND CONDITIONS SHOWN IN THESE DRAWINGS SHALL BE THE BASIS FOR THE FABRICATION.

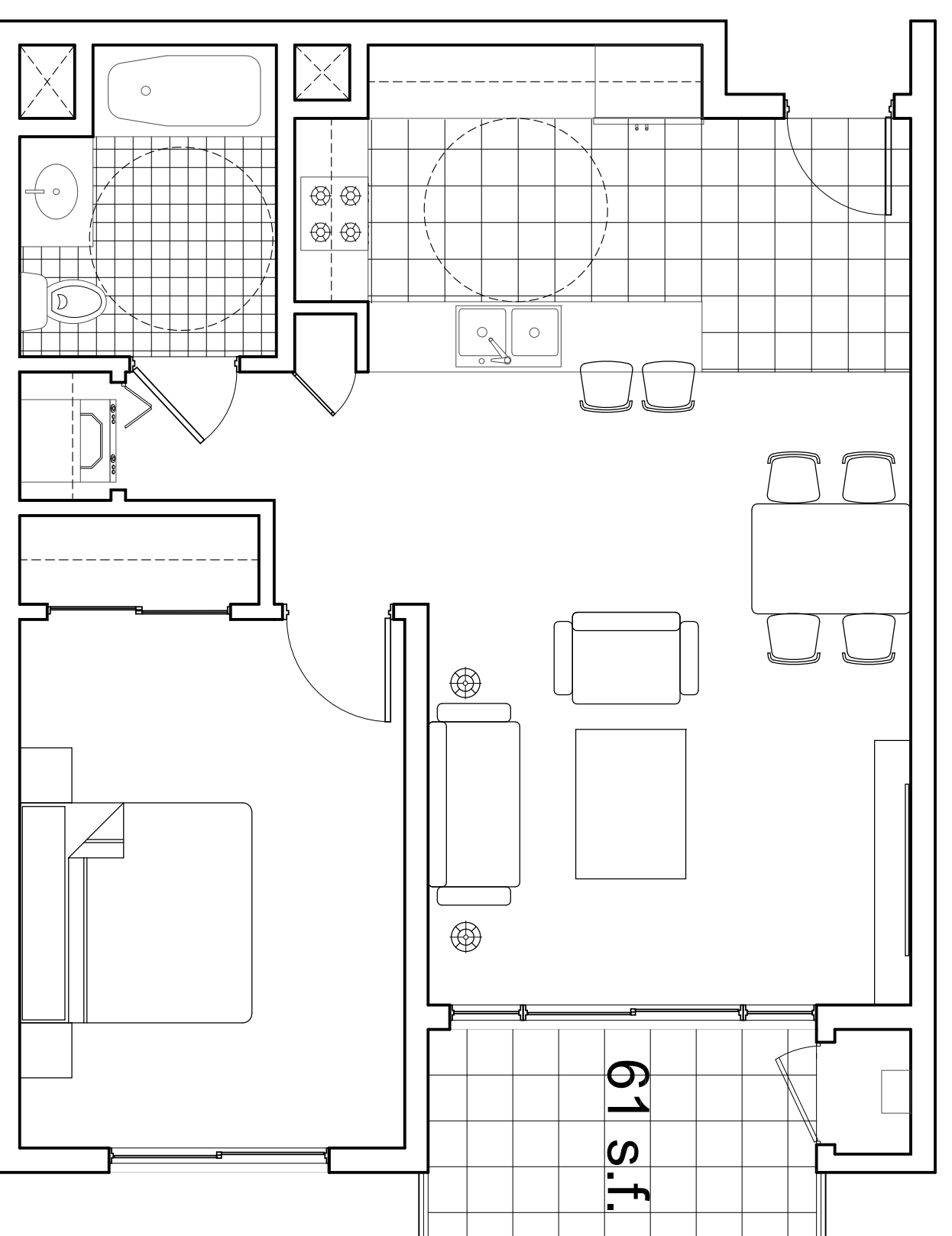


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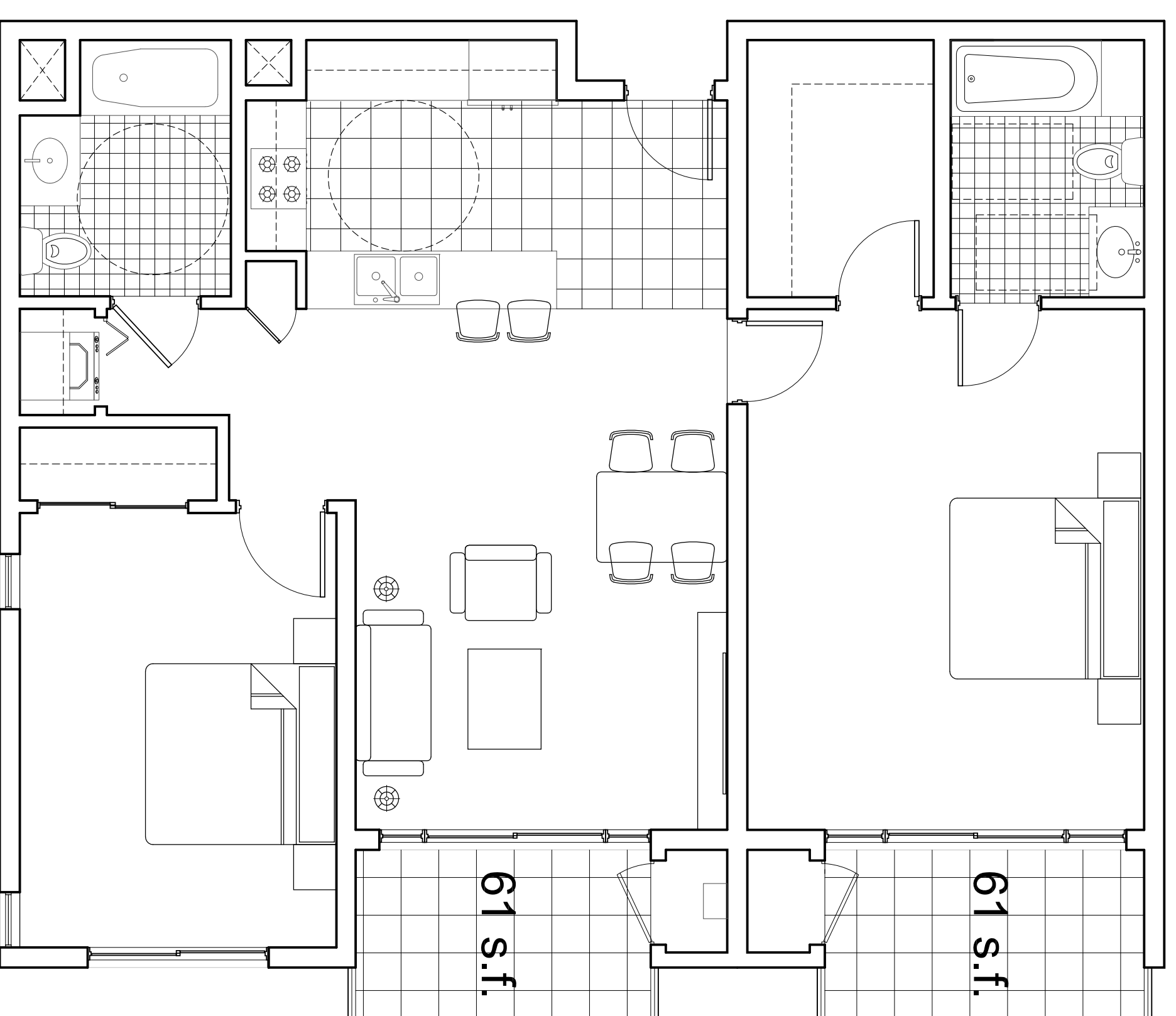
**LION SIGNATURE
INC.**
Owner Address:
100 Franklin Court
Glendale, CA 91205
Project Name:
111 UNIT
MIXED-USE
PROJECT
Project Address:
18946-18955 W SHERMAN WAY
LOS ANGELES, CA 91408



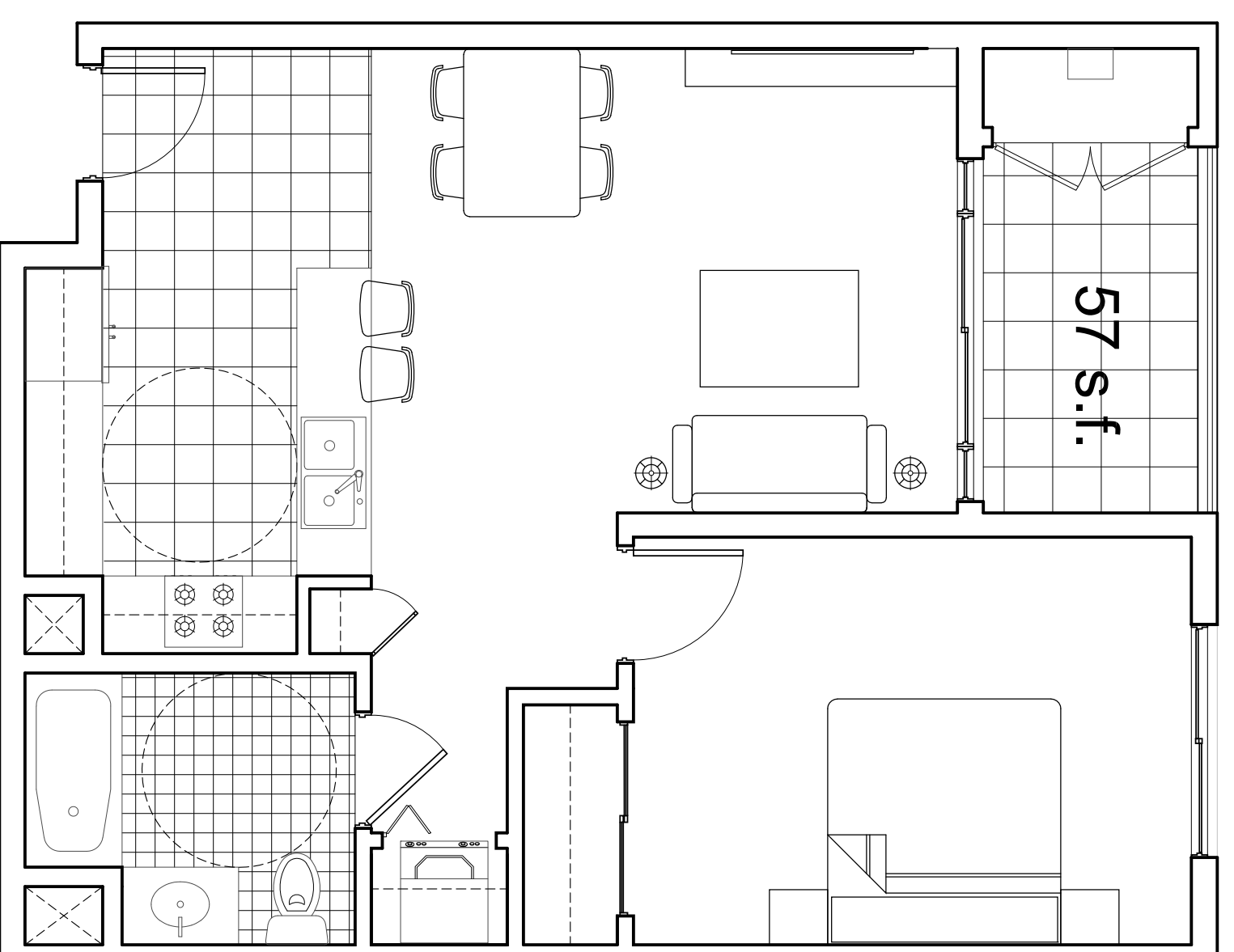
TWO BEDROOM TYPE "E"
AREA = 1,070 S.F.
>3 HABITABLE ROOMS



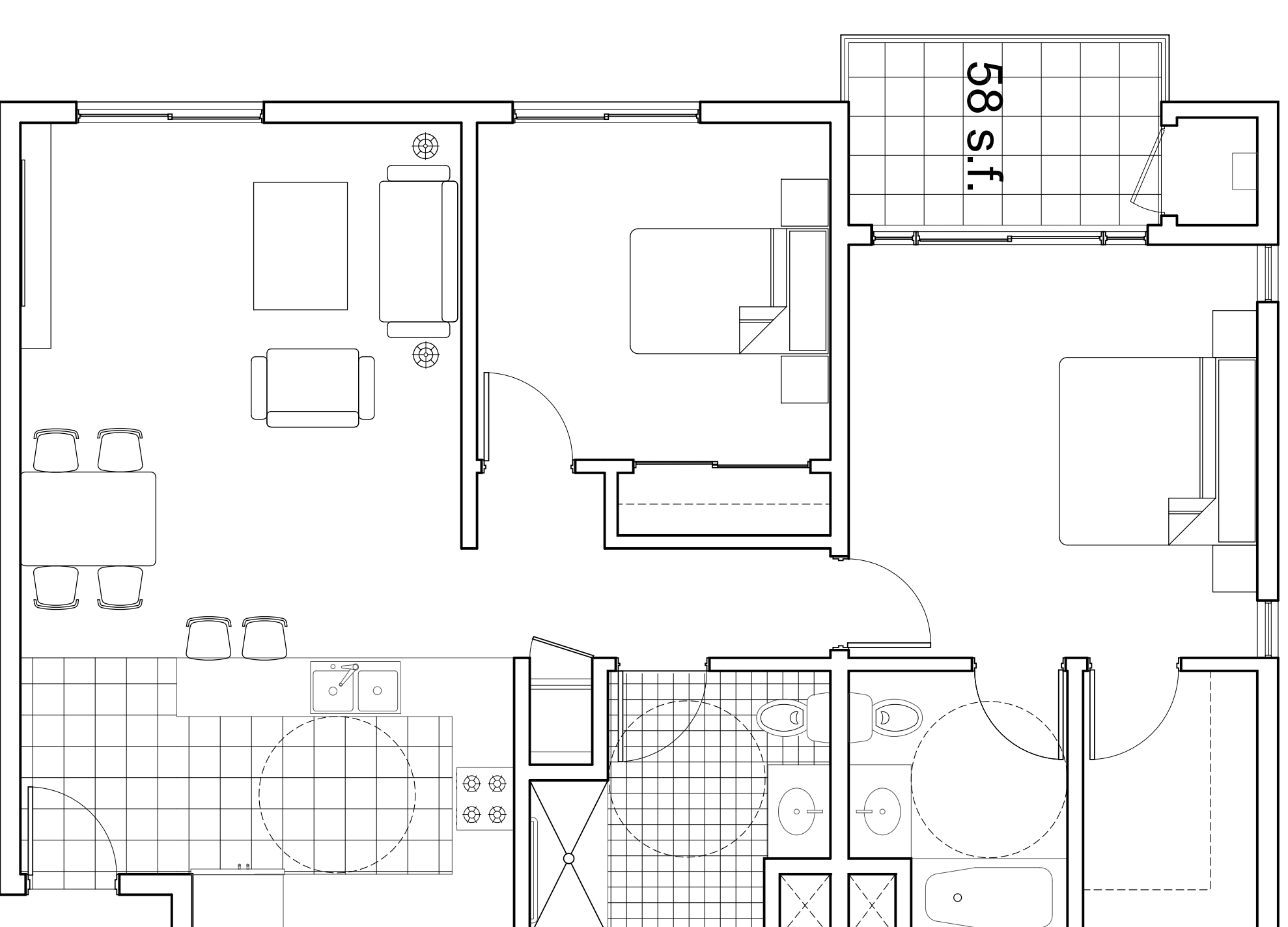
ONE BEDROOM TYPE "A1"
AREA = 721 S.F.



TWO BEDROOM TYPE "F"
AREA = 1,100 S.F.
>3 HABITABLE ROOMS

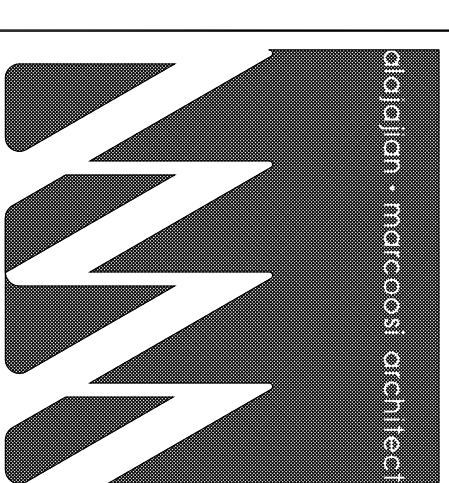


ONE BEDROOM TYPE "A1.1"
AREA = 664 S.F.



TWO BEDROOM TYPE "C"
AREA = 1,038 S.F.
>3 HABITABLE ROOMS

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Owner:
**LION SIGNATURE
 INC.**

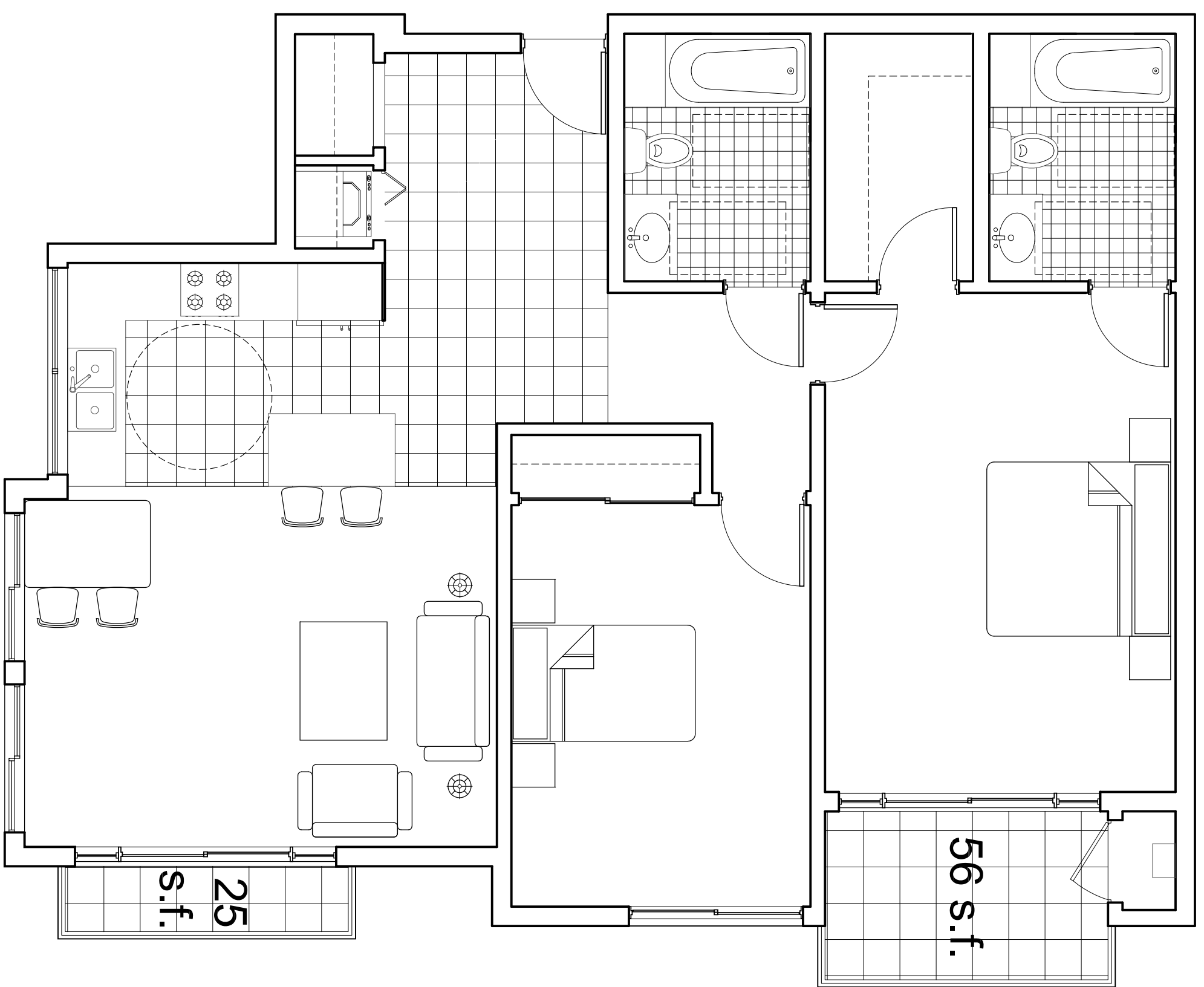
Owner Address:
**100 Franklin Court
 Glendale, CA 91205**
 Project Name:
**111 UNIT
 MIXED-USE
 PROJECT**
 Project Address:
**18940-18955 W. SHERMAN WAY
 LOS ANGELES, CA 91409**

**UNITS
 TYPES**

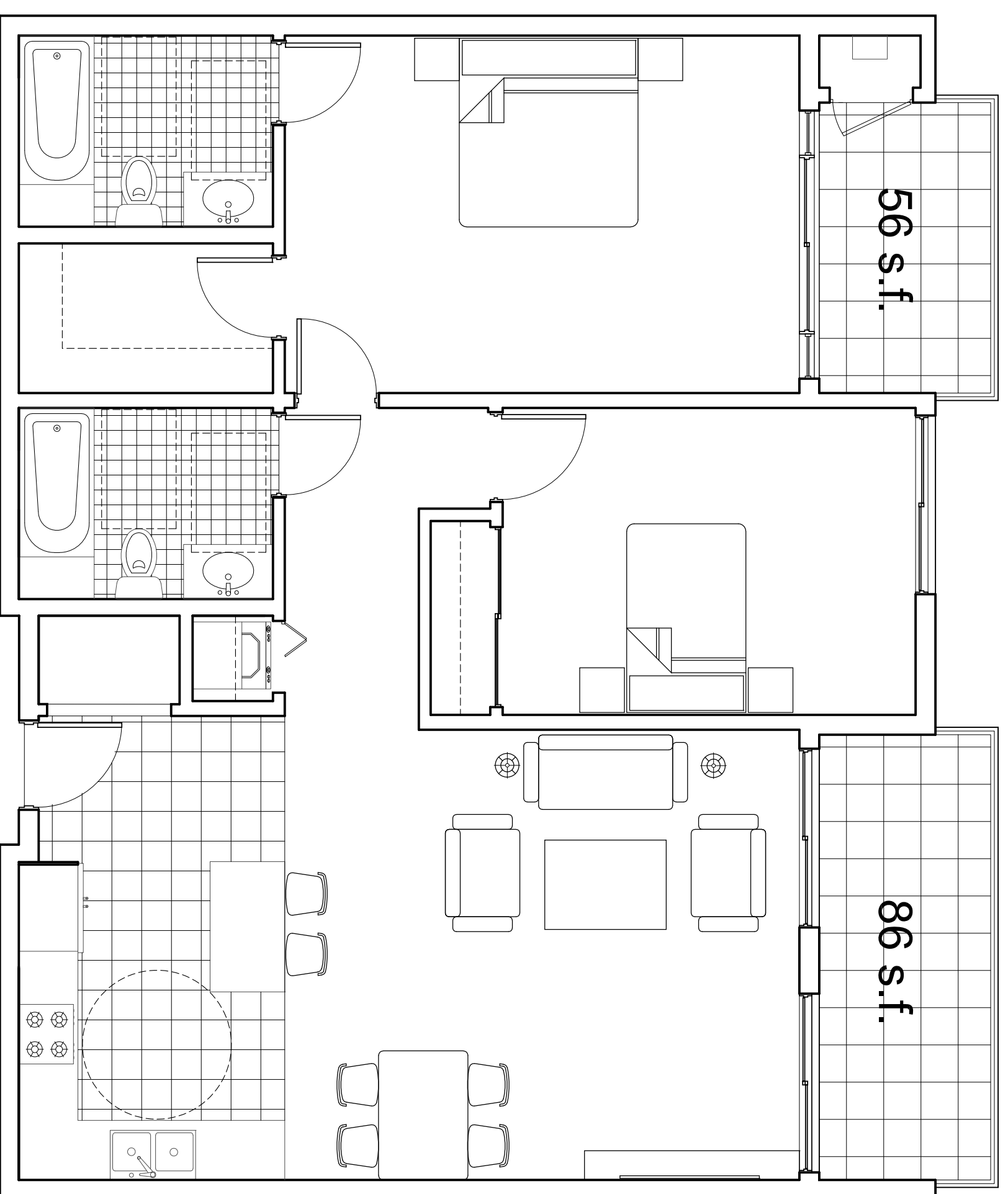
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KEYPLAN

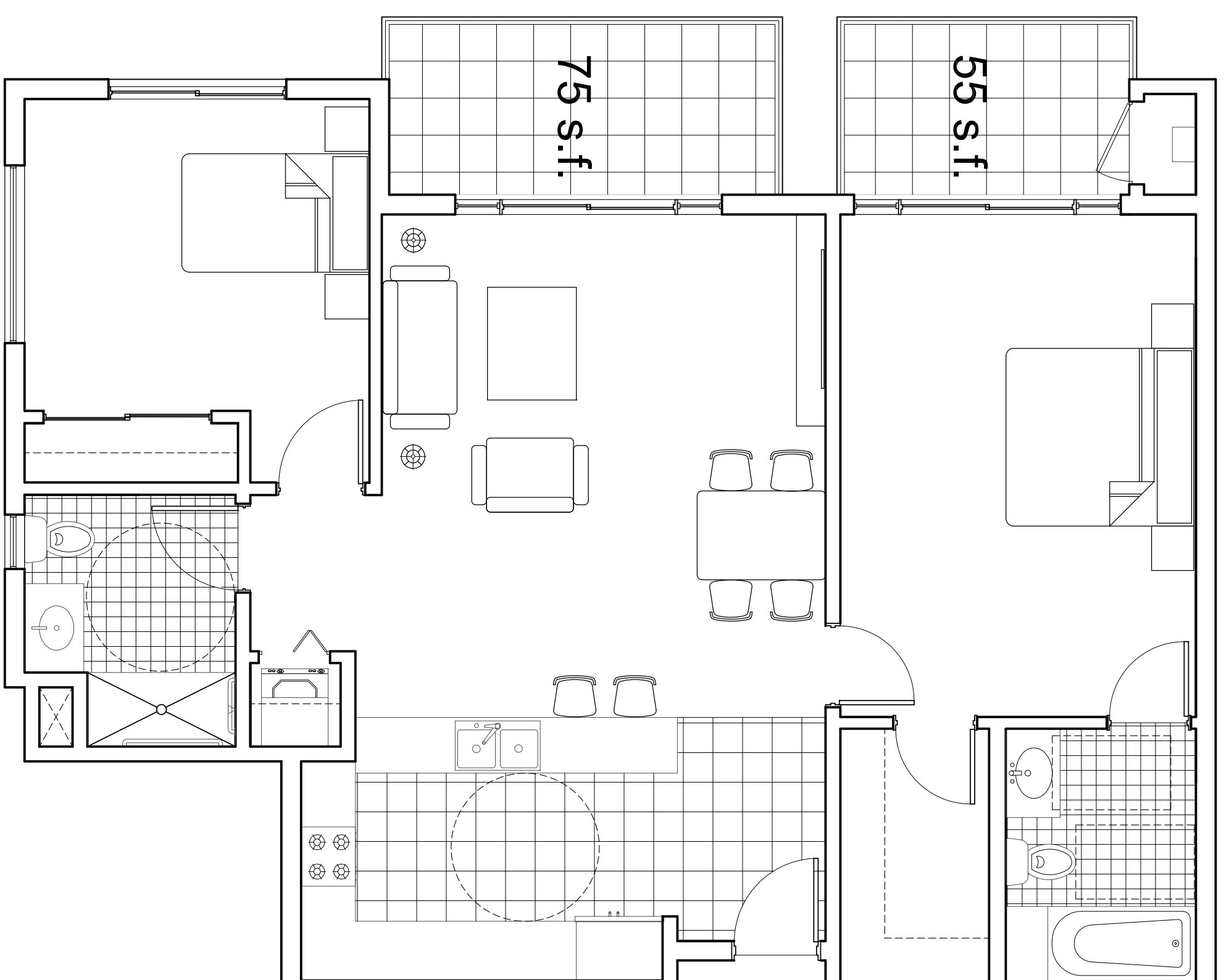
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- REVISION
- REVISION
- REVISION
- DRAWN BY
- PRINT DATE: 07.28.22
- JOB NO.
- SHEET NO.



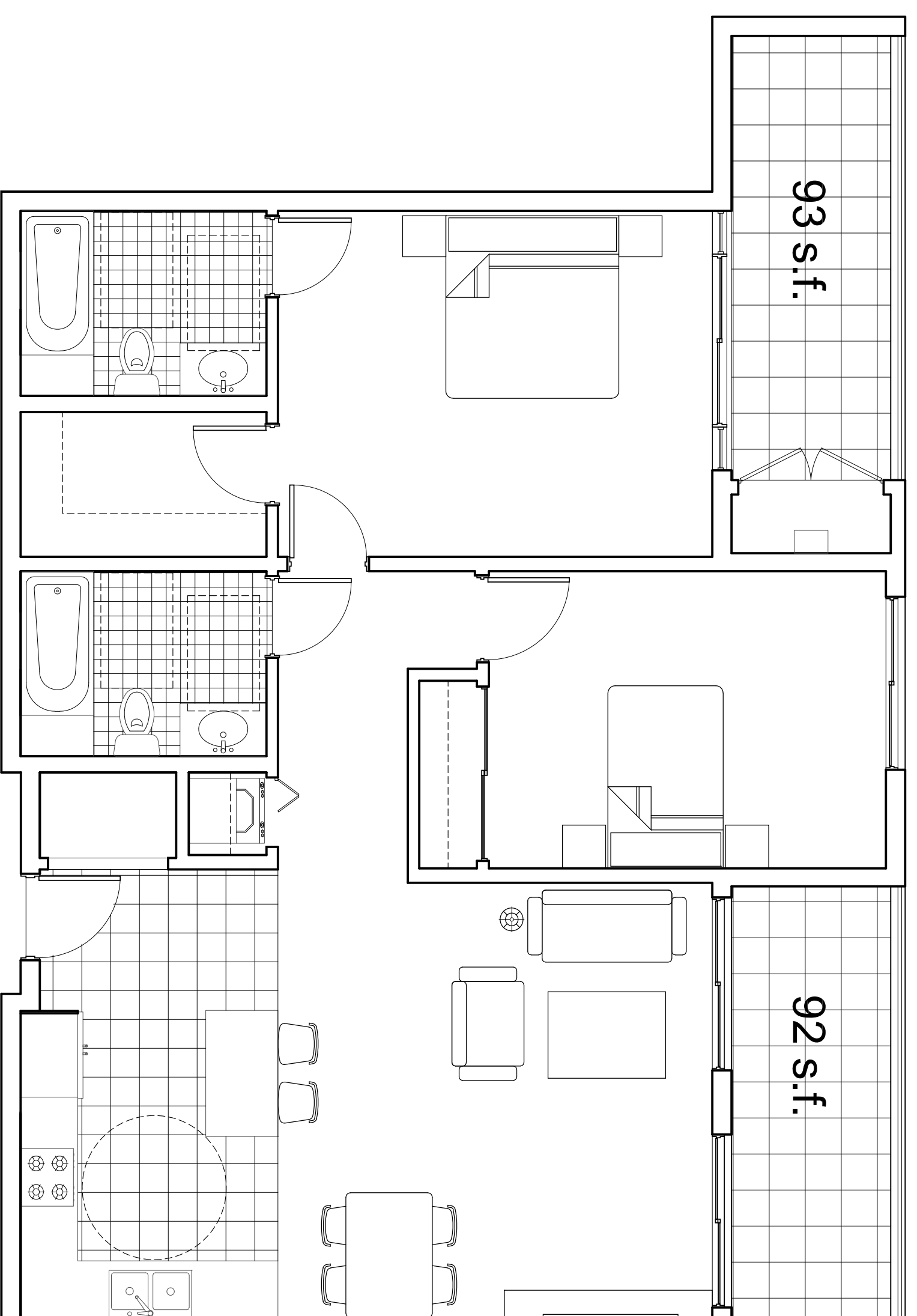
TWO BEDROOM TYPE "G"
 AREA = 1,100 S.F.
 >3 HABITABLE ROOMS



TWO BEDROOM TYPE "B"
 AREA = 1,124 S.F.
 >3 HABITABLE ROOMS

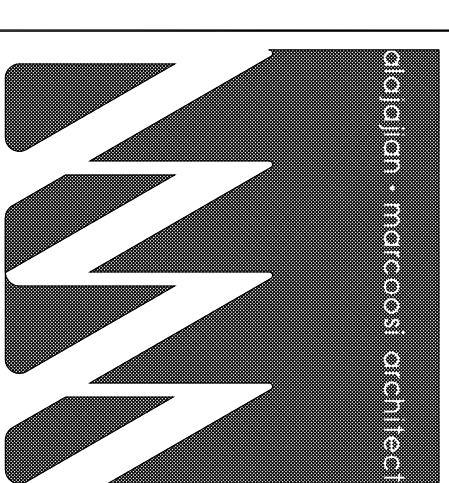


TWO BEDROOM TYPE "A"
 AREA = 1,046 S.F.
 >3 HABITABLE ROOMS



TWO BEDROOM TYPE "B1"
 AREA = 1,060 S.F.
 >3 HABITABLE ROOMS

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**Aljaljan
 Marcoosi
 Architects Inc.**
 320 W. Arden Ave. Suite 120
 Glendale, CA 91203
 Phone: (818) 244-5130
 Fax: (818) 551-1613
 Email: aramar@worldnet.att.net

Owner:
**LION SIGNATURE
 INC.**

Owner Address:
**100 Franklin Court
 Glendale, CA 91205**
 Project Name:
**111 UNIT
 MIXED-USE
 PROJECT**
 Project Address:
**1894d-1895s, W. SHERMAN WAY
 LOS ANGELES, CA 91408**

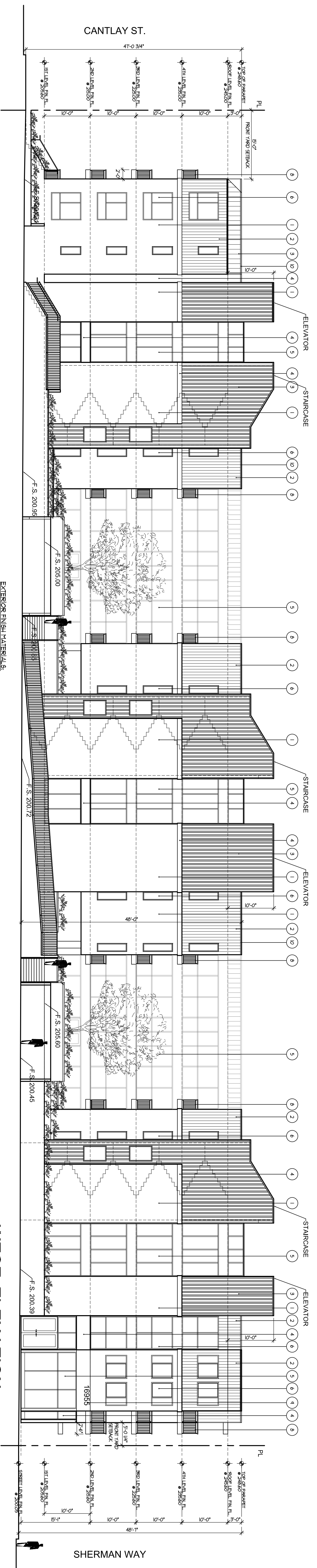
**UNITS
 TYPES**

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KEYPLAN

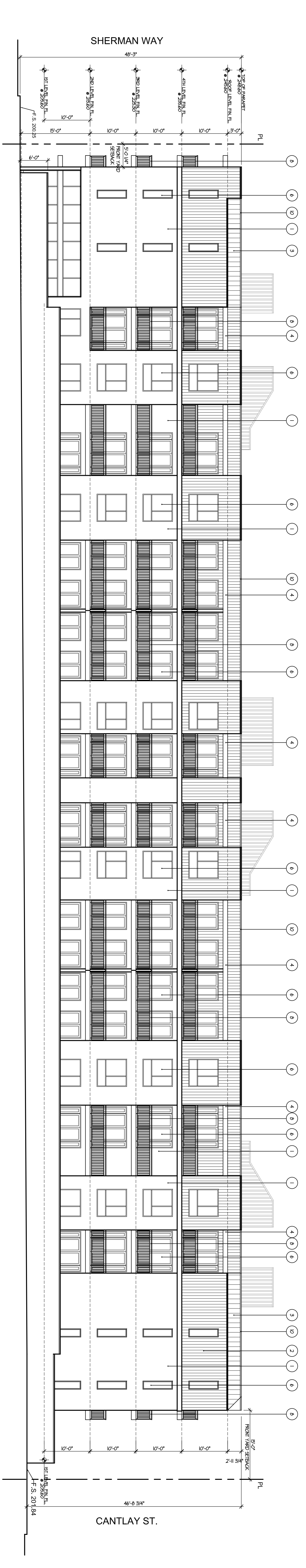
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- JOB NO.

● SHEET NO.
A-27



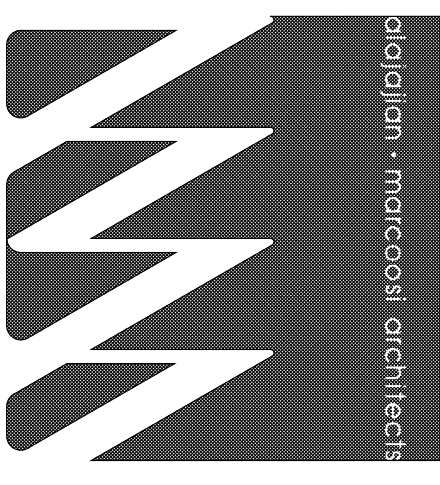
WEST ELEVATION
SCALE: 3/32" = 1'-0"

- EXTERIOR FINISH MATERIALS:**
1. TYPING STEEL, TYPING SHOWN FINISH, CHESTNUT FLASKER, VENEER PRODUCTS, INTERMEDIATE, COLOR SPECIFIED TO
 2. COMPOSITE INSIDE PANELS, TRUSSEL, WOODEN, LIGHT ASH FINISH OR EQUAL
 3. CORROSIATED METAL, SLOW BURNING, COLOR
 4. METAL PANEL, TRUSSEL AND TRUSSEL, METAL, OR EQUAL, BLACK, COLOR(TYP)
 5. DUAL GLAZED LOW E VISION GLASS, ANODIZED FRAME, CORIAN WALL ASSEMBLY(TYP)
 6. ANODIZED ALUMINUM DOOR AND WINDOW W/ DUAL GLAZED LOW E VISION GLASS.
1. 1/4" X ALUMINUM TRUSSEL, TRUSSEL, OR EQUAL(TYP)
 2. 42" HIGH STEEL SKULLING PAINTED DARK EDWARDS DECOR, ASH GRAY.
 3. 42" HIGH 1" SPOKE STAINLESS STEEL JOISTES, NUMBER
 4. SHEET METAL CORNER.



EAST ELEVATION
SCALE: 3/32" = 1'-0"

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Marcoosi
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Owner:
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Project Name:
**111 UNIT
MIXED-USE
PROJECT**
Project Address:
**1894-1895 W. SHERMAN WAY
LOS ANGELES, CA 91408**

ELEVATIONS

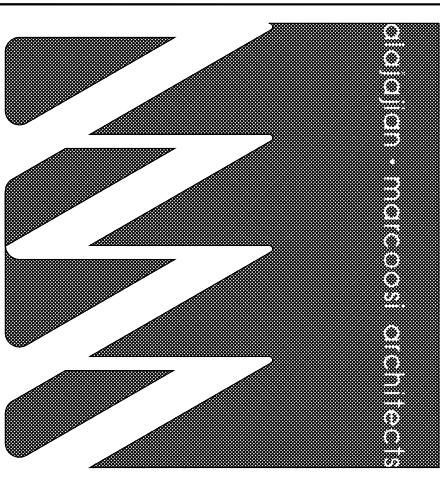
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KEYPLAN

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- REVISION
- REVISION
- DRAWN BY
- PRINT DATE 02.15.22
- JOB NO.
- SHEET NO.

A-3.1

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**Aldajjan
Marcocosi
Architects Inc.**

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Project Name:
**111 UNIT
MIXED-USE
PROJECT**

Project Address:
**18940-18955 W. SHERMAN WAY
LOS ANGELES, CA 91409**

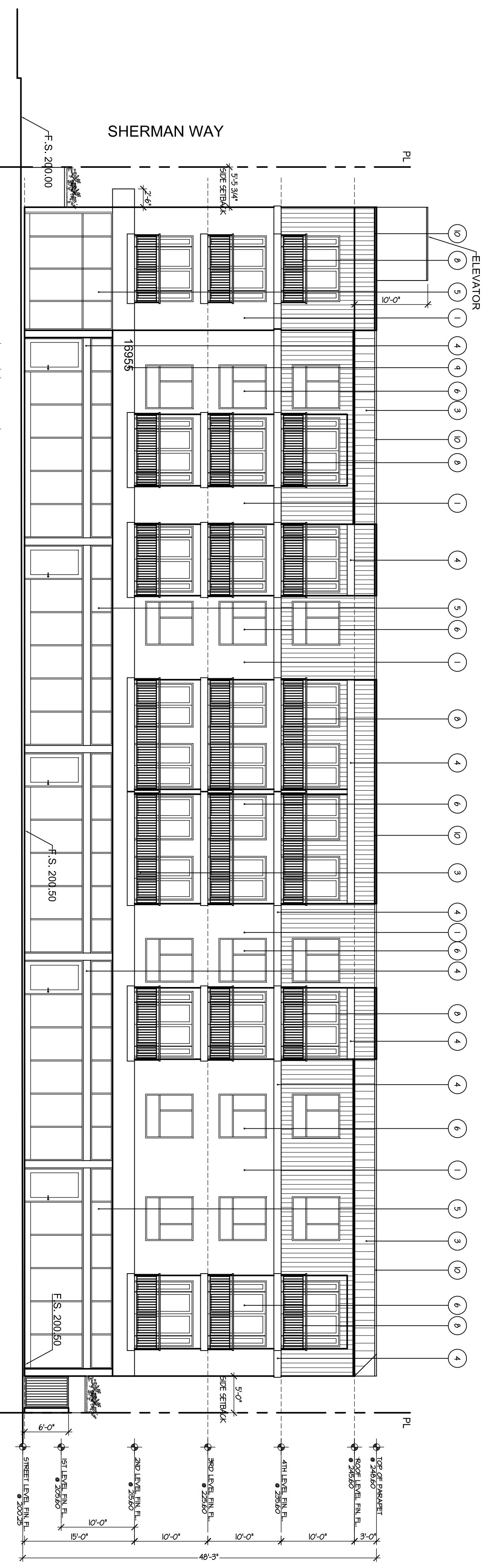
ELEVATIONS

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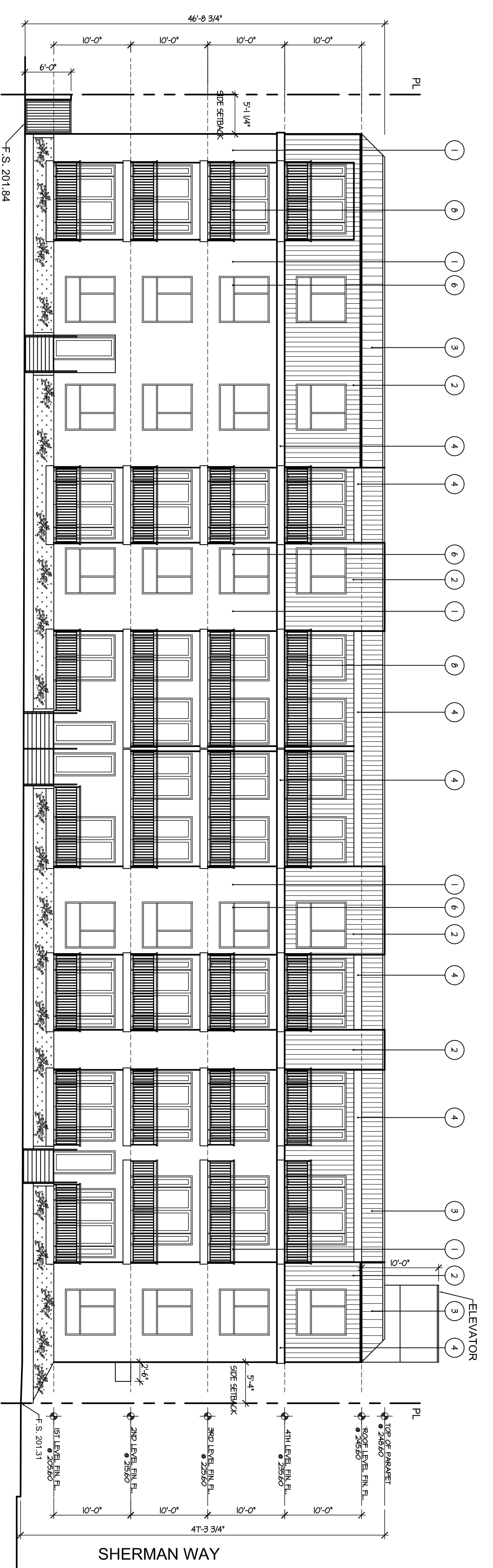
KEYPLAN

- APPROVED
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- REVISION
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- DRAWN BY
- PRINT DATE 02.15.22
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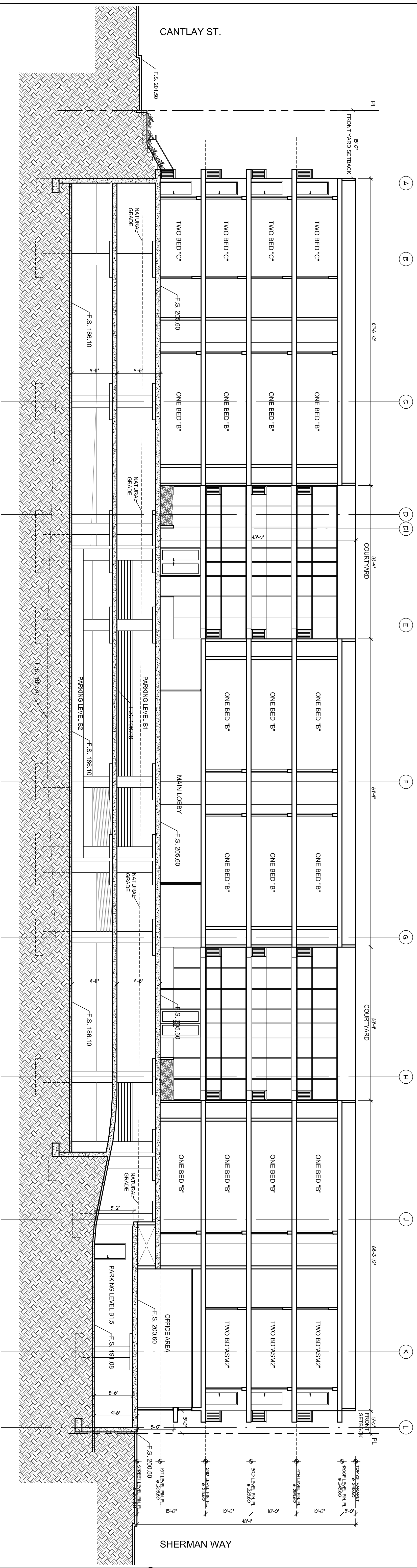
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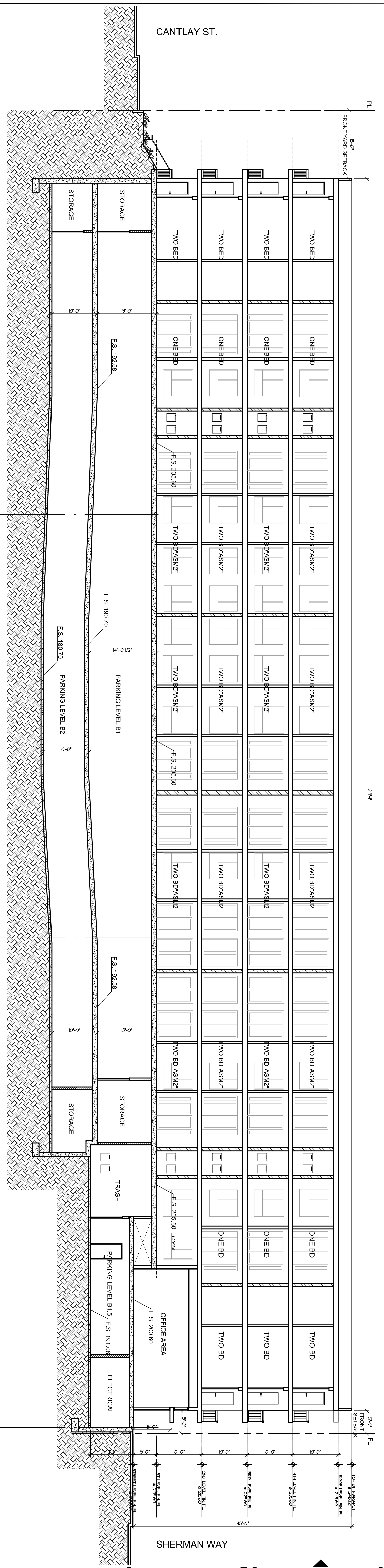
- EXTERIOR FINISH MATERIALS:**
1. TYPIC STEEL TRIM AND SPOUT FINISH CENTER FINISH, OTHER PRODUCTS INTERNATIONAL, COLOR BRON WHITE #15
 2. CORRUGATED METAL PANELS, TYPIC (MAY BE PAINT) OR EQUAL
 3. CORRUGATED METAL, SOME BRONZED COLOR
 4. METAL PANEL, TYPIC AND TYPICAL, VERTICAL OR EQUAL, BLACK COLOR(TYP)
 5. DIMENSIONAL FINISH (SEE SPECIFICATIONS)
 6. ANODIZED ALUMINUM DOOR AND WINDOW FRAME GLAZED LOW E VISION GLASS
 7. 1/2\"/>



NORTH ELEVATION
SCALE 3/32" = 1'-0"

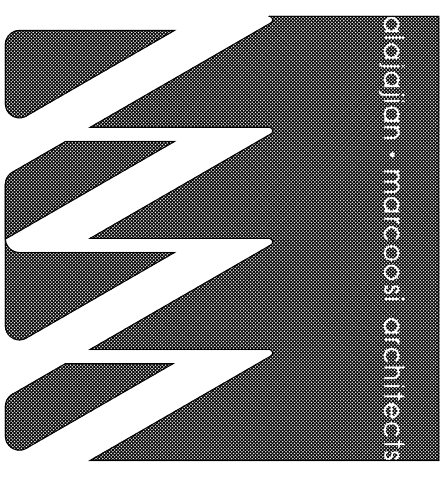


SECTION 1-1
SCALE: 3/32" = 1'-0"



SECTION 2-2
SCALE: 3/32" = 1'-0"

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LION SIGNATURE INC.

Owner Address:
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Project Number:
111 UNIT MIXED-USE PROJECT

Project Address:
18946-18955 W. SHERMAN WAY
LOS ANGELES, CA 91408

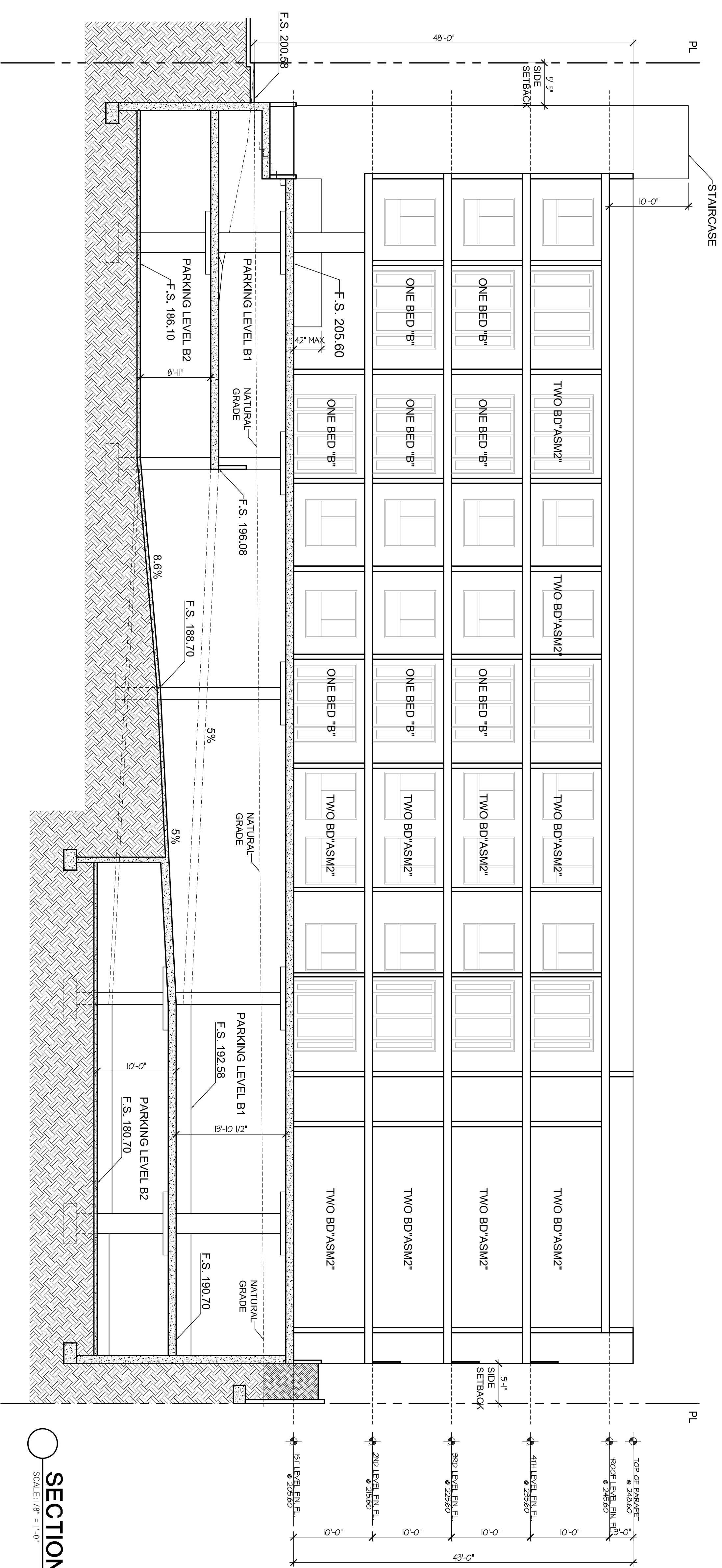
SECTIONS 1-1 AND 2-2

Scale: = 1/8" = 1'-0"

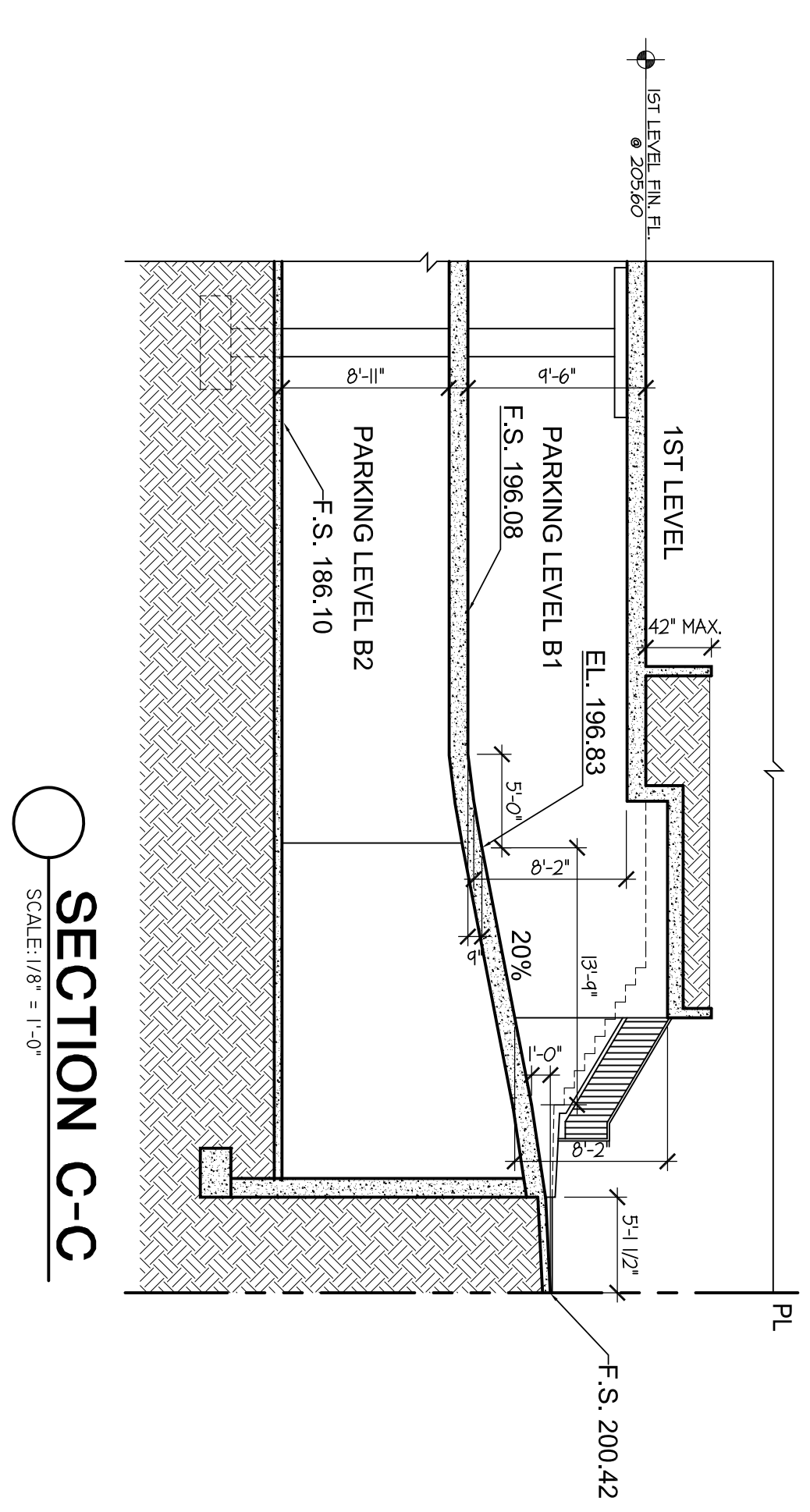
KEYPLAN

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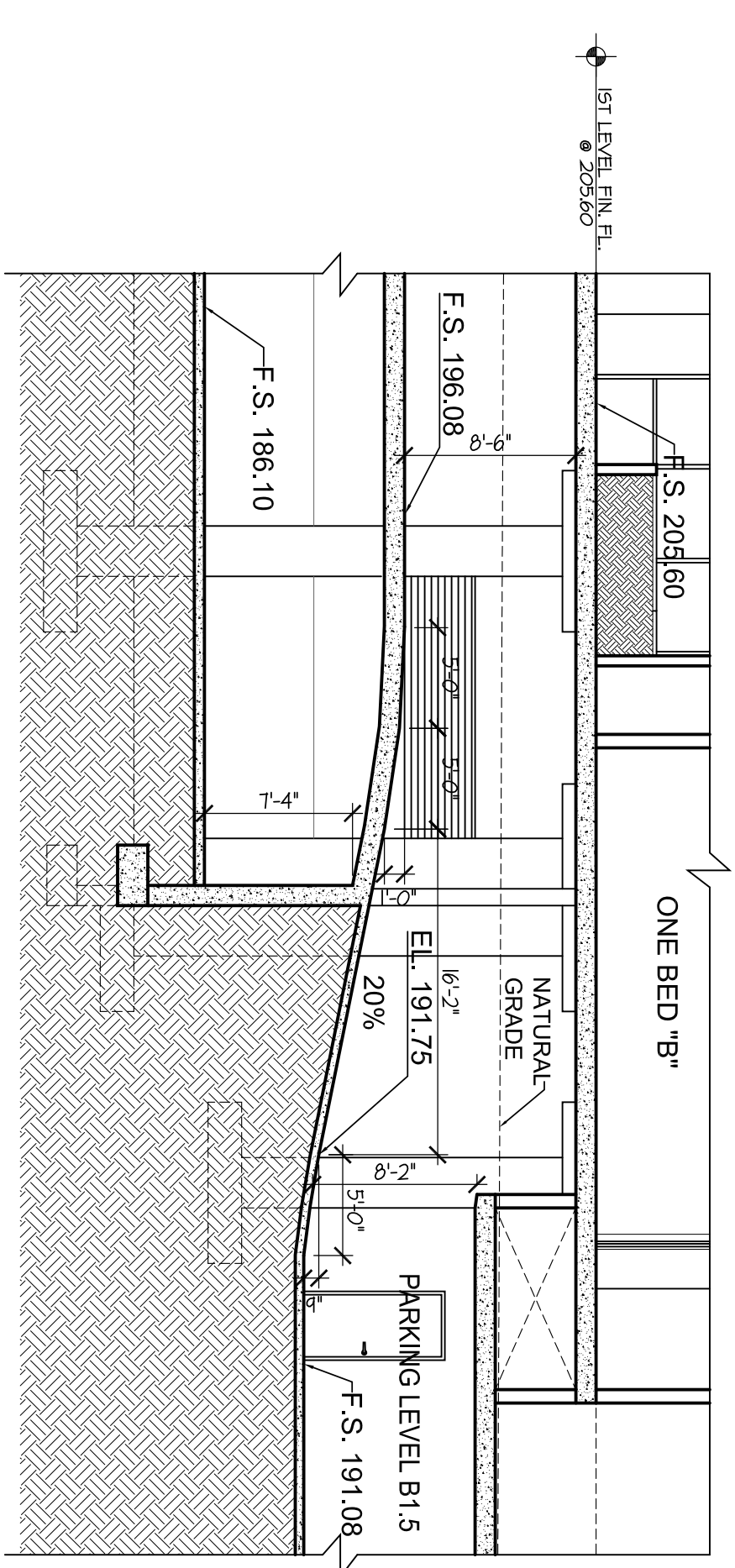
A-4.1



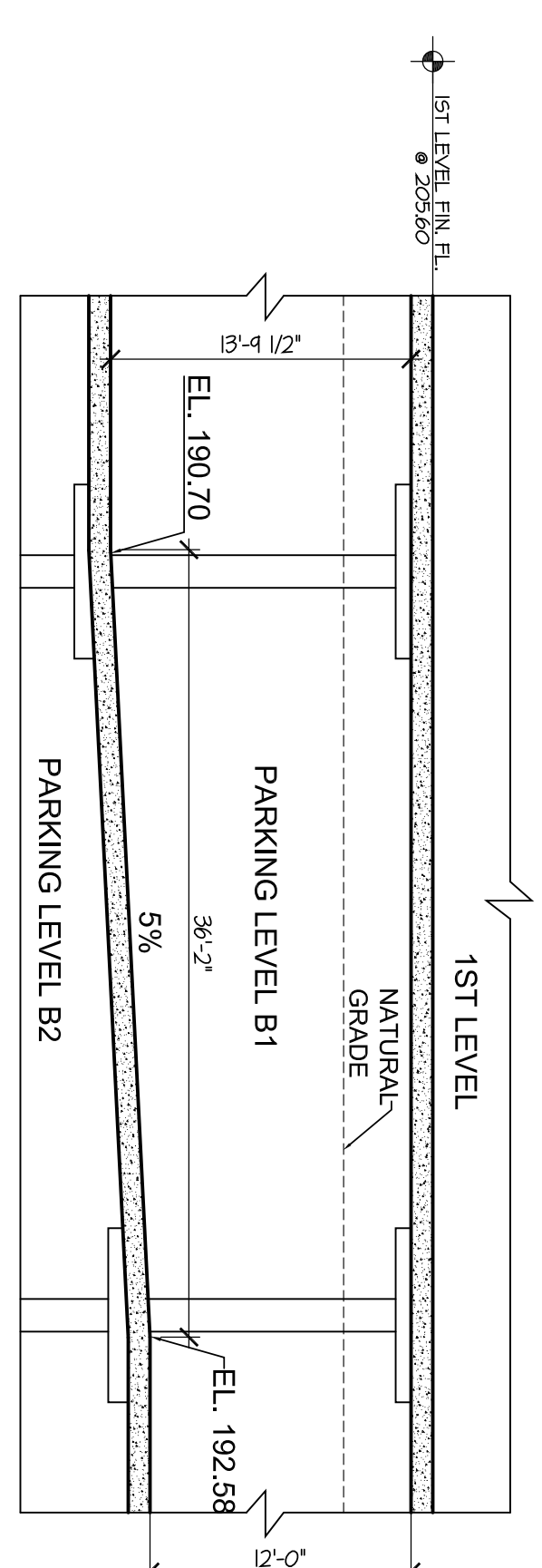
SECTION A-A
SCALE: 1/8" = 1'-0"



SECTION C-C
SCALE: 1/8" = 1'-0"

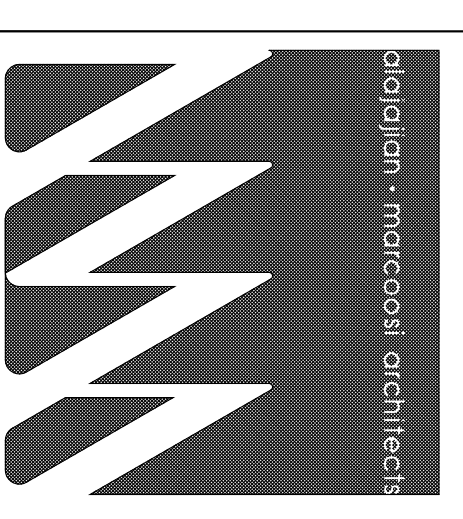


SECTION 1-1
SCALE: 1/8" = 1'-0"



SECTION 2-2
SCALE: 1/8" = 1'-0"

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LION SIGNATURE INC.

Owner Address:
100 Franklin Court
Glendale, CA 91205
Project Name:
111 UNIT MIXED-USE PROJECT
Project Address:
1894-1895 W. SHERMAN WAY
LOS ANGELES, CA 91408

SECTION A-A, C-C, 1-1, 2-2

Scale: 1/8" = 1'-0"

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A-4.2



Submital Sheet

CAPACITY	6 Bikes
MATERIALS	1.25" Pipe (106" OD)
FINISHES	<input type="checkbox"/> Galvanized - Galvanized steel (not dipped galvanized finish is our standard option). <input type="checkbox"/> Powder Coat - Powder coat finish assures a high level of adhesion and durability by following these steps: 1. Surface is sand blasted. 2. Primer is electrochemically applied. 3. Final thick TDC polyester powder coat. <input type="checkbox"/> Stainless - Stainless Steel 304 grade stainless steel material finished in either a light polished shine or a satin finish.
MOUNT OPTIONS	<input type="checkbox"/> Surface - Surface mount has the 3/4" x 3/8" threaded hole and pre-drilled foot. Standard four mount for the system. Temporary installation fasteners available upon request. <input type="checkbox"/> In-ground - In-ground mount is embedded into concrete base. Specify in-ground mount for the option.

6/2021



Installation Surface Mount

TOOLS NEEDED

1. High Measure
2. Marker or Pencil
3. Hammer
4. Drill (hammer drill recommended)
5. Level

RECOMMENDED BASE MATERIAL

Solid concrete is the best base material for installation. To ensure the proper anchors are drilled with your rock, use your (Duro Back) rebar/rod which anchor is designed to be drilled into concrete. If your base material is not concrete, it could be damaged by drilling.

- Place the rack in the desired location. Use a marker or pencil to outline the bases of the fasteners on the base material.
- Drill 3/8" diameter holes 3" deep into the surface. Make sure the holes are spaced evenly from the rack to the base material.
- Place the rack in the desired location. Use a marker or pencil to outline the bases of the fasteners on the base material.
- Thread nuts onto anchors, leaving approximately 1/4" of the anchor protruding, and tap into surface. Tighten nuts down to the desired side.

6/2021



Installation In-ground Mount

TOOLS NEEDED

1. Level
2. Concrete rebar/rod (3" diameter)
3. Shovel
4. Hammer
5. Materials to build base (see "Tip" at bottom of page)

TIP

Four concrete rebar/rod sleeves (3" diameter) in sand should be drilled in sand 3" deep into the surface. Fill sleeves with sand to keep in place and prevent it from being pulled out.

- Place concrete rebar/rod sleeves (3" diameter) in sand 3" deep into the surface. Fill sleeves with sand to keep in place and prevent it from being pulled out.
- Four concrete rebar/rod sleeves (3" diameter) in sand should be drilled in sand 3" deep into the surface. Fill sleeves with sand to keep in place and prevent it from being pulled out.
- After appropriate cure time, dig out sand from sleeves and insert racks, making sure they are level and at the appropriate height. Use a shovel to dig out sand from sleeves and level to top.

TIP

After every way to brace the rack while the ground sets is to bolt two legs together on one end and clamp them onto the rack like a clothes pin.

6/2021



Installation In-ground Mount: Existing Concrete

TOOLS NEEDED

1. Level
2. Concrete rebar/rod (3" diameter)
3. Shovel
4. Hammer
5. Materials to build base (see "Tip" at bottom of page)

TIP

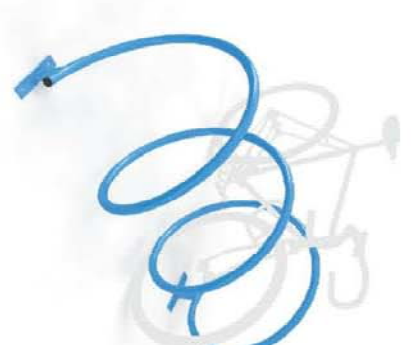
Fill holes with Super Poly-Flo or epoxy 2 part.

- Core holes to last thru 3" diameter (if recommended) and to last thru 6" deep into sidewalk.
- Fill holes with Super Poly-Flo or epoxy 2 part.
- Place rack into holes, making sure the rack is level (and the ground is level) and the ground sets is to bolt two legs together on one end and clamp them onto the rack like a clothes pin.

TIP

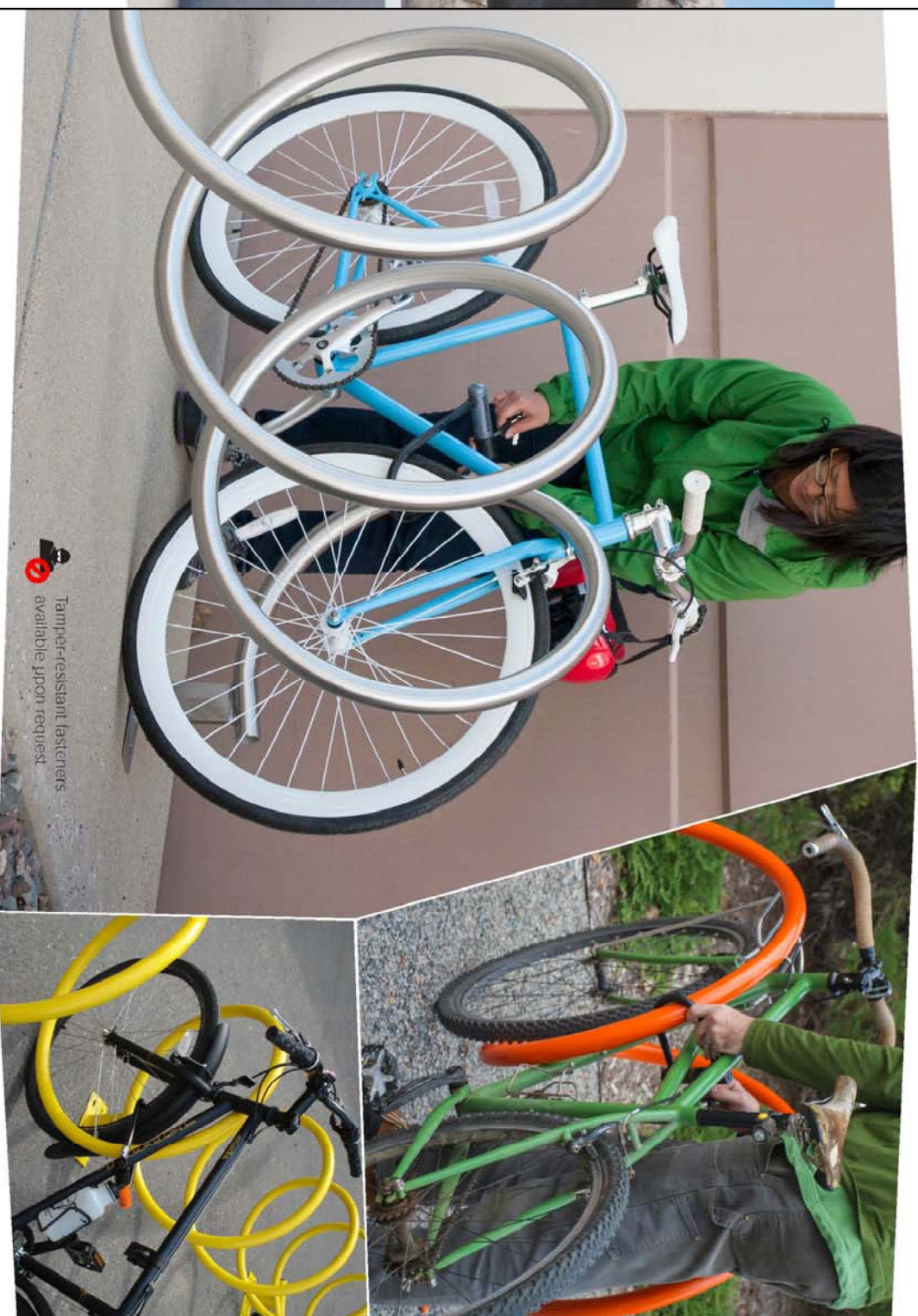
After every way to brace the rack while the ground sets is to bolt two legs together on one end and clamp them onto the rack like a clothes pin.

6/2021



The Helix Rack is an attractive, double-looped, space-efficient bike rack. For a starting value effect, several Helix Racks can be placed together to create the illusion of a continuous spiral. The curve and grip of the rack also makes it nearly impossible for thieves to cut wire's pipe cap.

6/2021



FINISH OPTIONS

Galvanized	Stainless	Powder Coat

6/2021

SHORT TERM BICYCLE PARKING

aldajijan - marcocosi architects

ALDAIJIAN MARCOOSI ARCHITECTS INC.

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Glendale, CA 91205

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111 UNIT MIXED-USE PROJECT

Project Address:
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SHORT TERM BICYCLE PARKING DETAILS

Scale: 1/4"=1'-0"

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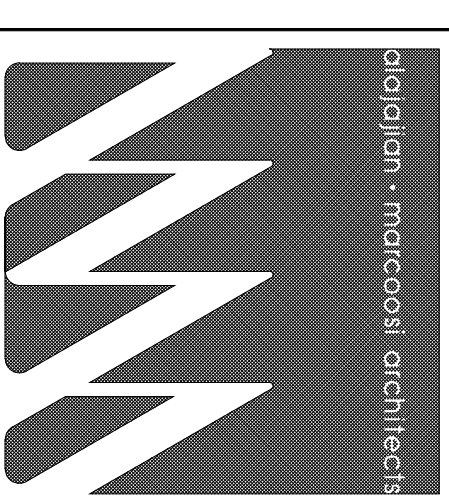
A-6.2



VIEW FROM SOUTH-WEST CORNER

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MIXED-USE
PROJECT**

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PERSPECTIVES

Scale: " = 1'-0"

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A-8.1



VIEW FROM NORTH-WEST CORNER

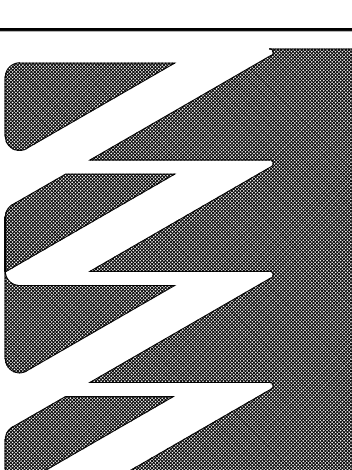
SCALE:



VIEW FROM NORTH
SCALE:

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PERSPECTIVES

Scale: " = 1'-0"

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VIEW FROM SOUTH
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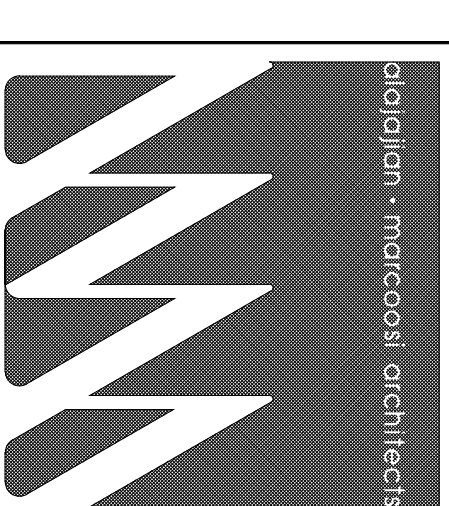


BIRD'S EYE VIEW
SCALE:



BIRD'S EYE VIEW
SCALE:

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PERSPECTIVES

Scale: "1=10"

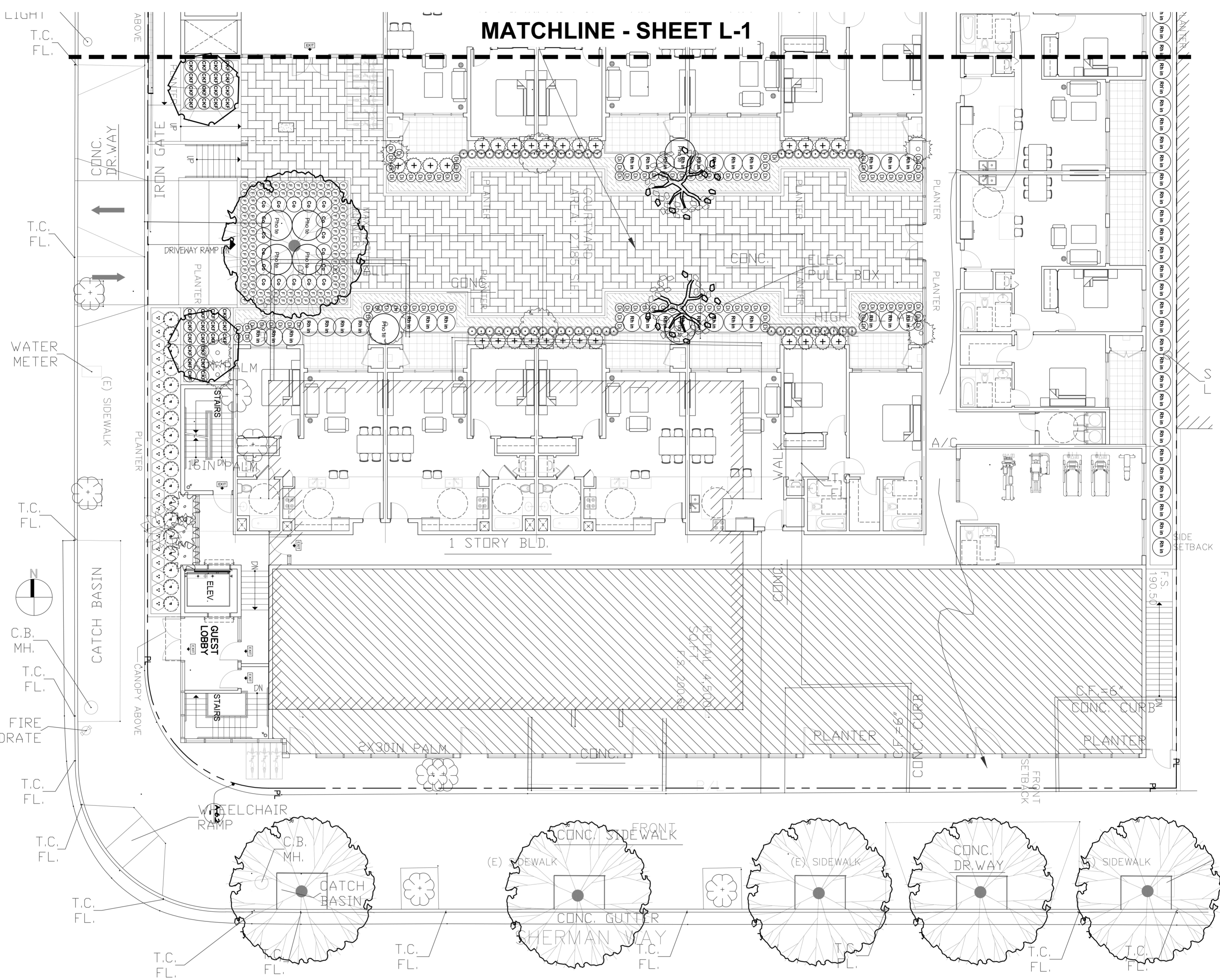
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NOTE: ALL PLANTERS NOT OVER NATURAL GRADE REQUIRE SPECIAL STRUCTURAL CALCULATIONS BY OTHERS.

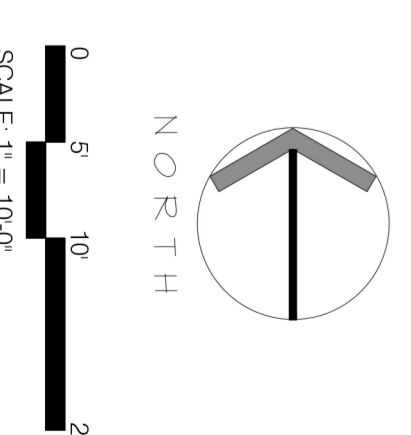


SEE SHEET L-3 FOR PLANTING NOTES AND LEGENDS

SITE PLAN - PLANTING PLAN

SCALE : 1"=10'-0"

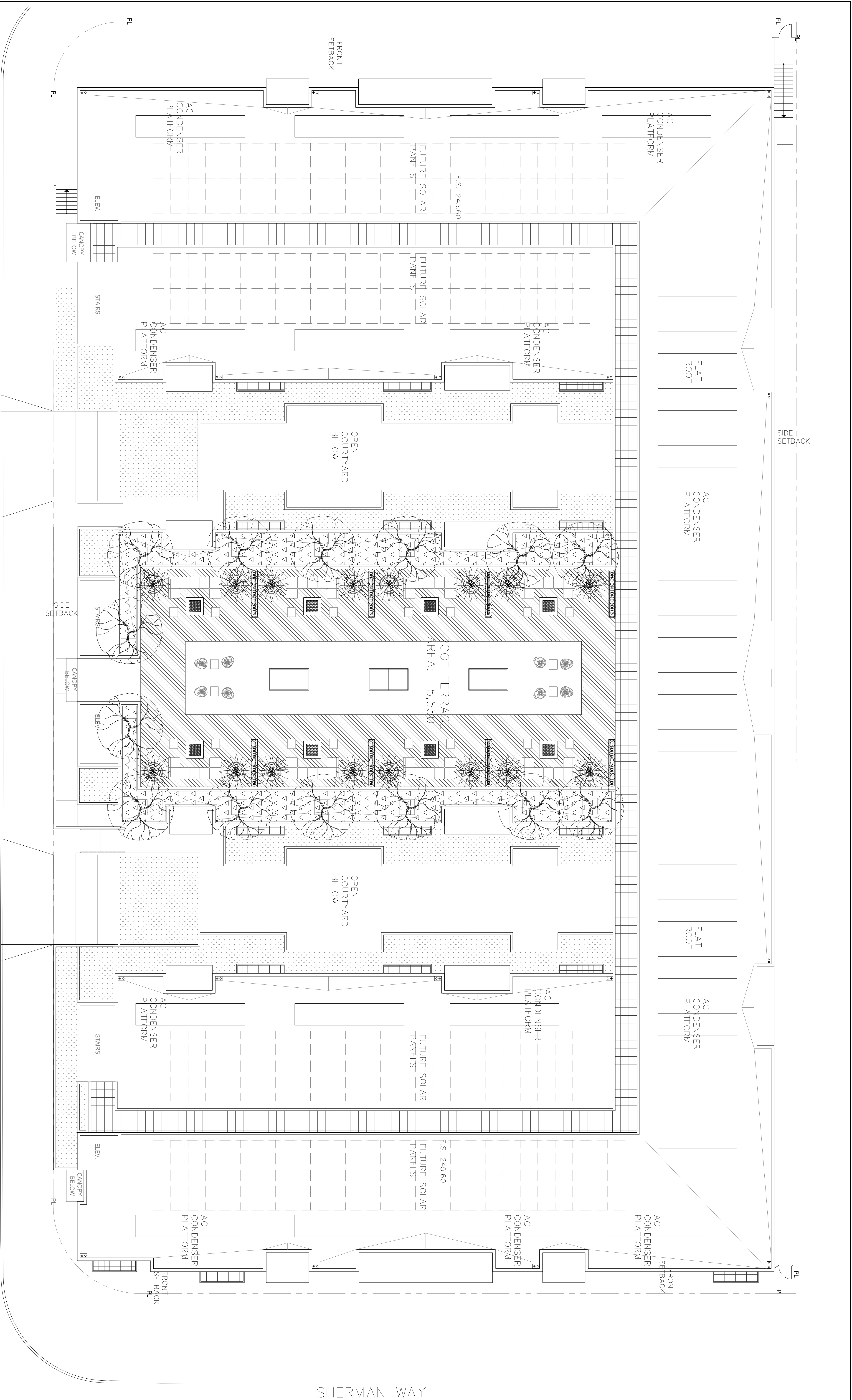
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 PROPOSED: NEW CONSTRUCTION OF 4-STORY MIXED-USE PROJECT WITH TWO LEVELS OF SUBTERRANEAN PARKING GARAGE.
 DEMOLITION OF THE EXISTING 4,212 SF BUILDING UNDER SEPARATE PERMIT
 ADDRESS: 16949-19555 W. SHERMAN WAY, LOS ANGELES, CA 91406
 LOT AREA: 49,333.3 S.F.



DRAWING TITLE	PROJECT	OWNER	REVISION
SITE PLAN - PLANTING PLAN	16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406	100 FRANKLIN COURT GLENDALE, CA 91205	BY

Ryan Diekmann
 11292022
 1"=10'-0"
 S.A.
 22-037
L-2
 SHEET:
 2 OF 13





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NOTE: ALL PLANTERS NOT OVER NATURAL GRADE REQUIRE SPECIAL STRUCTURAL CALCULATIONS BY OTHERS.

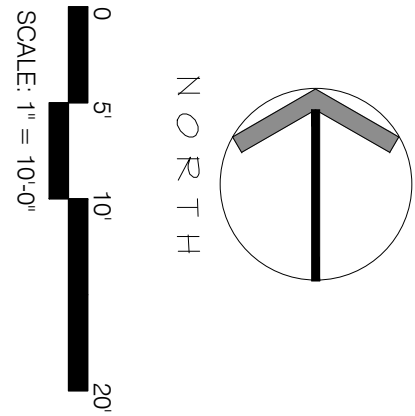
ROOF PLAN - PLANTING PLAN


SCALE : 1"=10'-0"

SEE SHEET L-4 FOR PLANTING NOTES AND LEGENDS

PLANNING AND ZONING INFORMATION:

PROPOSED: NEW CONSTRUCTION OF 4 STORY MIXED USE PROJECT WITH TWO LEVELS OF SUBTERRANEAN PARKING GARAGE
 DEMOLITION OF THE EXISTING 4,212 SF BUILDING UNDER SEPARATE PERMIT
 ADDRESS: 16949-19555 W. SHERMAN WAY, LOS ANGELES, CA 91408
 LOT AREA: 49,333.3 SF

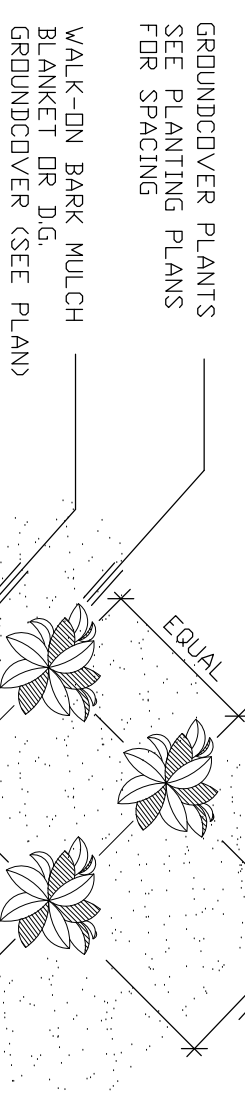
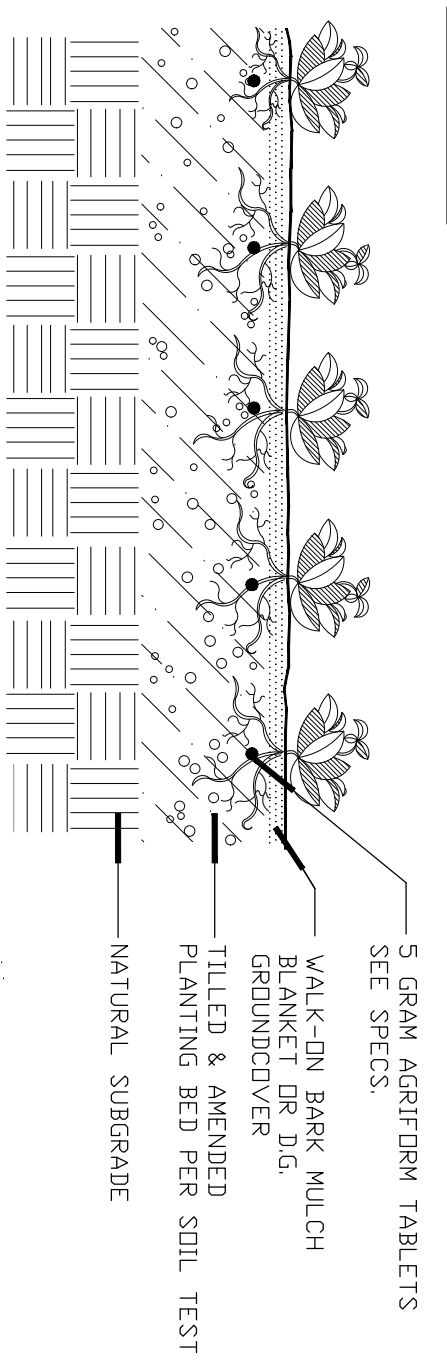


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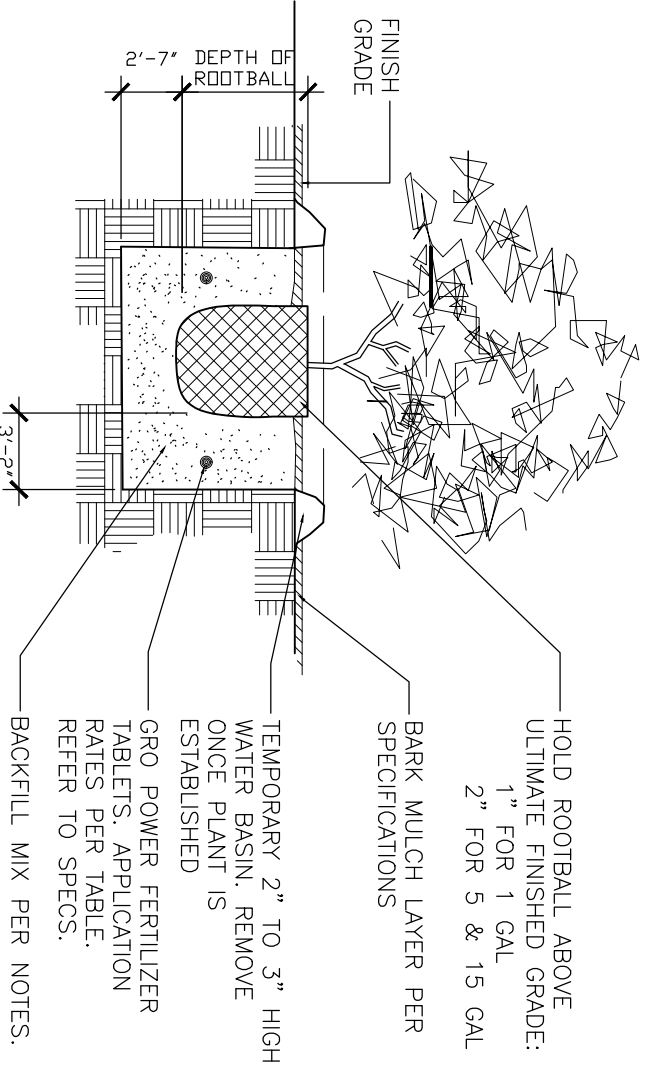


DATE:	11/28/2022
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APPROVED:	
JOB:	22-037
SHEET:	L-3
	3 OF 13

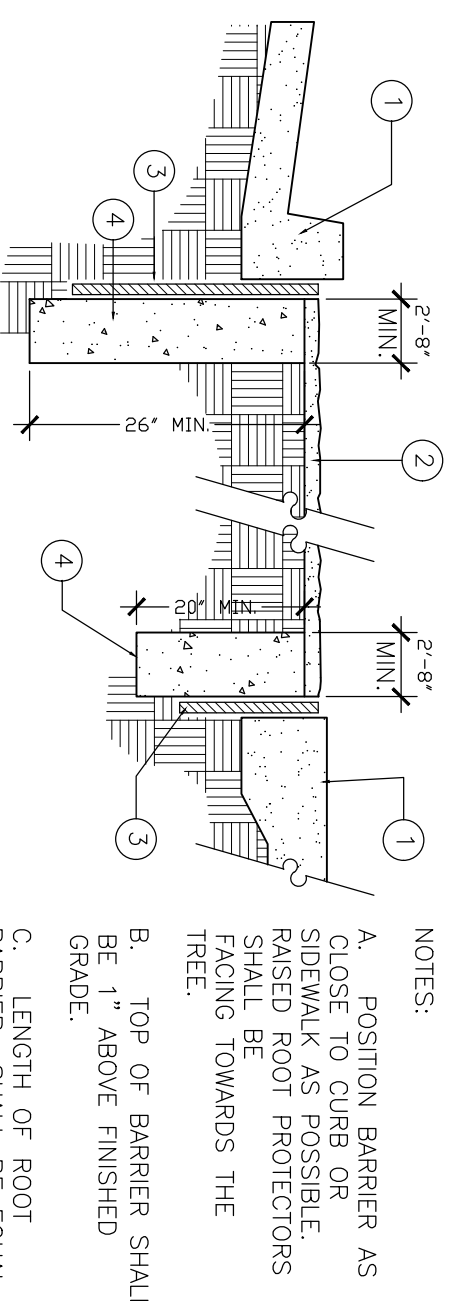
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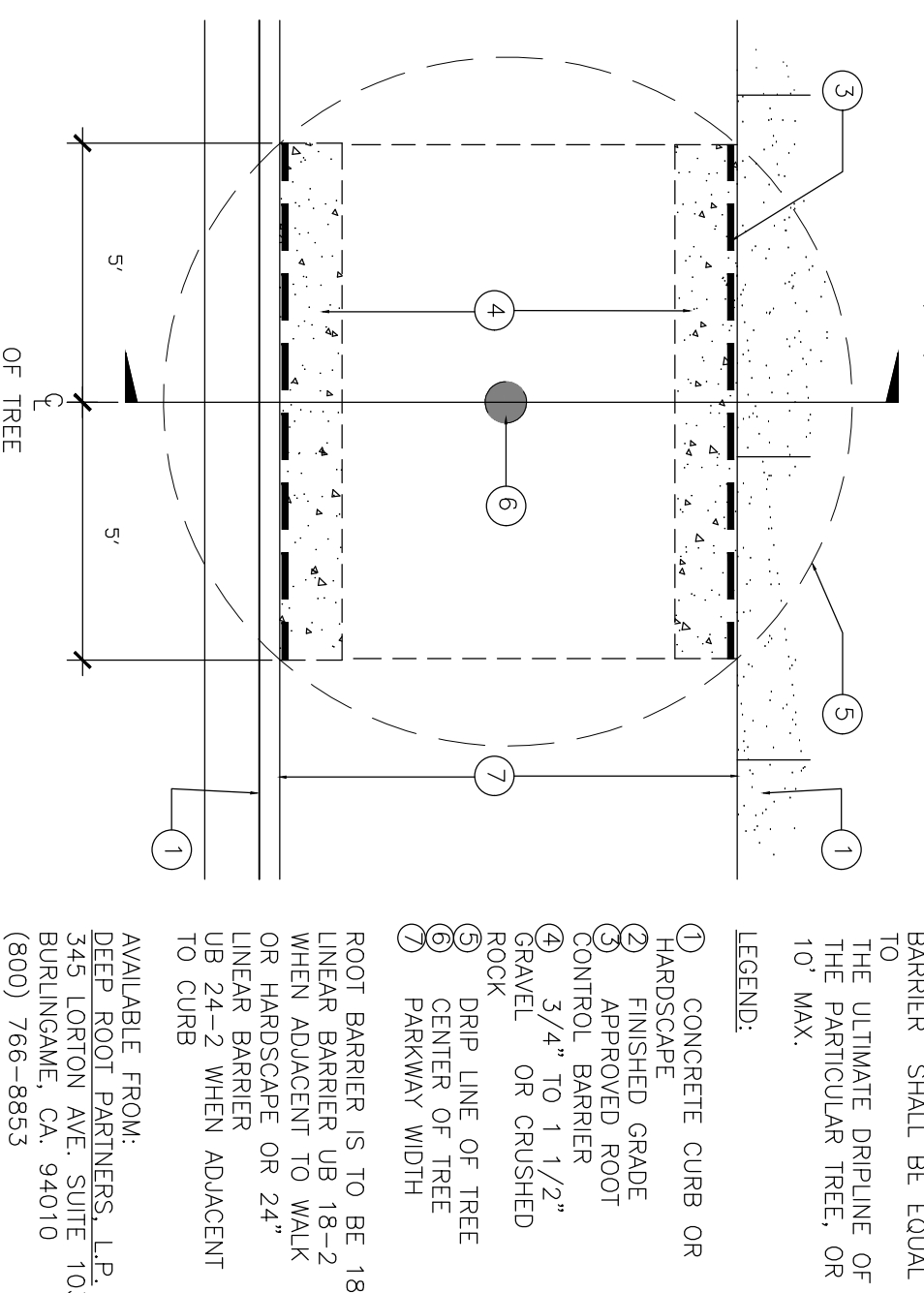
1 GROUND COVER PLANTING



2 SHRUB PLANTING DETAIL



3 ROOT BARRIER



PLANTING INSTALLATION NOTE

ADJUSTMENTS TO PLANT AVAILABILITY MAY BE REQUIRED IN THE FIELD DURING INSTALLATION BY THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE TO ADDRESS SITE SPECIFIC SOIL OR ORIENTATIONS OR MICROCLIMATIC CONDITIONS NOT REFLECTED IN THESE TYPICAL PLANS.

PLANTING NOTES

WEED CONTROL

WHERE PERENNIAL WEEDS EXIST ON SITE AT THE BEGINNING OF WORK, CLEAN AND REMOVE THESE EXISTING WEEDS BY MOWING OR GRUBBING OFF ALL PLANT MATERIAL. UPON COMPLETION OF SOIL PREPARATION AND PLANTING OF ALL SPECIEM TREES, BRUSH WEED CONTROL SHALL BE INSTALLED PER SPECIFICATIONS. WATER ALL AREAS FOUR (4) TIMES DAILY FOR FOUR (4) CONSECUTIVE DAYS UNTIL WEED SEEDS HAVE GERMINATED. CEASE HERBICIDE TO BEADY-GIT GERMINATED WEEDS. THE WEEDS DIE WITHOUT IRRIGATION FOR A MINIMUM DEPTH OF 14 INCH BELOW THE SURFACE OF THE SOIL. IF STRIBBERS AND REPEATED THE TYPE OF WEEDS THAT TENDS SHOULD BE IDENTIFIED AND CORRELATED WITH AN APPROVED LICENSED PEST CONTROL ADVISOR TO ENSURE COMPATIBILITY WITH CHEMICAL APPLICATION. DO NOT USE MATERIAL OR METHOD THAT WOULD ADVERSELY AFFECT NEW PLANTINGS. SOIL STABILIZATION ON TYPICAL SITES.

SOIL TEST: SOIL HAS BEEN IMPORTED TO THE SITE AND REQUIRED GRADING COMPLETED. THE SOIL TEST SHALL BE PERFORMED BY AN APPROVED LABORATORY. THE TEST SHALL BE PERFORMED BY AN APPROVED AGRICULTURAL LABORATORY MEMBER TO THE CONTRACTING OFFICER. THE CONTRACTING OFFICER SHALL MAKE SURE THE CONTRACTING OFFICER MAKE SPECIES SUBSTITUTIONS TO THE PLANT LIST.

SOIL PREPARATION

MACHINE ROTOTILL THE FOLLOWING AMENDMENTS INTO THE SOIL. AT RATES INDICATED PER CONTRACTORS SOIL REPORT. 1. ACTUAL RATES TO CORRESPOND TO 4CU YDS. NITROGEN STABILIZED SAWDUST 125 LBS. STANDARD FERTILIZER

DEEP ROOT BARBIERS: WALLS W/OUT BUILDINGS SHALL BE PLANTED WITH AN APPROXIMATE SIZED LINEAR ROOT BARRIER (SEE DETAIL ON THIS SHEET).

SHRUB PLANTING NOTES

*HOLD ALL SHRUBS A MIN. OF 30\"/>

NOTES:

1. A minimum of 3-inch layer of cedar bark mulch shall be applied on all exposed soil surfaces of planting areas except turf areas, creeping or rooting groundcovers, or direct seeding applications where mulch is contraindicated.
2. All Trees to be planted with commercial root barriers.
3. Use class I or class II Compost as a soil amendment in all landscaped areas.
4. For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.
5. Recirculating water shall be used for water features.

COMPLIANCE NOTE: I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLANS.

11-28-22

SIGNATURE

RB

PLANT LEGEND

SYML	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	PF.	WUCOLS SIZE AT MATURITY	YEARS	REMARKS
TREES								
	Aloe 'Hercules'	Hercules Aloe	16	15gal	L	40x20	8	
	Cercis occidentalis	Western Redbud	6	24"Box	L	20'x15'	8	
	Dracaena draco	Dragon Tree	1	24"Box	L	25'x25'	8	
	Handicactus impatiiginosus	Pink Trumpet Tree	2	48" Box	M	50'x40'	20	
	Lagerstroemia indica x fauriei 'Natchez'	Natchez Crape Myrtle	4	36"Box	M	25'x15'	2	White Flowers
	Olea europaea 'Wilsonii'	Wilsonii Olive Tree	14	24"Box	M	25'x25'	15	Fruitless
	Pinus ularifera	Afghan Pine	4	24" Box	L	30'x25'	20	
	Streliczia niccolai	Giant Bird-of-Paradise	6	24"Box	L	30'x15'	10	
	Street Tree within Public Right-of-Way Protected in Place							

PLANT LEGEND

SYML	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	PF.	WUCOLS SIZE AT MATURITY	YEARS	REMARKS
SHRUBS								
	Aeonium 'Sunburst'	Sunburst Aeonium	32	1gal	M	15'x15'	3	
	Carex Calamagrostis x acutiflora 'Karl Foerster'	Foerster's Feather Reed Grass	114	5gal	M	2'x2'	3	6' high bloom stalks
	Cordyline allamanda 'Cape Rush'	Cape Rush	52	15gal	L	3'x3'	2	
	Cordyline 'Spilcepink' PP#19213	Electric Pink Cordyline	36	5gal	M	4'x4'	3	
	Dianella revivida 'Little Rev'	Little Rev Flax Lily	258	5gal	L	3'x2'	3	
	Dianella x 'Nola Alba'	Katrina African Iris	28	5gal	L	3'x3'	3	
	Dodonaea viscosa 'Purpurea'	Purple Hopseed Bush	12	15gal	M	10'x5'	4	
	Festuca Siskiyou Blue'	Siskiyou Blue Fescue	240	1gal	L	2'x2'	1	
	Liriodie muscari 'Silvery Sunproof'	Silvery Sunproof Lilyturf	101	5gal	M	18'x18'	5	
	Liriodie hybrida 'Lombon' PP#23034	Lime Tuff Malt Rush	34	1gal	L	3'x3'	2	
	Mulienbergia capillaris 'Irvine'	Pumetastic Pink Mulhy Grass	64	5gal	M	3'x3'	10	
	Phornium 'Pink Stripe'	Pink Stripe New Zealand Flax	25	15gal	M	5'x6'	2	
	Rhapitopsis indica 'Conor'	Eleanor Taber™ Indian Hawthorn	145	5gal	M	4'x3'	6	
	Yucca rostrata	Big Bend Yucca	3	15gal	L	20'x8'	6	
GROUNDCOVER								
	Tradescantia pallida 'Purpureum'	Purple Spiderwort	216	1gal@	L	18'x3'	1	
	Trachelospermum asiaticum	Asian Jasmine	24	1gal@	VL	3'x8'	1	
	Agrostis pallens	California Bentgrass	1,019 s.f.	L	L			
	Pennisetum x 'Fairy Tales'	Evergreen Fountain Grass	141	1gal@	L	5'x3'	1	

LANDSCAPE CALCULATION

REQUIRED	PROVIDED
PROJECT SITE: 49,333.3 SQ.FT.	24" Box trees: 37x1=37
	Use of Class I or Class II compost as a soil amendment in all landscaped areas: 3
POINTS REQUIRED: 30	TOTAL POINTS: 40

NOTE: ALL WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY.

DRAWING TITLE
PLANTING LEGENDS, NOTES & DETAILS

PROJECT
16949-19555 W. SHERMAN WAY
LOS ANGELES, CA 91406

OWNER
100 FRANKLIN COURT
GLENDALE, CA 91205

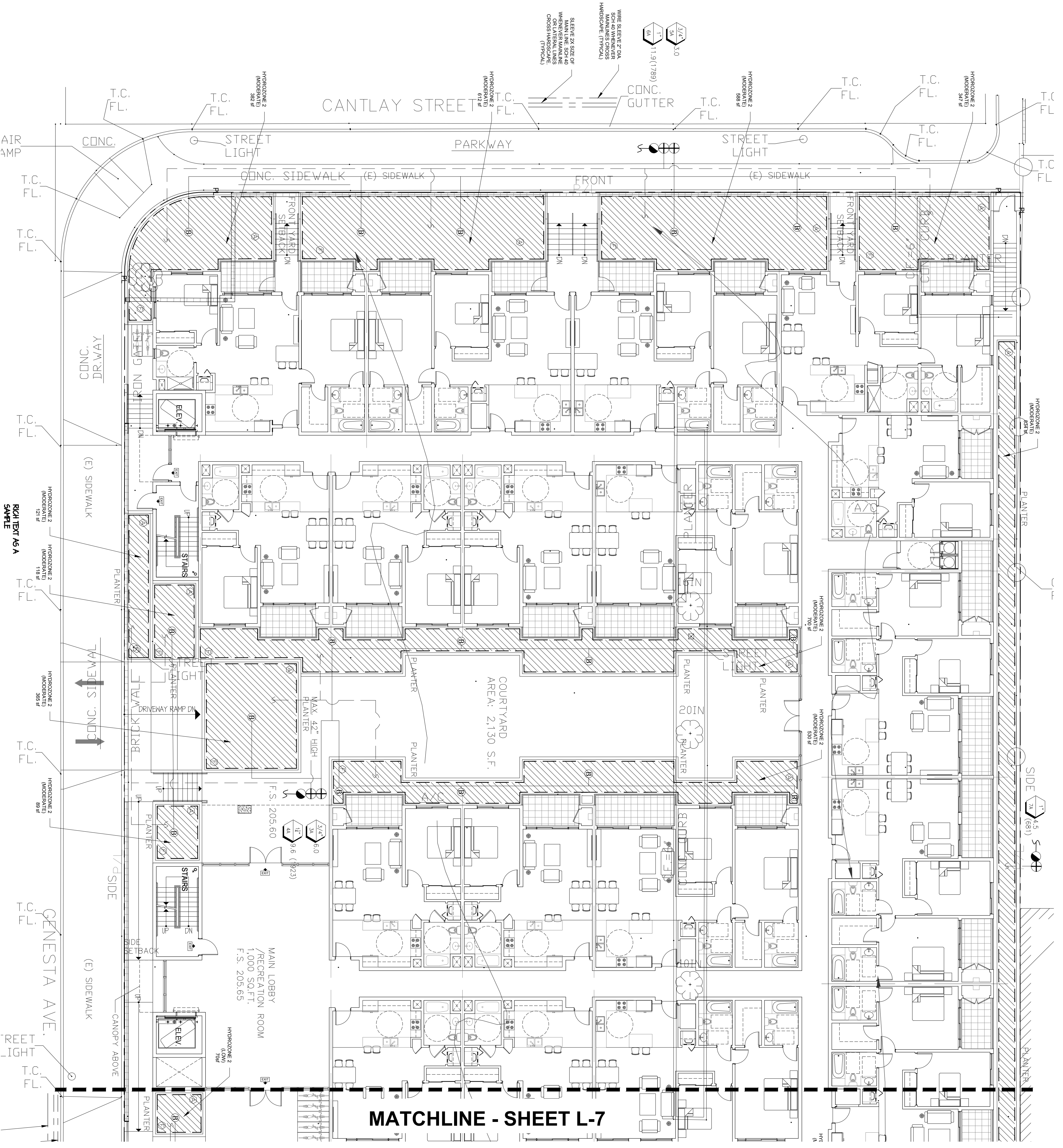
DATE: 11/28/2022
SCALE: 1"=10'-0"
DRAWN: SA
APPROVED:

JOB: 22-007
SHEET: L-4
4 OF 13

REGISTERED LANDSCAPE ARCHITECT
STATE OF CALIFORNIA
No. 11286
11/28/2022

SHERMAN INC.
10847 Westcott Ave
Suite 100
Glendale, CA 91205
ShermanInc@gmail.com

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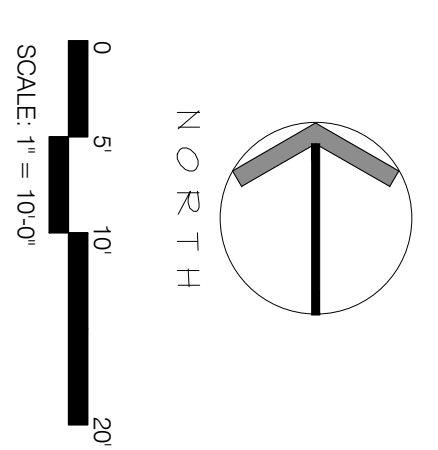
NOTE: ALL PLANTERS NOT OVER NATURAL GRADE REQUIRE SPECIAL STRUCTURAL CALCULATIONS BY OTHERS.

SITE PLAN - IRRIGATION PLAN

SCALE: 1"=10'-0"

SEE SHEET L-5 FOR IRRIGATION NOTES AND LEGENDS
SEE SHEETS L-9-L-10 FOR IRRIGATION DETAILS

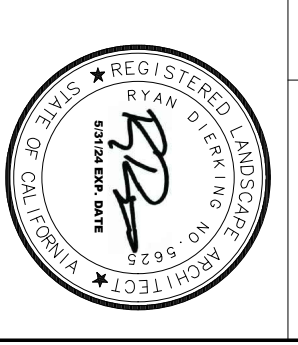
PLANNING AND ZONING INFORMATION:
PROPOSED: NEW CONSTRUCTION OF 4 STORY MIXED USE PROJECT WITH TWO LEVELS OF SUBTERRANEAN PARKING GARAGE
DEMOLITION OF THE EXISTING 4,212 SF BUILDING UNDER SEPARATE PERMIT
ADDRESS: 16949-19555 W. SHERMAN WAY, LOS ANGELES, CA 91408
LOT AREA: 49,333 S.F.



REVISION	BY	DATE	DESCRIPTION

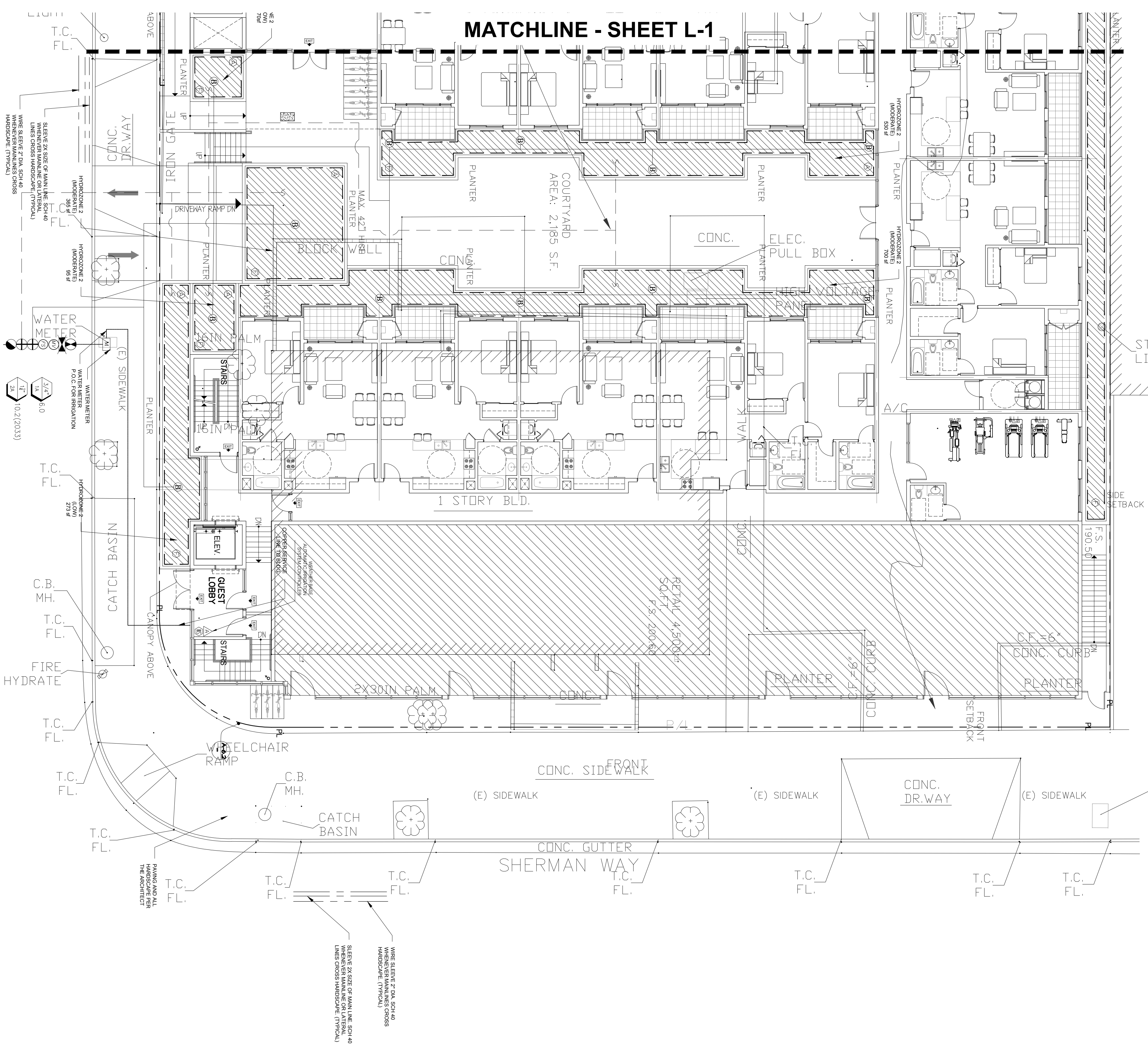
OWNER	100 Franklin Court Glendale, CA 91205
PROJECT	16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406
DRAWING TITLE	SITE PLAN - IRRIGATION PLAN

DATE:	11/28/2022
SCALE:	1"=10'-0"
DRAWN:	SA
APPROVED:	
JOB:	22-037
SHEET:	L-6
	6 OF 13



NOTE: ALL DRAINS, AIR GAPS, WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY. DO NOT ALTER OR PUNCTURE ANY WATER PROOFING.

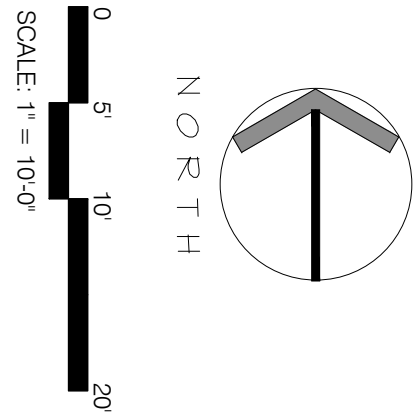
NOTE: ALL PLANTERS NOT OVER NATURAL GRADE REQUIRE SPECIAL STRUCTURAL CALCULATIONS BY OTHERS.



SITE PLAN - IRRIGATION PLAN
 SCALE : 1"=10'-0"
 SEE SHEET L-5 FOR IRRIGATION NOTES AND LEGENDS
 SEE SHEETS L-9-L-10 FOR IRRIGATION DETAILS

PLANNING AND ZONING INFORMATION:
 PROPOSED: NEW CONSTRUCTION OF 4 STORY MIXED USE PROJECT WITH TWO LEVELS OF SUBTERRANEAN PARKING GARAGE
 DEMOLITION OF THE EXISTING 4,212 SF BUILDING UNDER SEPARATE PERMIT
 ADDRESS: 16949-19555 W. SHERMAN WAY, LOS ANGELES, CA 91408
 LOT AREA: 49,333 S.F.

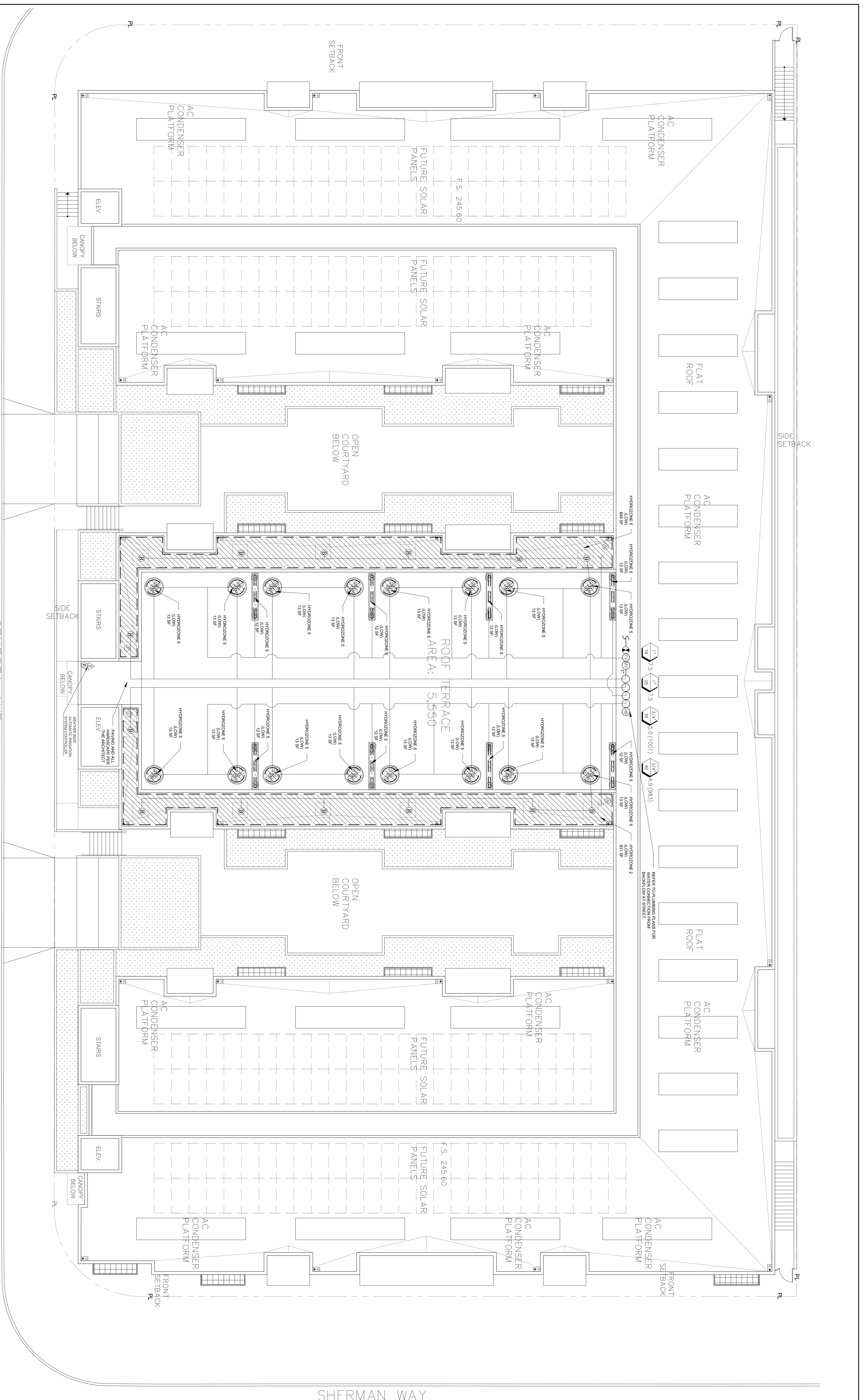
POINT OF CONNECTION (FIRST FLOOR)
 CONNECTION TO EXISTING WITH ALUMINUM AND STEEL. PLANT FOR LOCATION OF POINT OF CONNECTION SHALL BE VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT.



	DRAWING TITLE	PROJECT	OWNER
	SITE PLAN - IRRIGATION PLAN	16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406	100 FRANKLIN COURT GLENDALE, CA 91205
DATE:	11/28/2022		
SCALE:	1"=10'-0"		
DRAWN:	SA		
APPROVED:			
JOB:	22-037		
SHEET:	L-7		
	7 OF 13		



10947 Visbeck Ave
 Sherman Oaks, CA 91403
 SamirShah1@gmail.com
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 THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE POINT OF CONNECTION WITH THE ARCHITECT.



NOTE: ALL DRAINS, AIR GAPS, WATER PROOFING AND PLANTER SPECIFICATIONS BY OTHERS. THESE PLANS ARE FOR PLANTING AND IRRIGATION ONLY. DO NOT ALTER OR PUNCTURE ANY WATER PROOFING.

POINT OF CONNECTION (ROOF PLAN)
 FROM SHEET 801, SECTION OF
 THE CONSTRUCTION PERMIT FOR THE
 PROJECT AT 16949-19555 W. SHERMAN WAY
 LOS ANGELES, CA 91406
 THE CONSTRUCTION PERMIT IS VALID FOR THE
 PERIOD OF 180 DAYS FROM THE DATE OF
 ISSUANCE. ANY CHANGES TO THE
 PERMIT MUST BE APPROVED BY THE
 APPLICABLE AGENCIES.
 SCALE: 1"=10'-0"
 DATE: 11/28/2022

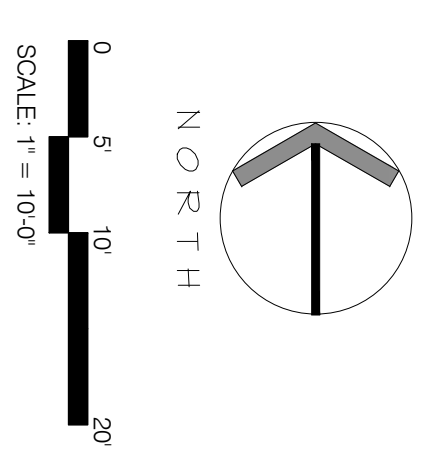
NOTE: ALL PLANTERS NOT OVER
 NATURAL GRADE REQUIRE
 SPECIAL STRUCTURAL
 CALCULATIONS BY OTHERS.

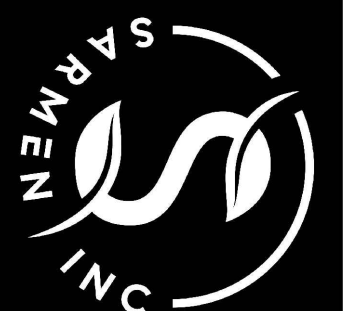

ROOF PLAN - IRRIGATION PLAN

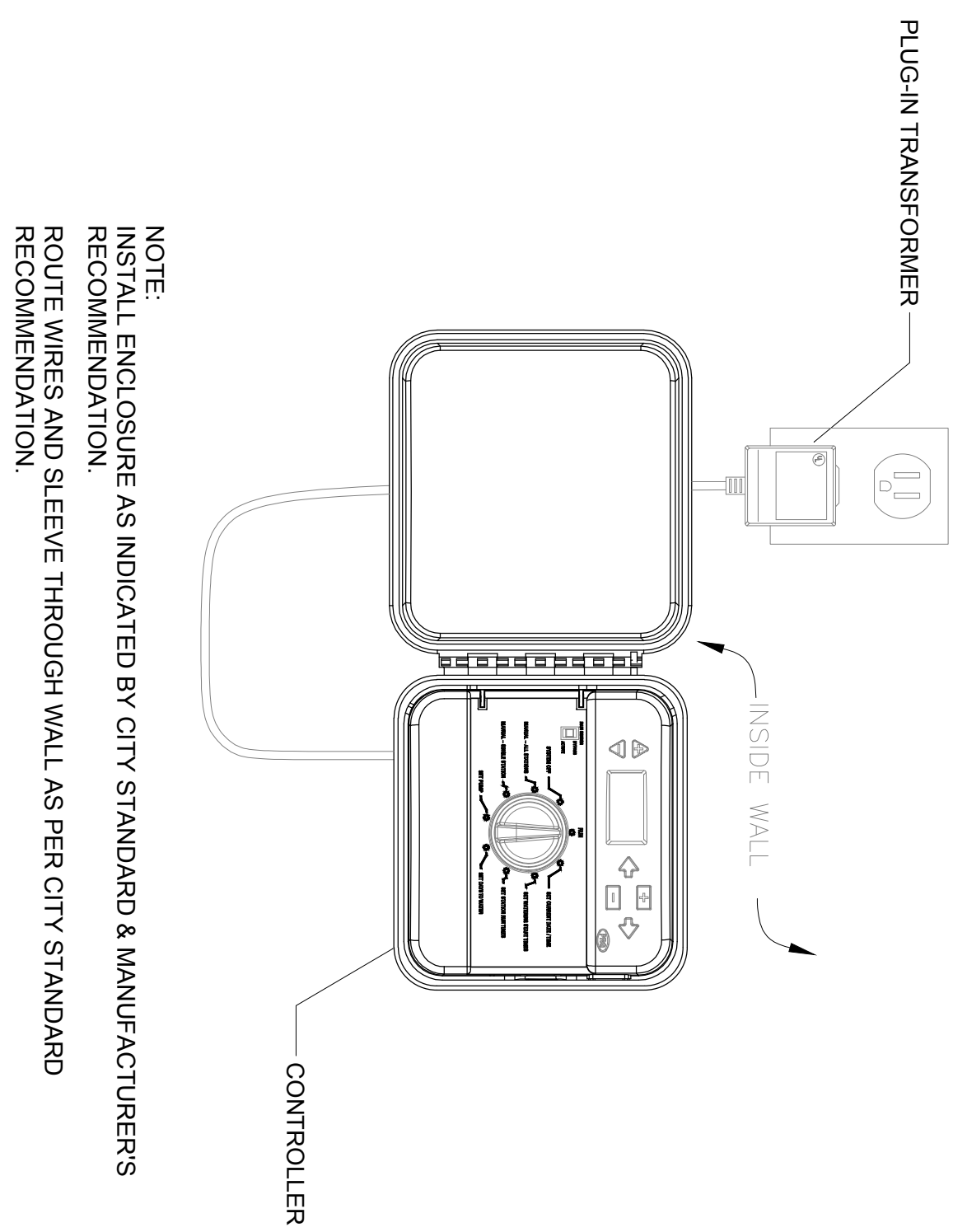
SCALE: 1"=10'-0"

SEE SHEET L-5 FOR IRRIGATION NOTES AND LEGENDS
 SEE SHEETS L-9-L-10 FOR IRRIGATION DETAILS

PLANNING AND ZONING INFORMATION:
 PROPOSED: NEW CONSTRUCTION OF 4 STORY MIXED USE PROJECT WITH TWO
 LEVELS OF SUBTERRANEAN PARKING GARAGE
 DEMOLITION OF THE EXISTING 4,212 SF BUILDING UNDER SEPARATE
 PERMIT
 ADDRESS: 16949-19555 W. SHERMAN WAY, LOS ANGELES, CA 91406
 LOT AREA: 49,333.3 SF

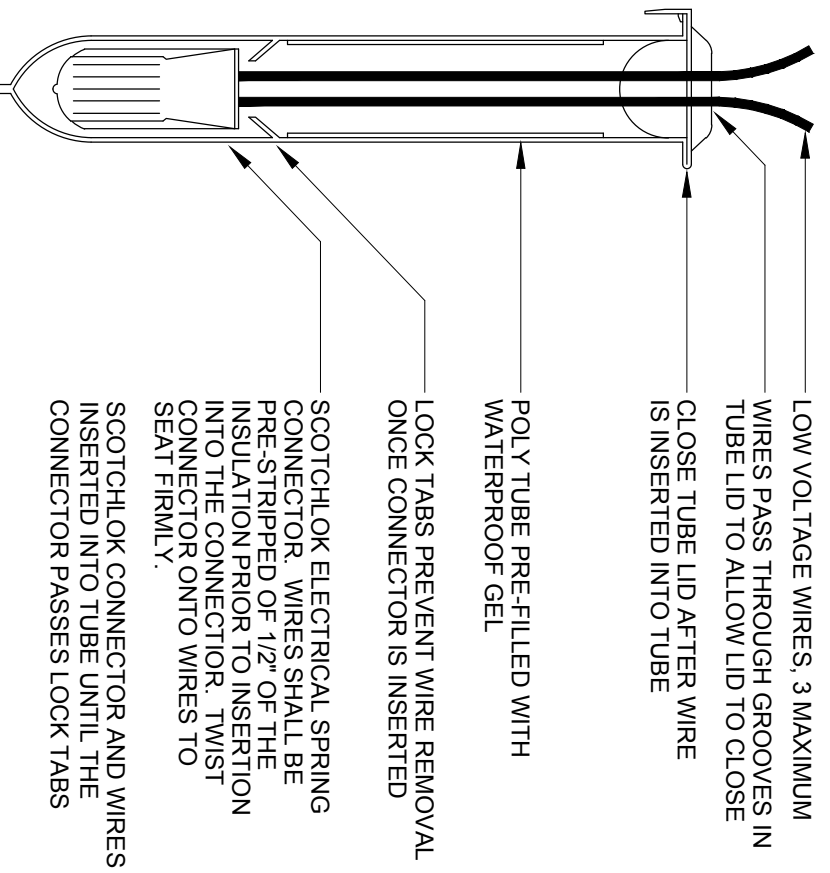


 <p>10947 Westcott Ave Sherman CA 91403 818-232-2370 shermeninc@gmail.com</p>	<p>OWNER 100 FRANKLIN COURT GLENDALE, CA 91205</p>	<p>PROJECT 16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406</p>	<p>DRAWING TITLE ROOF PLAN - IRRIGATION PLAN</p>
	<p>SHEET L-8 8 OF 13</p>		



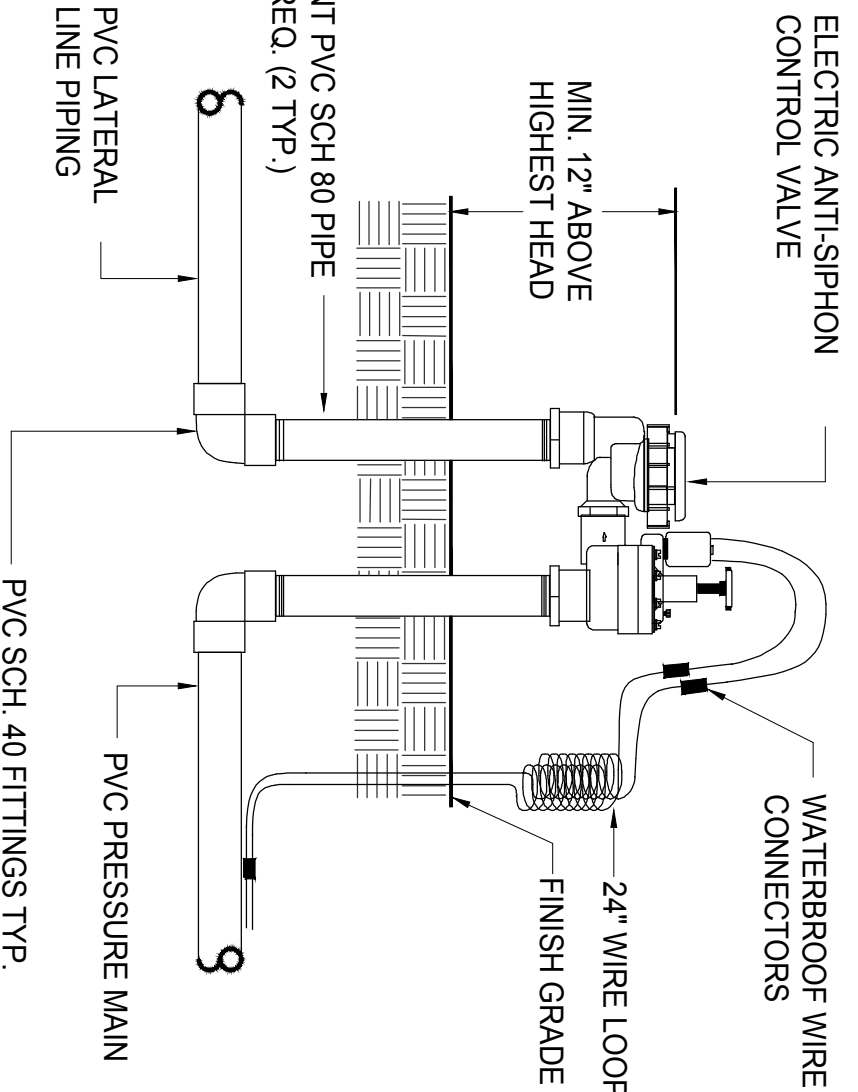
NOTE:
INSTALL ENCLOSURE AS INDICATED BY CITY STANDARD & MANUFACTURERS RECOMMENDATION.
ROUTE WIRES AND SLEEVE THROUGH WALL AS PER CITY STANDARD RECOMMENDATION.

D WALL MOUNT CONTROLLER

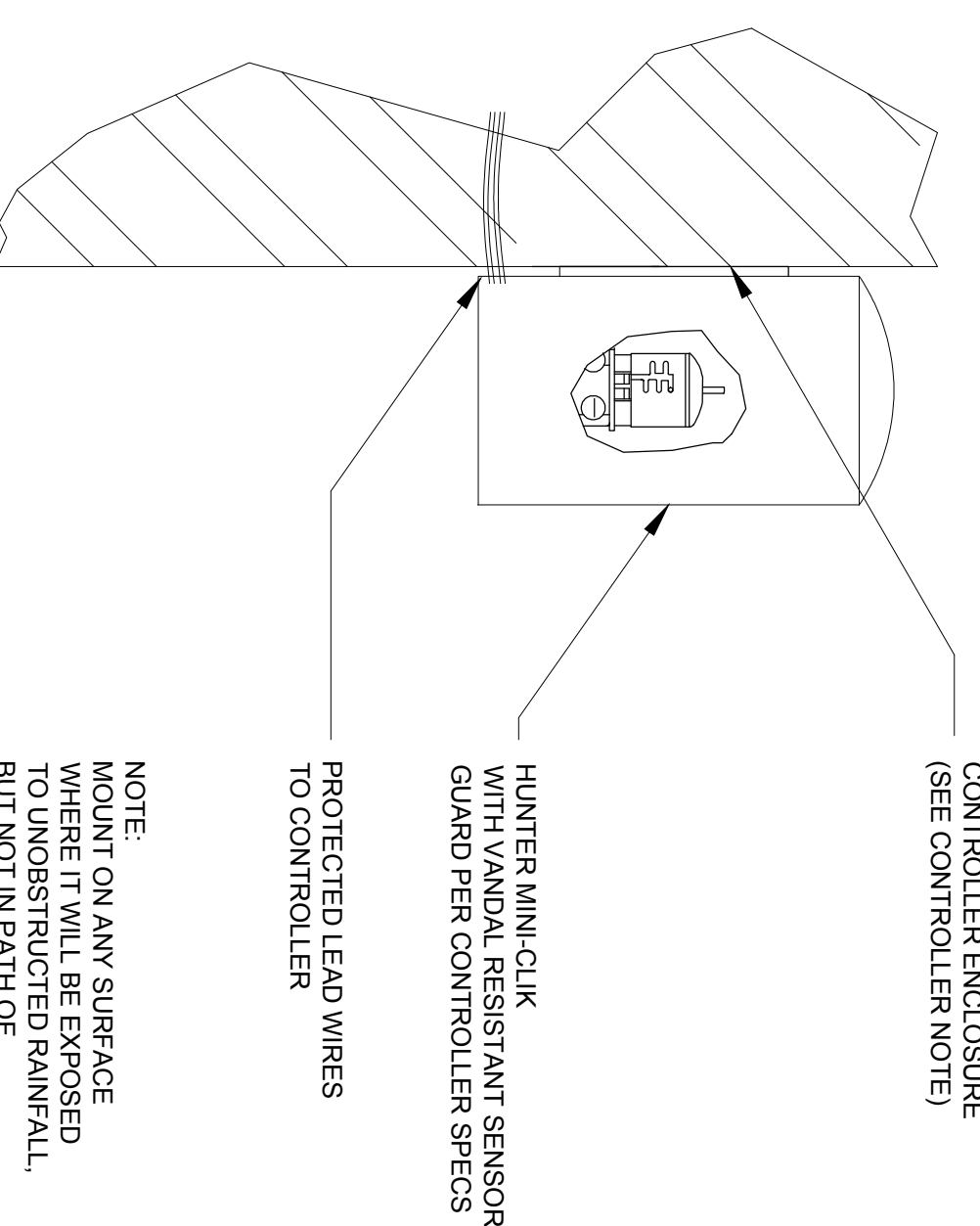


NOTE:
WIRE CONNECTOR SHALL BE A 3M DRY DIRECT BURY SPLICE KIT.
KIT SHALL INCLUDE A SCOTCHLOK SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PRE-FILLED WITH GEL.
DIRECT BURY SPLICE KIT SHALL BE USED TO ELECTRICALLY CONNECT 2, 3 & 4 OR 4# PAGES WIRE COPPER WIRES. UNDER WIRE OR SPRINKLER QUANTITIES OF WIRES SHALL REQUIRE A LARGER DIAMETER WIRE CONNECTION.

H WIRE CONNECTION

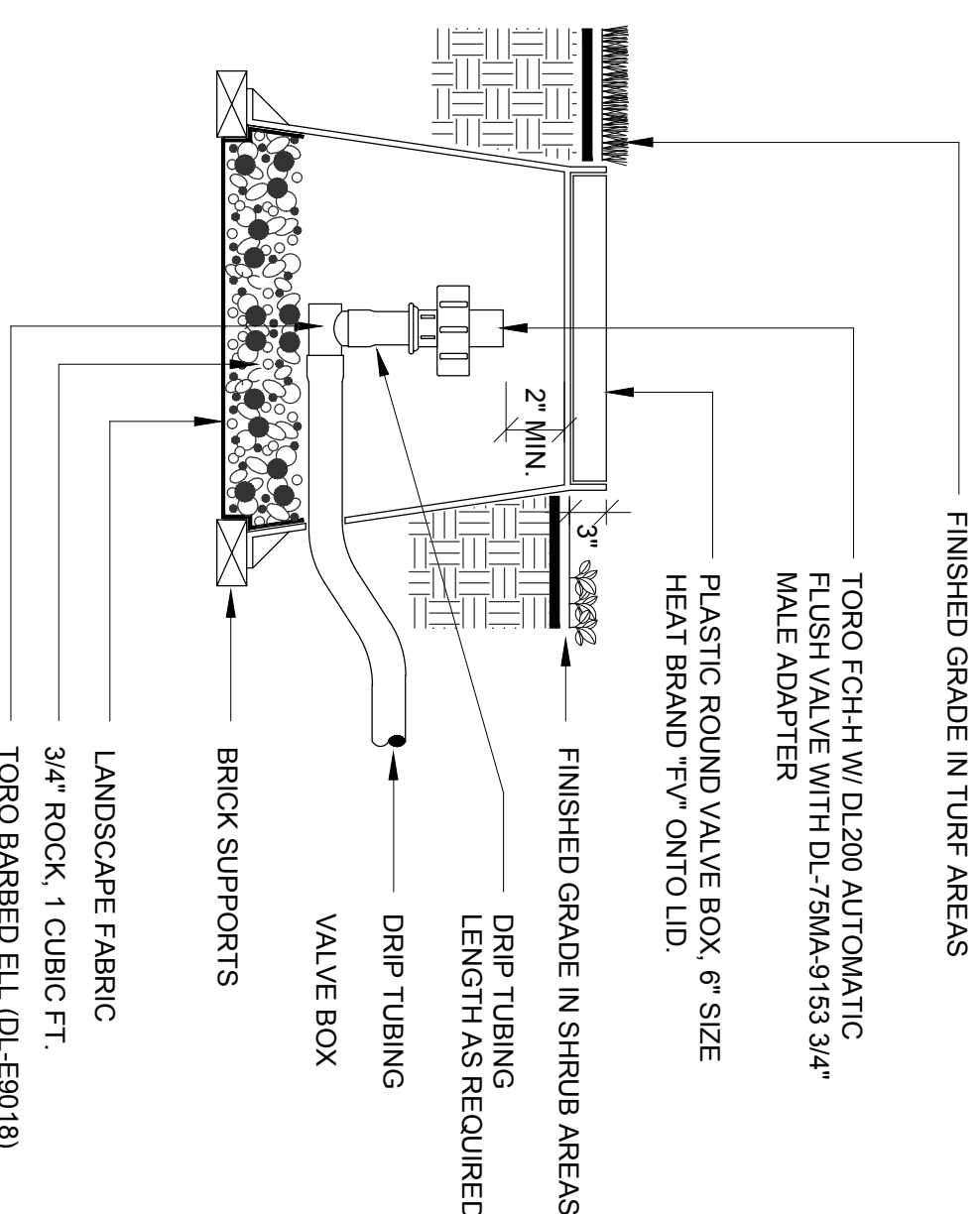


L ANTI-SIPHON ASSEMBLY

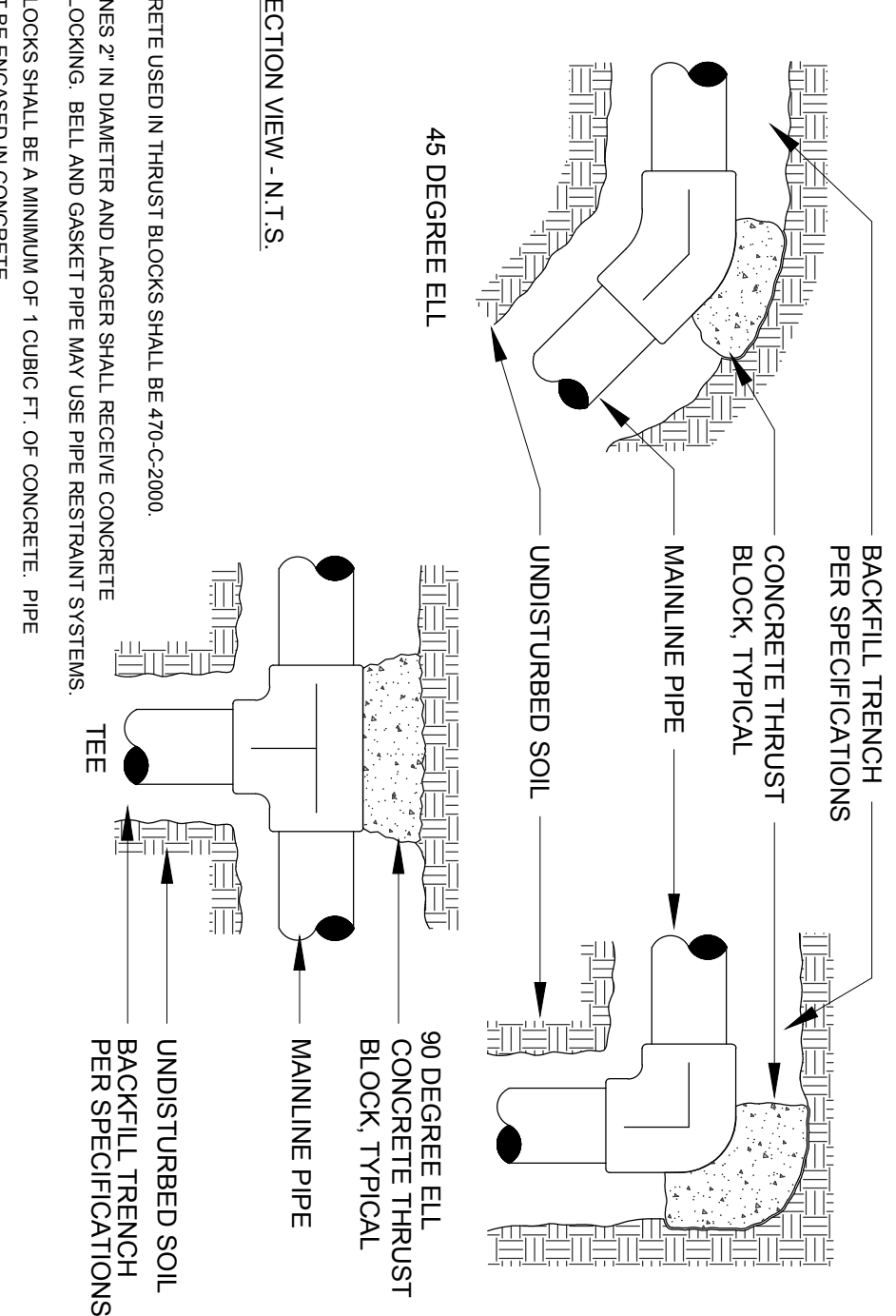


NOTE:
MOUNT ON ANY SURFACE WHERE IT WILL BE EXPOSED TO UNDESIRABLE RAINFALL, NOT IN PATH OF SPRINKLER SPRAY.

C WIRELESS RAIN/FREEZE SENSOR

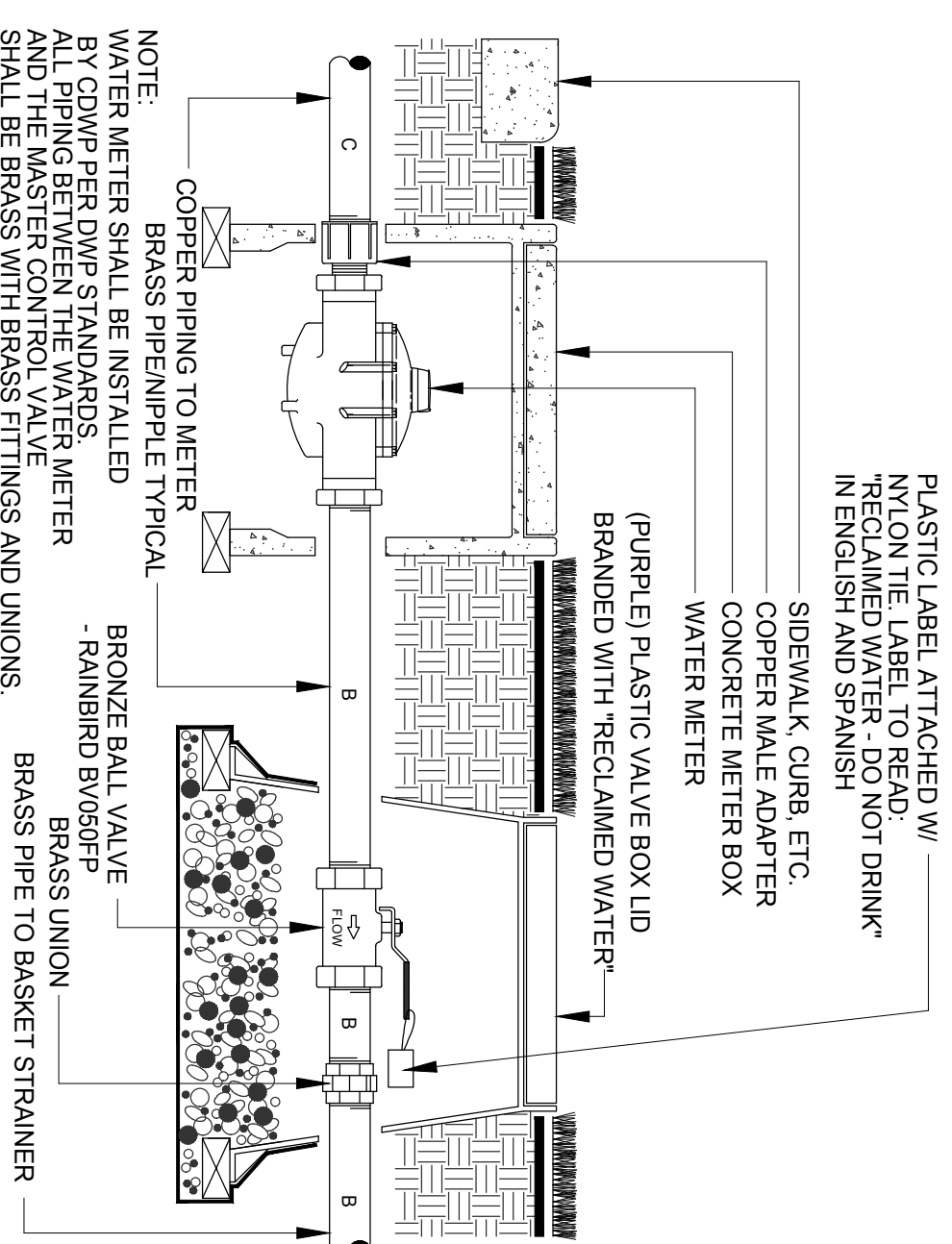


G FLUSH VALVE

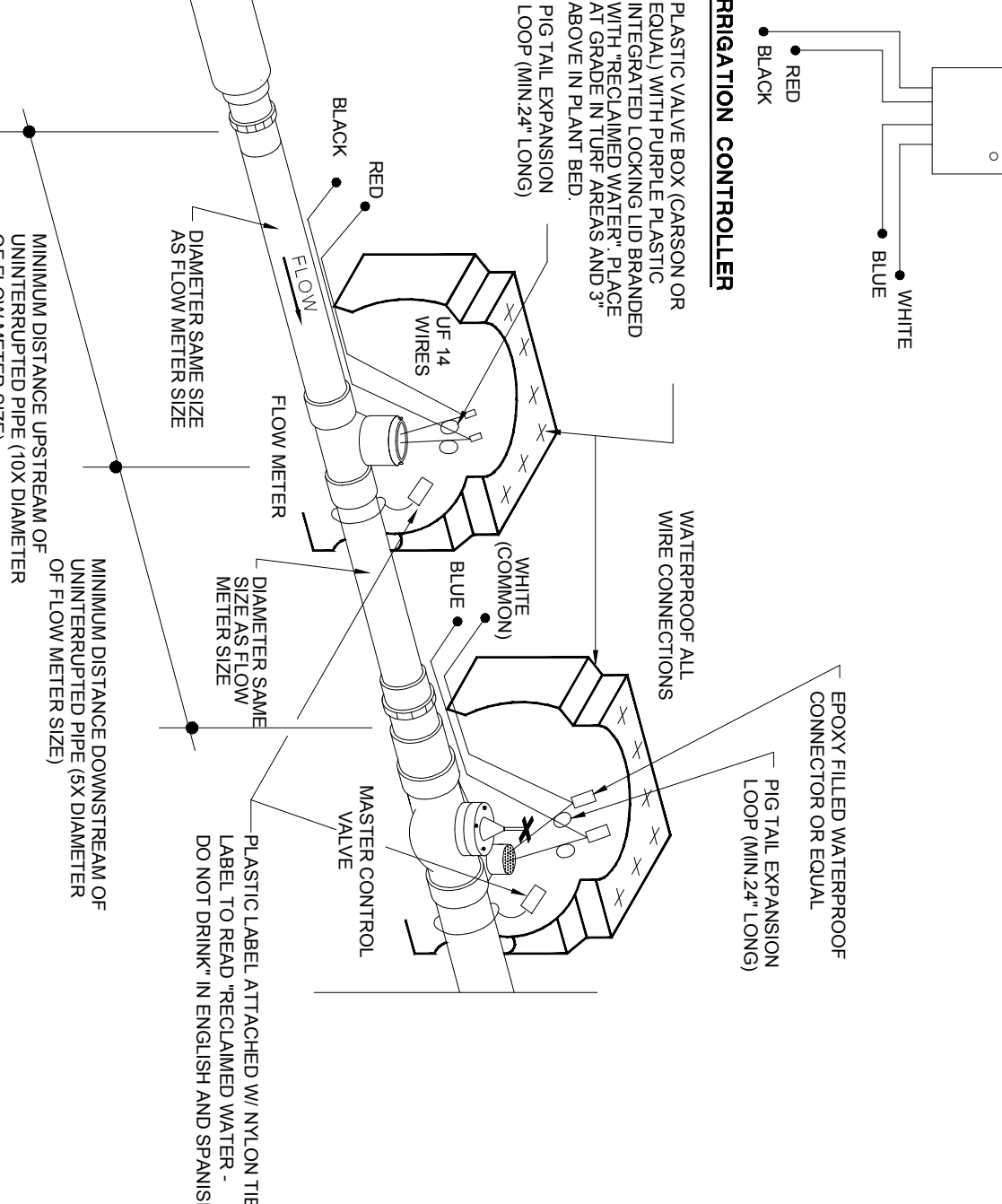


NOTES:
ALL CONCRETE USED IN THRUST BLOCKS SHALL BE 4000-PSI. SUPPLY LINES 2" IN DIAMETER AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKING. BELL AND GASKET PIPE MAY USE PIPE RESTRAINT SYSTEMS. THRUST BLOCKS SHALL BE A MINIMUM OF 1 CUBIC FT. OF CONCRETE. PIPE SHALL NOT BE ENCASED IN CONCRETE.
ALL MANLINES SHALL BE INSTALLED AND TESTED ACCORDING TO THE MANUFACTURERS INSTALLATION SPECIFICATIONS.
ALL TRENCH DEPTH AND WIDTH SHALL BE PER THE SPECIFICATIONS.
WEAP PLASTIC FITTINGS IN CONTACT WITH CONCRETE USING BLACK PIPE TAPE.

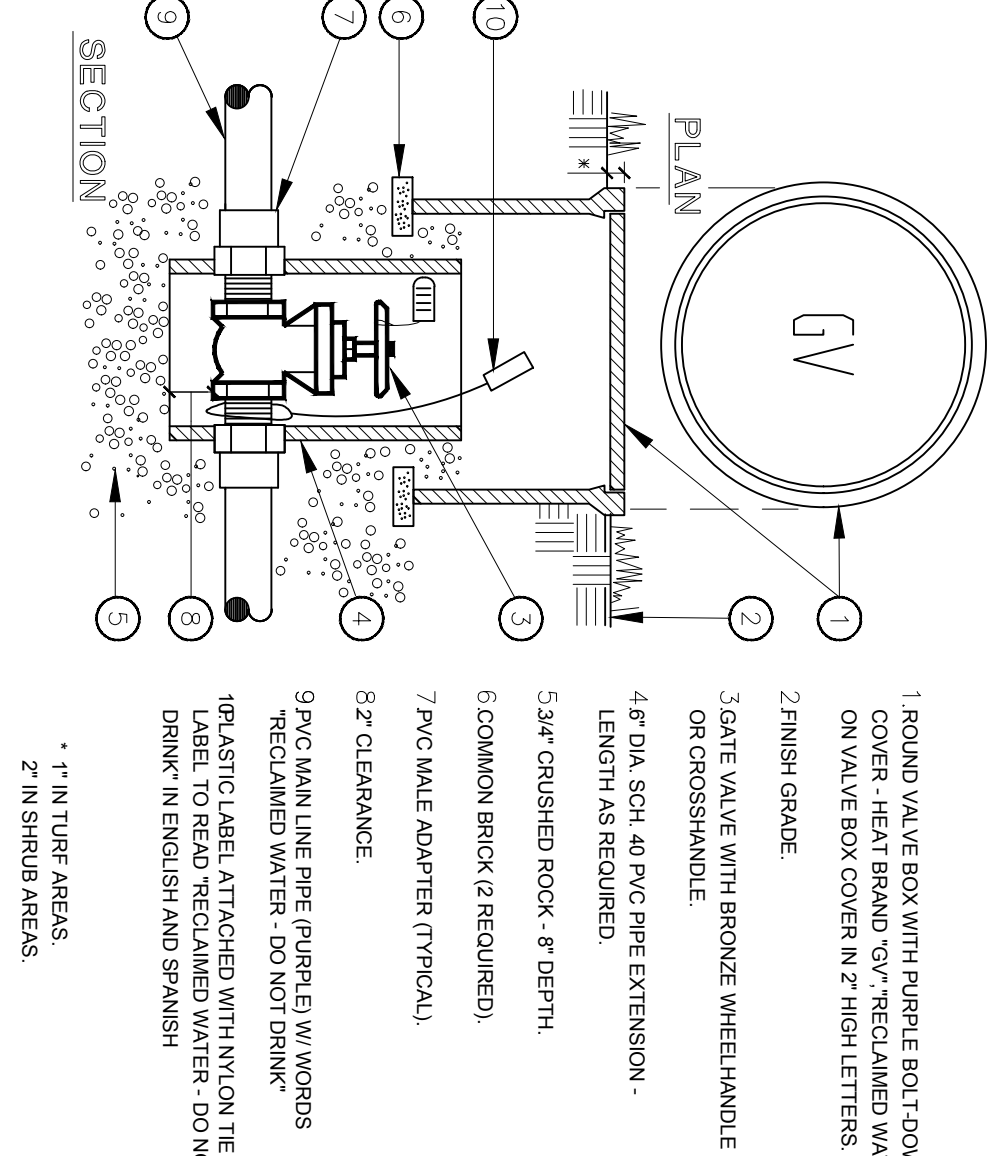
K THRUST BLOCKS



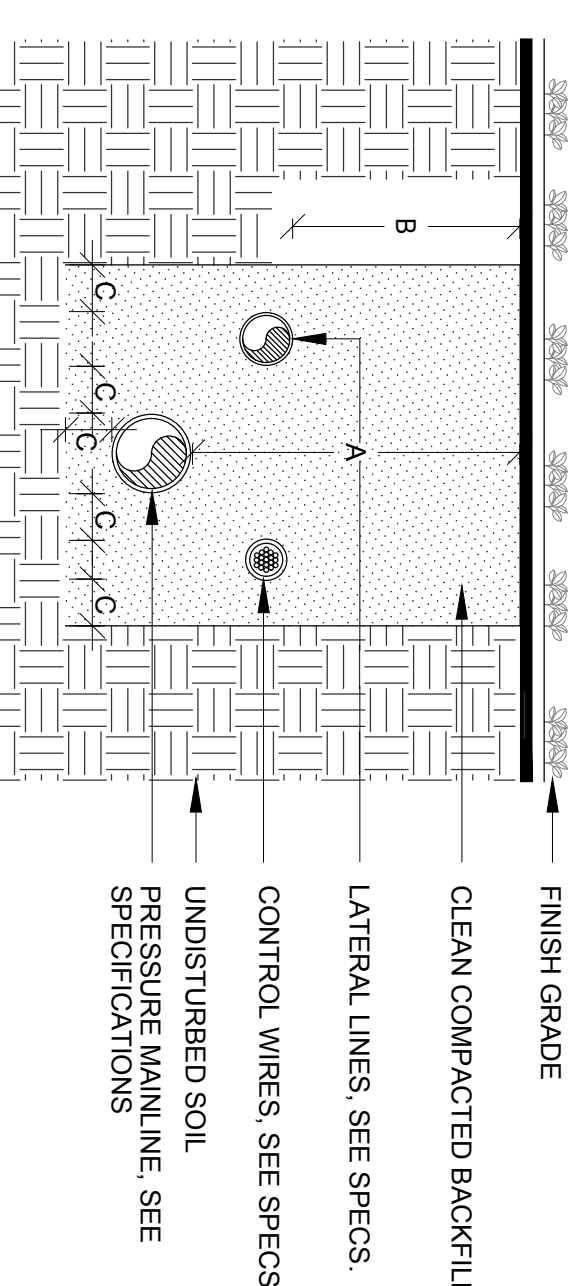
B TYPICAL POINT OF CONNECTION



F FLOW METER

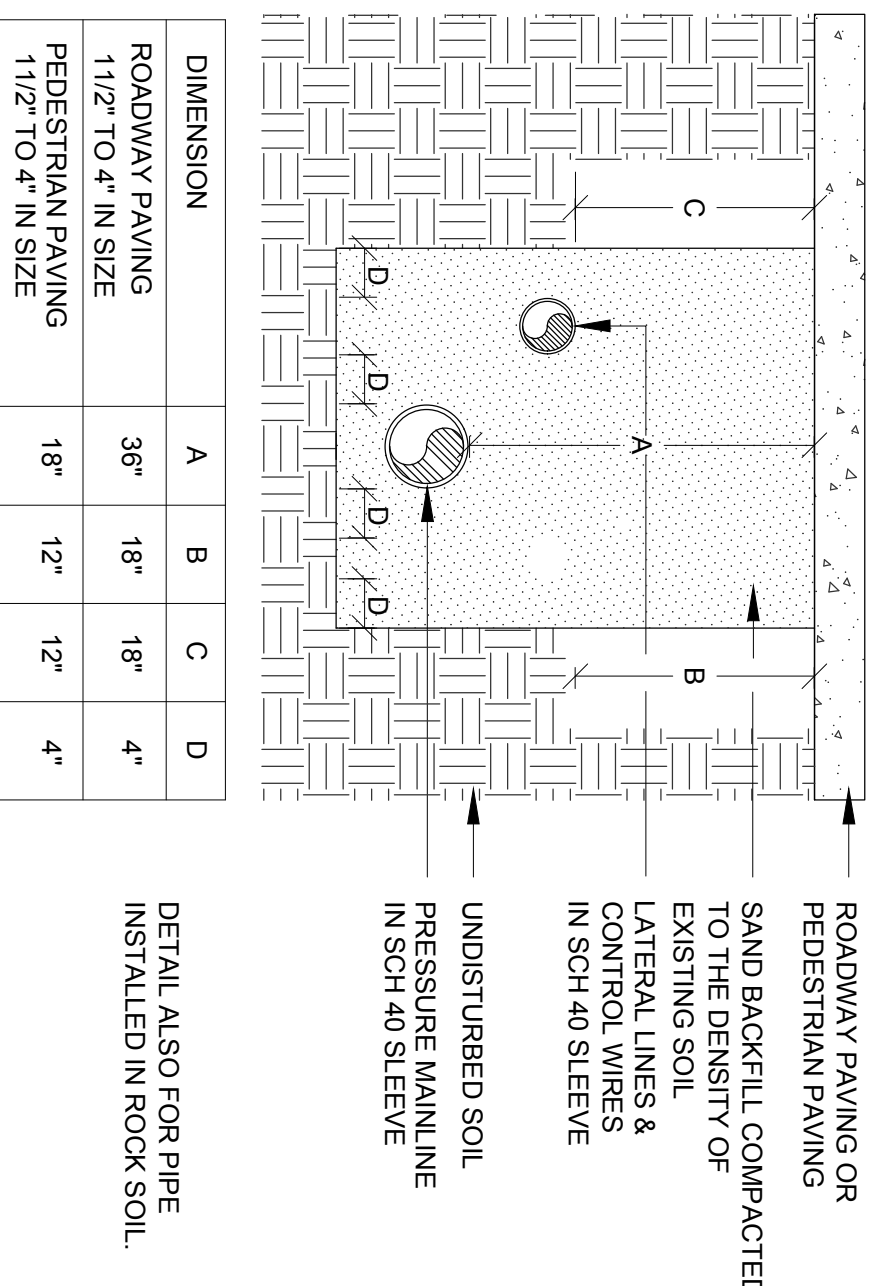


J GATE VALVE

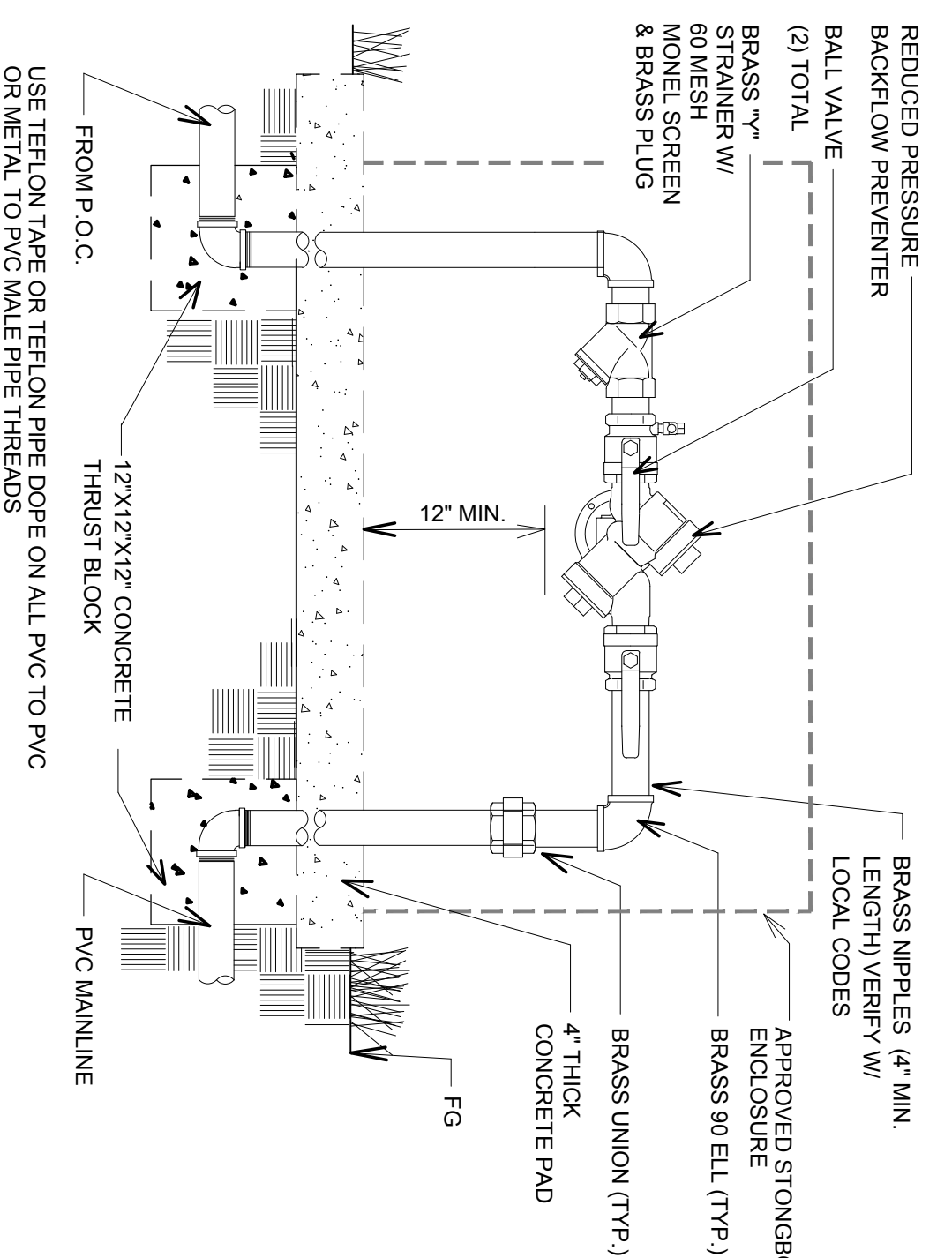


DIMENSION	A	B	C
3/4" TO 2-1/2" IN SIZE	18"	12"	4"
3" TO 6" IN SIZE	24"		4"

A PIPE INSTALLATION



E SLEEVE INSTALLATION



I BACKFLOW PREVENTOR

10947 Viscont Ave
Sherman Oaks, CA 91604
shermanhdb@att.net
shermanhdb@gmail.com



OWNER

100 FRANKLIN COURT
GLENDALE, CA 91205

PROJECT

16949-19555 W. SHERMAN WAY
LOS ANGELES, CA 91406

DRAWING TITLE

IRRIGATION DETAILS



REGISTERED PROFESSIONAL ENGINEER
SHERMAN HDB INC.
SHERMAN, CALIFORNIA

DATE: 11/28/2022

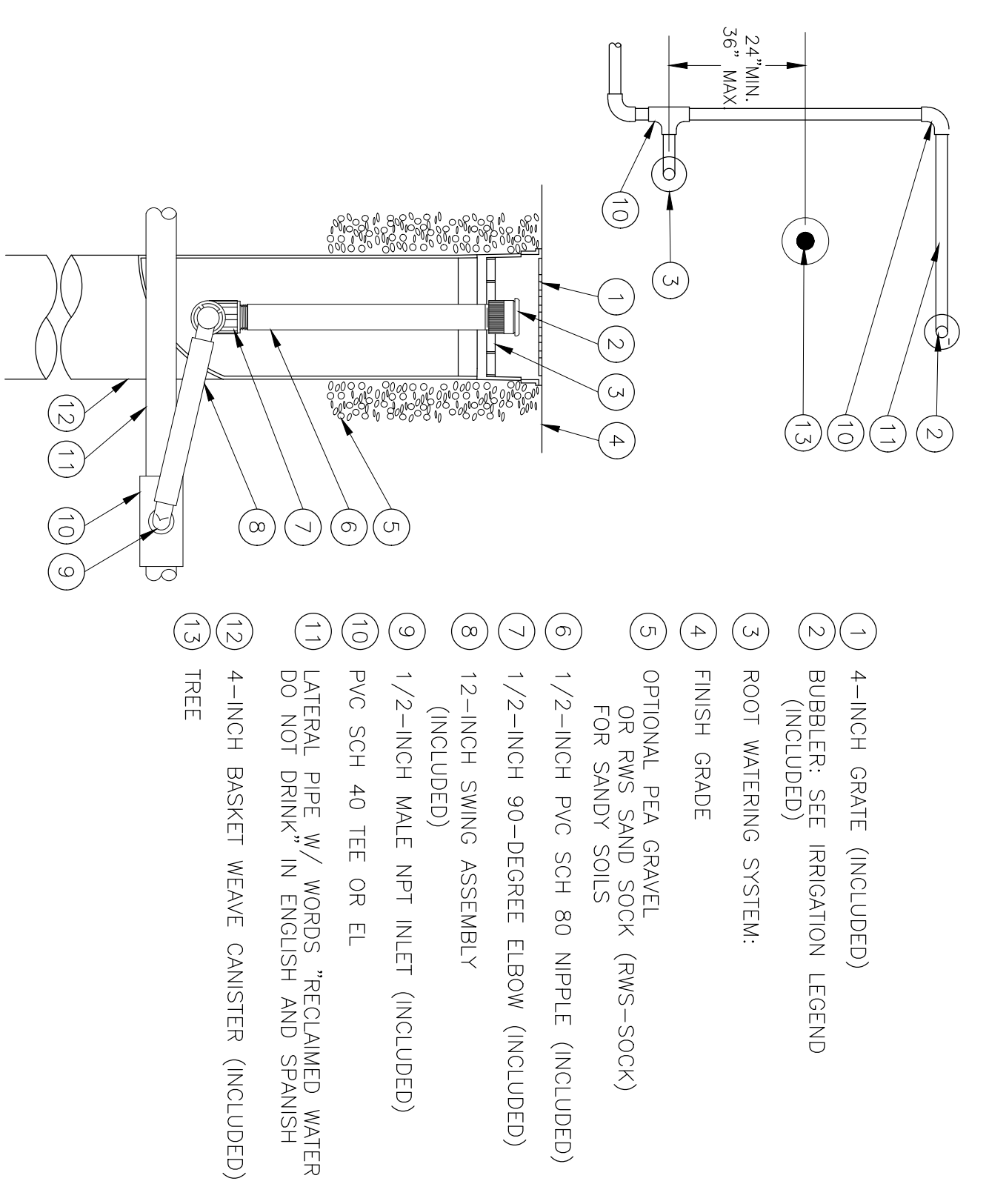
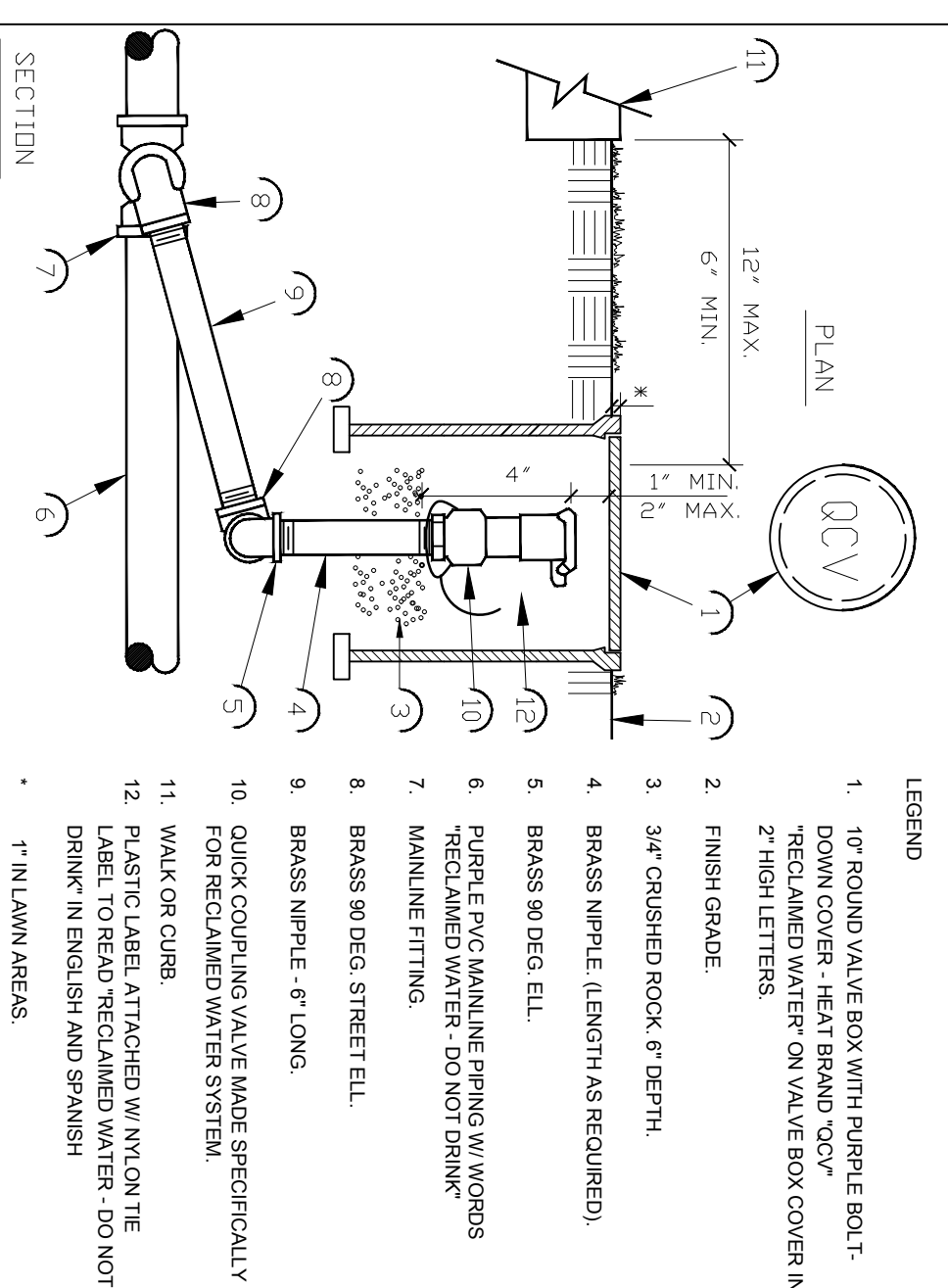
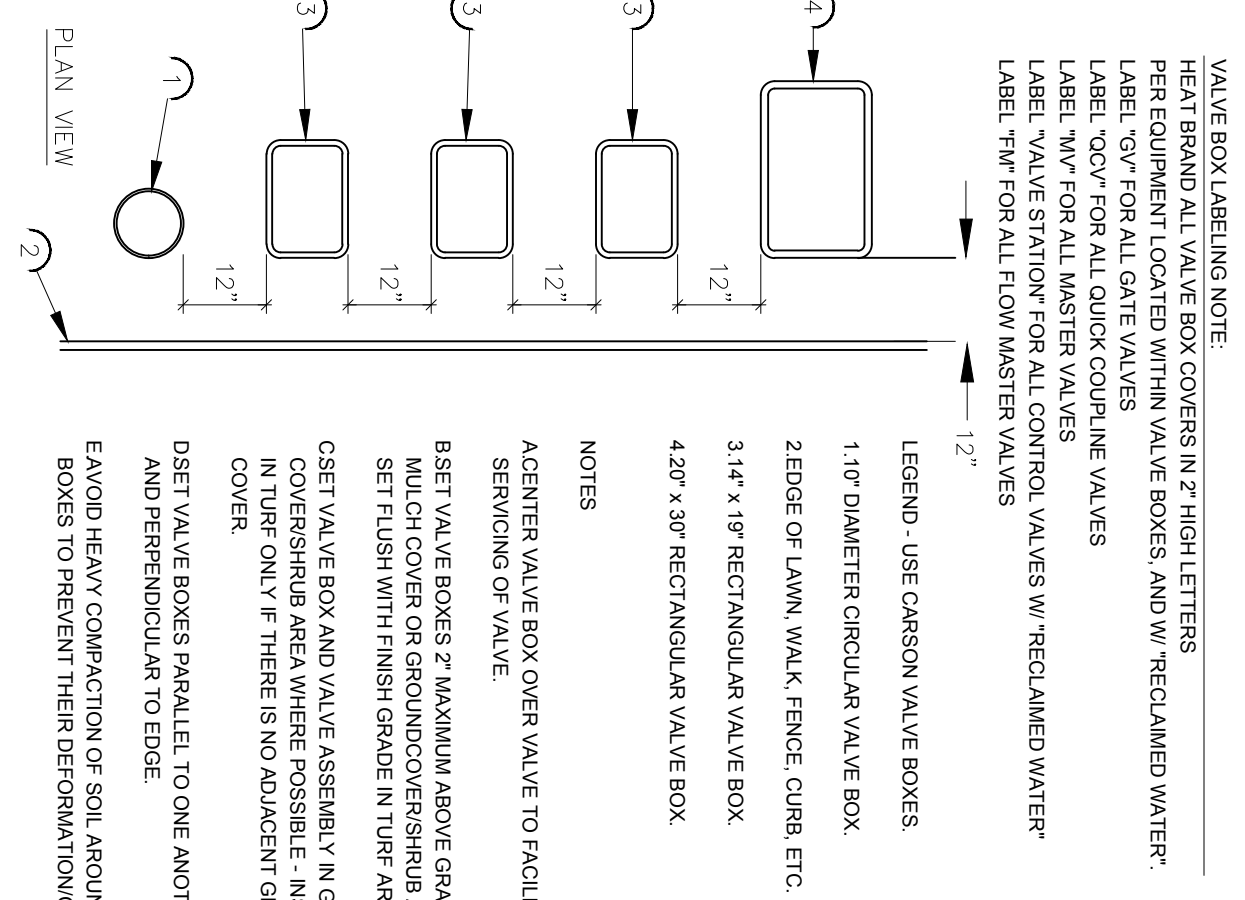
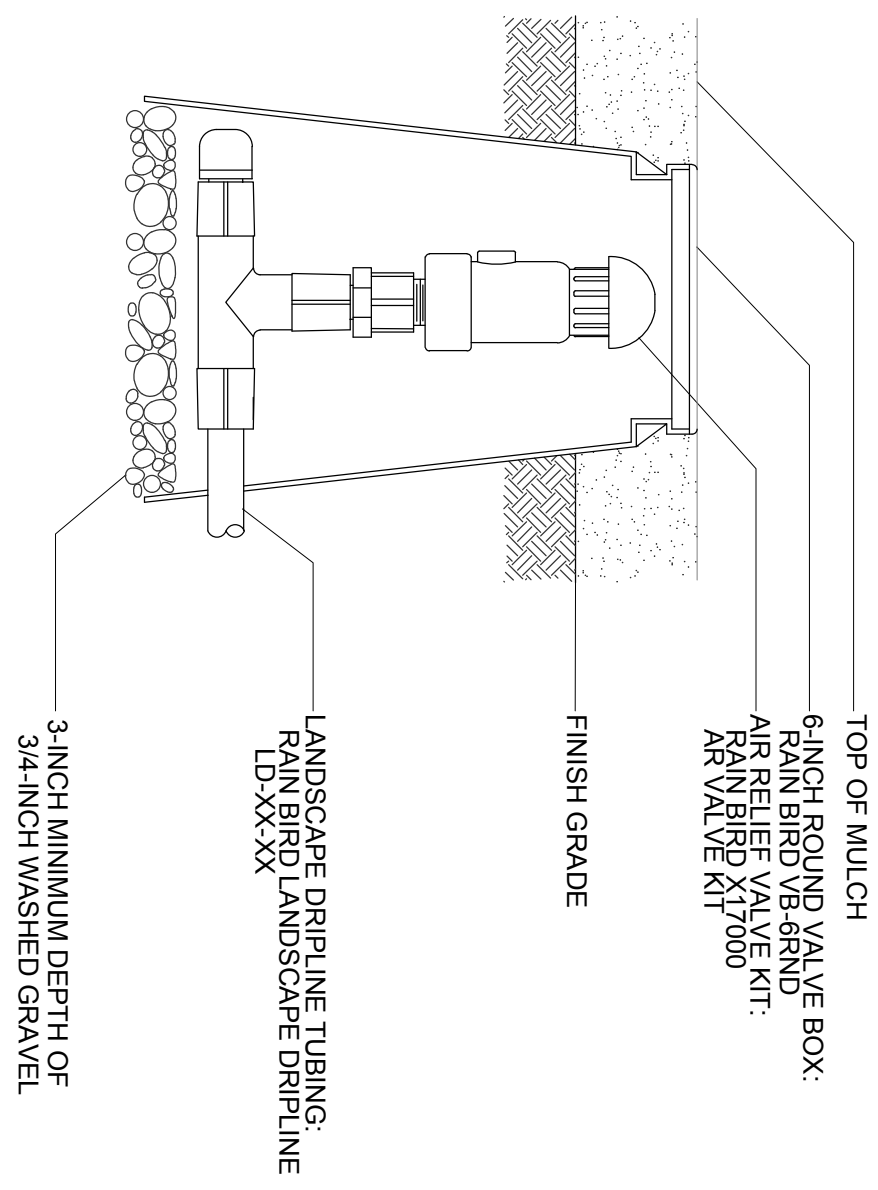
SCALE: 1"=10'-0"

DRAWN: SA

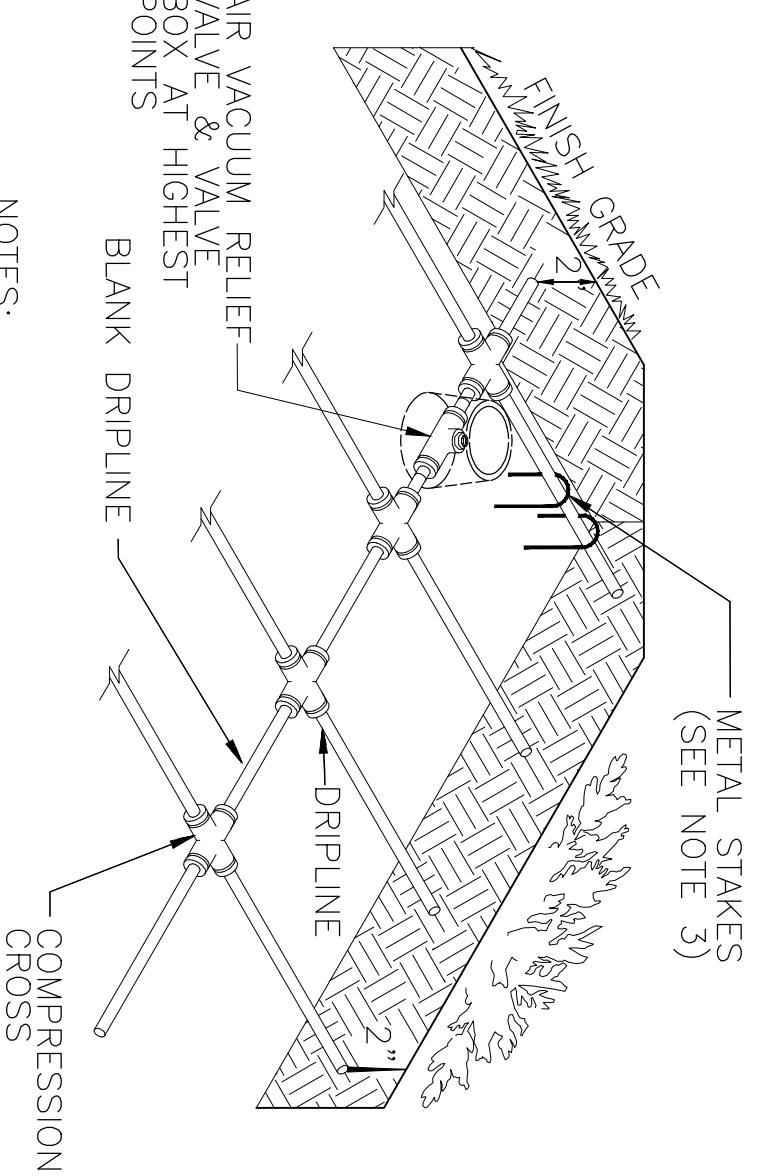
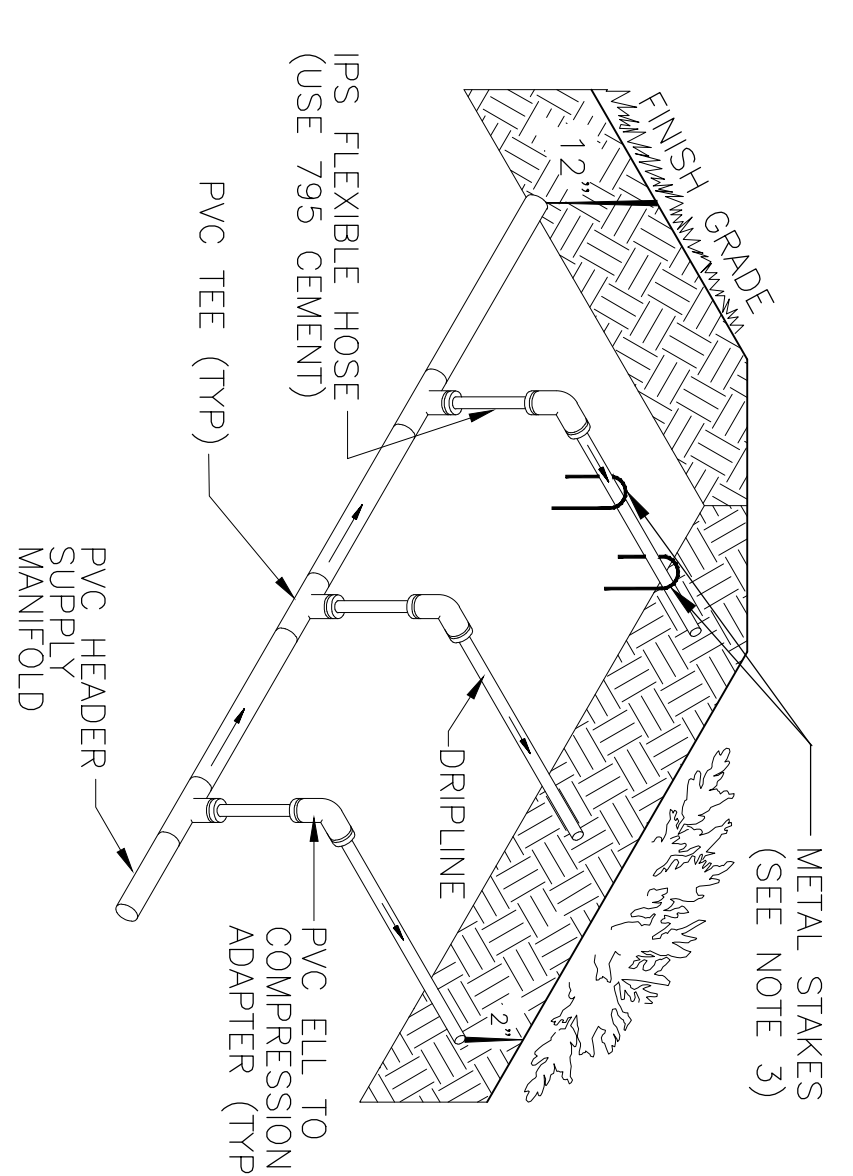
APPROVED:

JOB #: 22-037

SHEET
L-9
9 OF 13

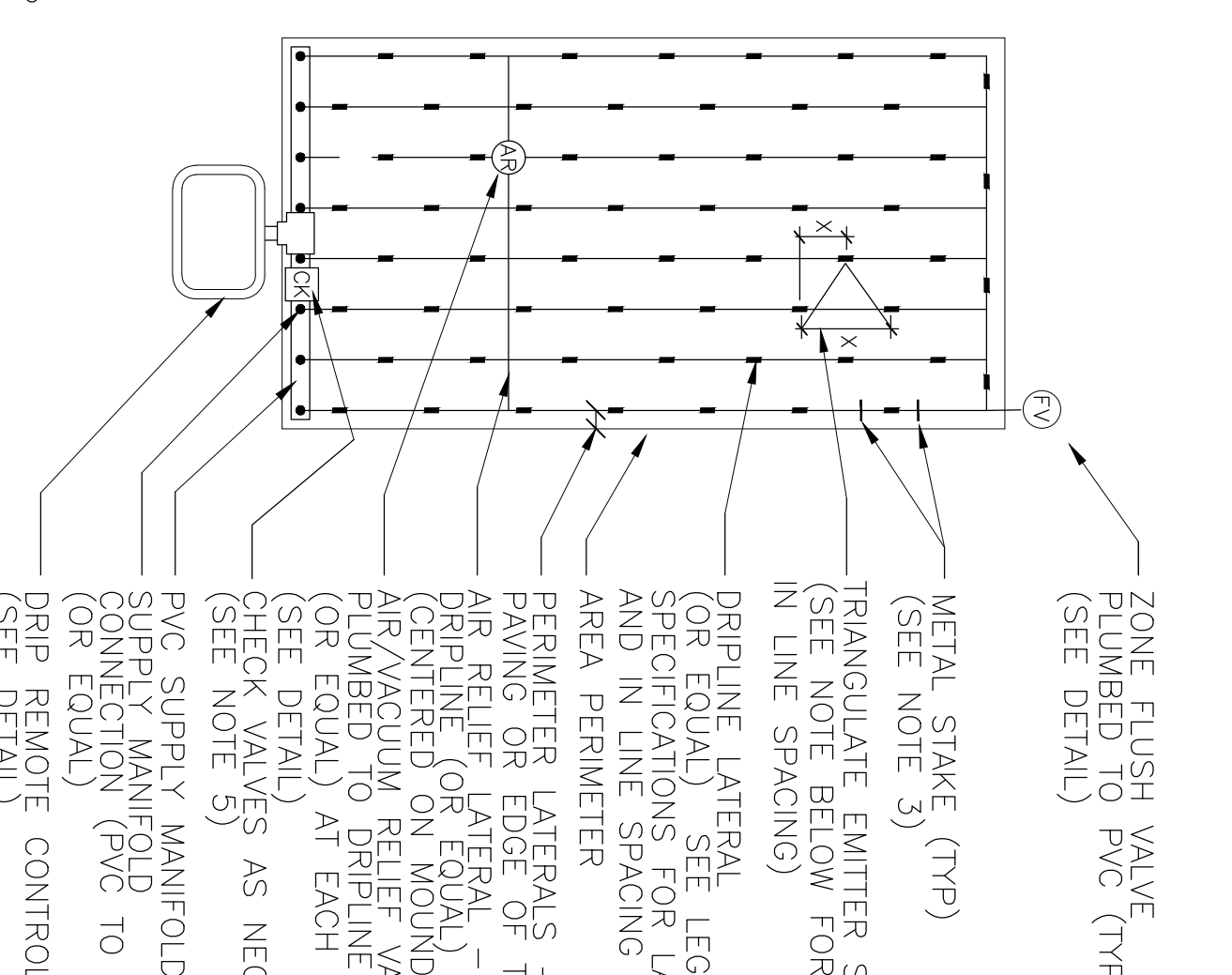
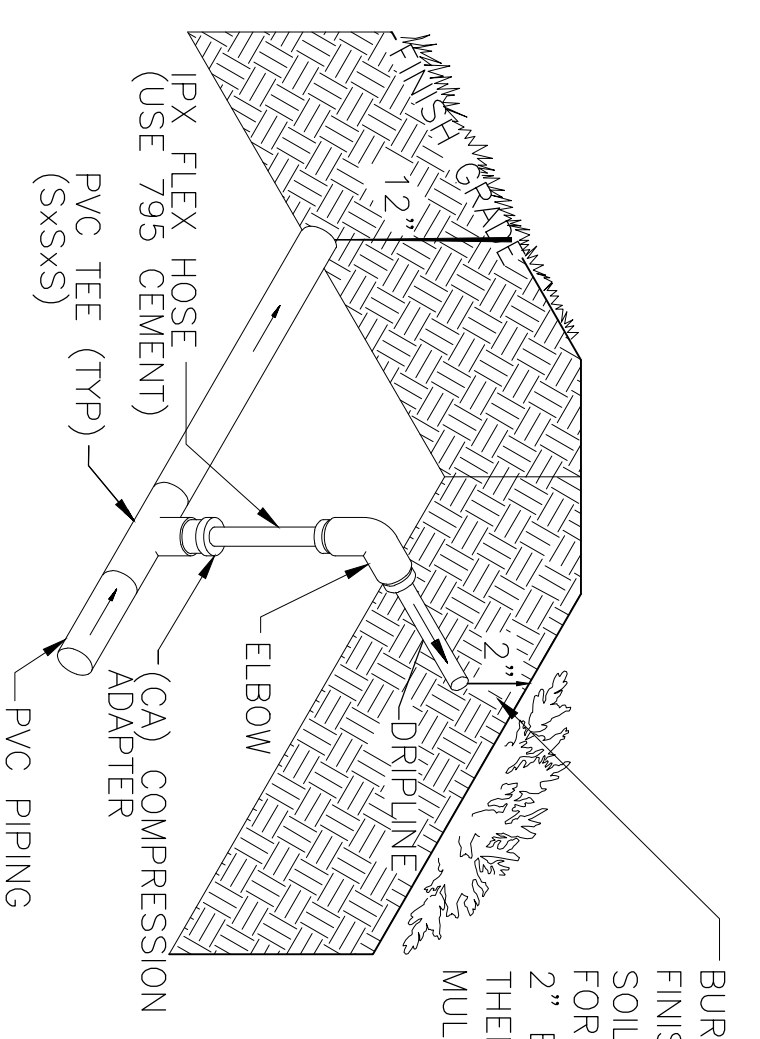


D AIR RELIEF VALVE

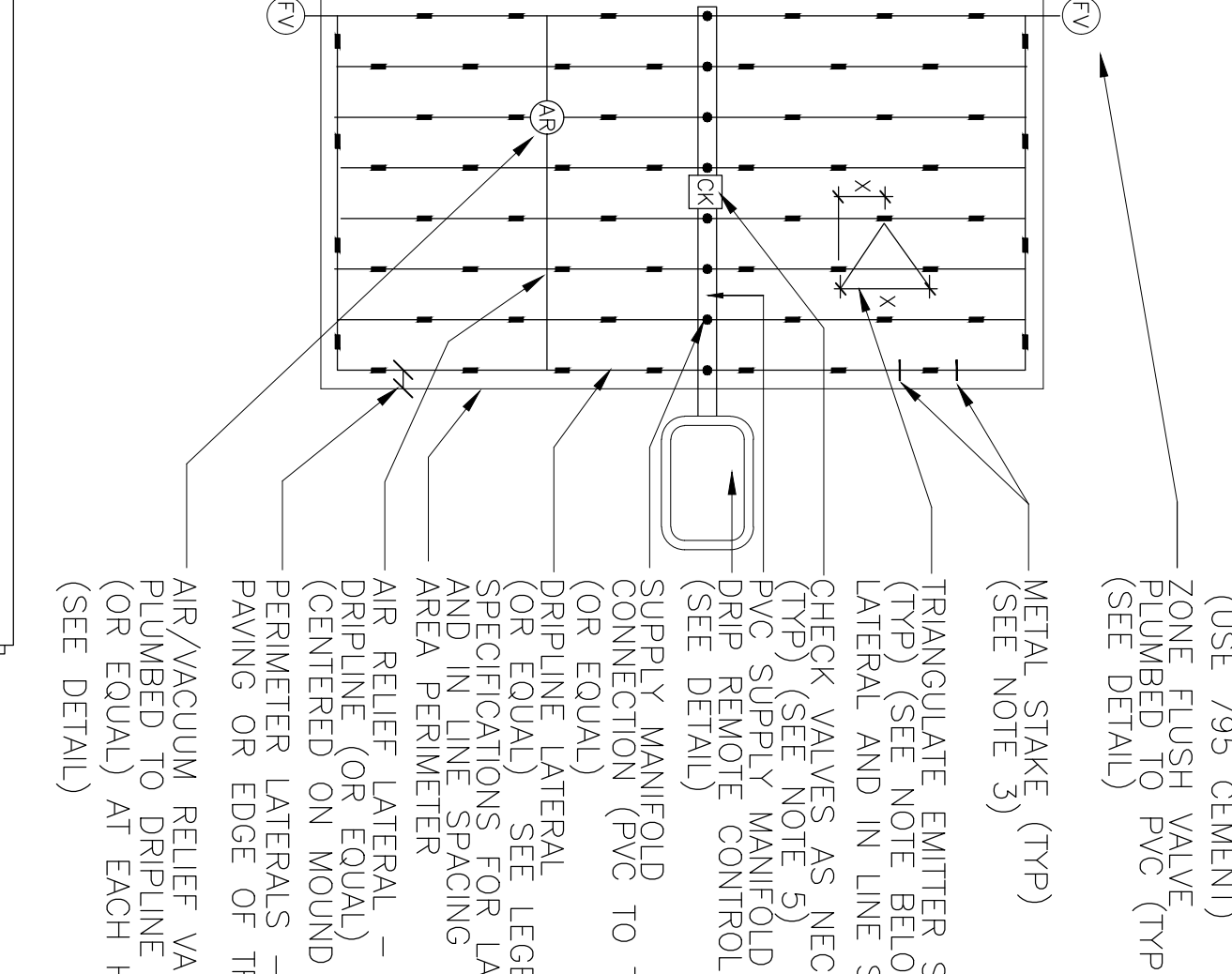
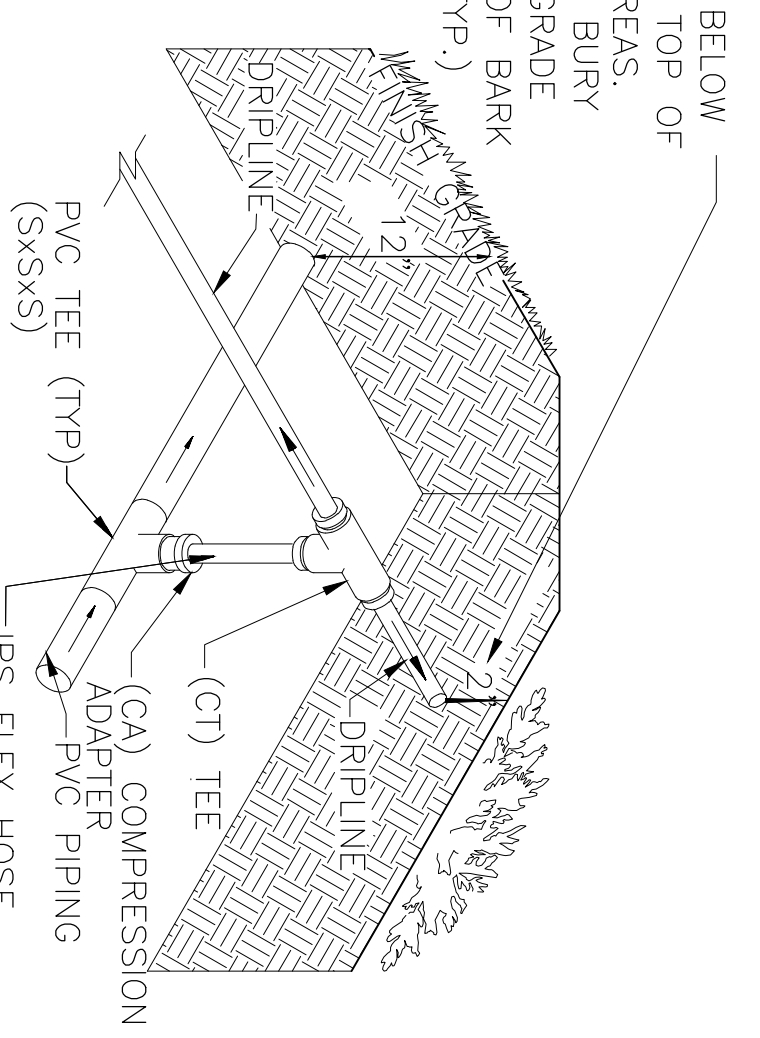


- NOTES:
1. SEE IRRIGATION NOTES/LEGEND/SPECIFICATIONS FOR ALL DIMENSIONS AND LATERAL AND INLINE SPACING
 2. ALL FITTINGS TO BE USED WILL BE PER MANUFACTURERS SPECIFICATIONS. USE COMPRESSION FITTINGS ONLY OR APPROVED EQUAL
 3. BURY DRIPLINE 2" BELOW GRADE AND STAKE EACH DRIPLINE AT 4' O.C. OR AS NECESSARY TO INSURE SECURITY
 2. ALL TREES ARE TO BE PLANTED WITHIN CENTER OF DRIP LINE RUNS. KEEP DRIP LINE A MINIMUM OF 2' AWAY FROM TREE TRUNK.
 5. INSTALL CHECK VALVES AT 6' ELEVATION CHANGE INTERVALS (TYP)

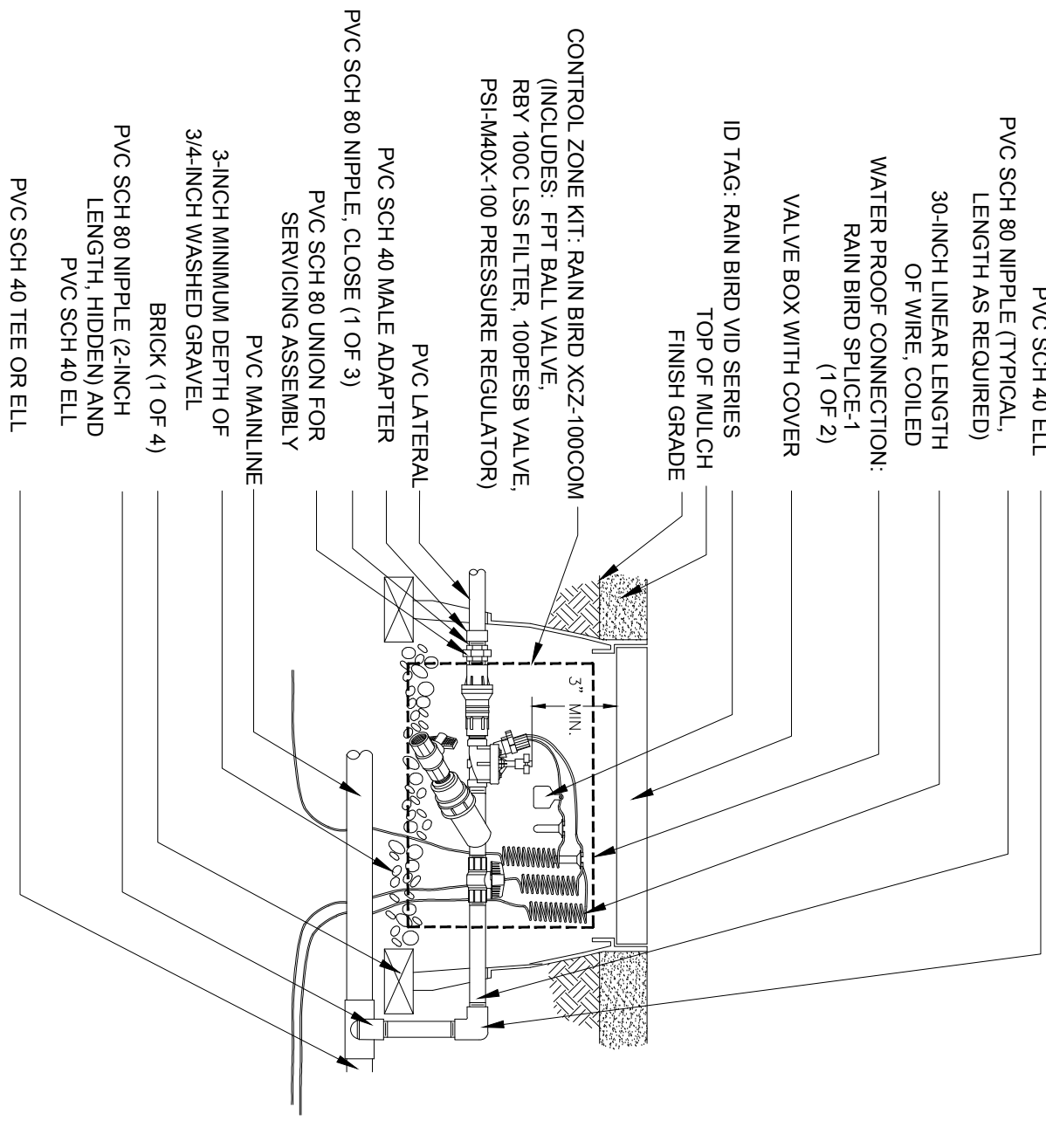
C VALVE BOX INSTALLATION



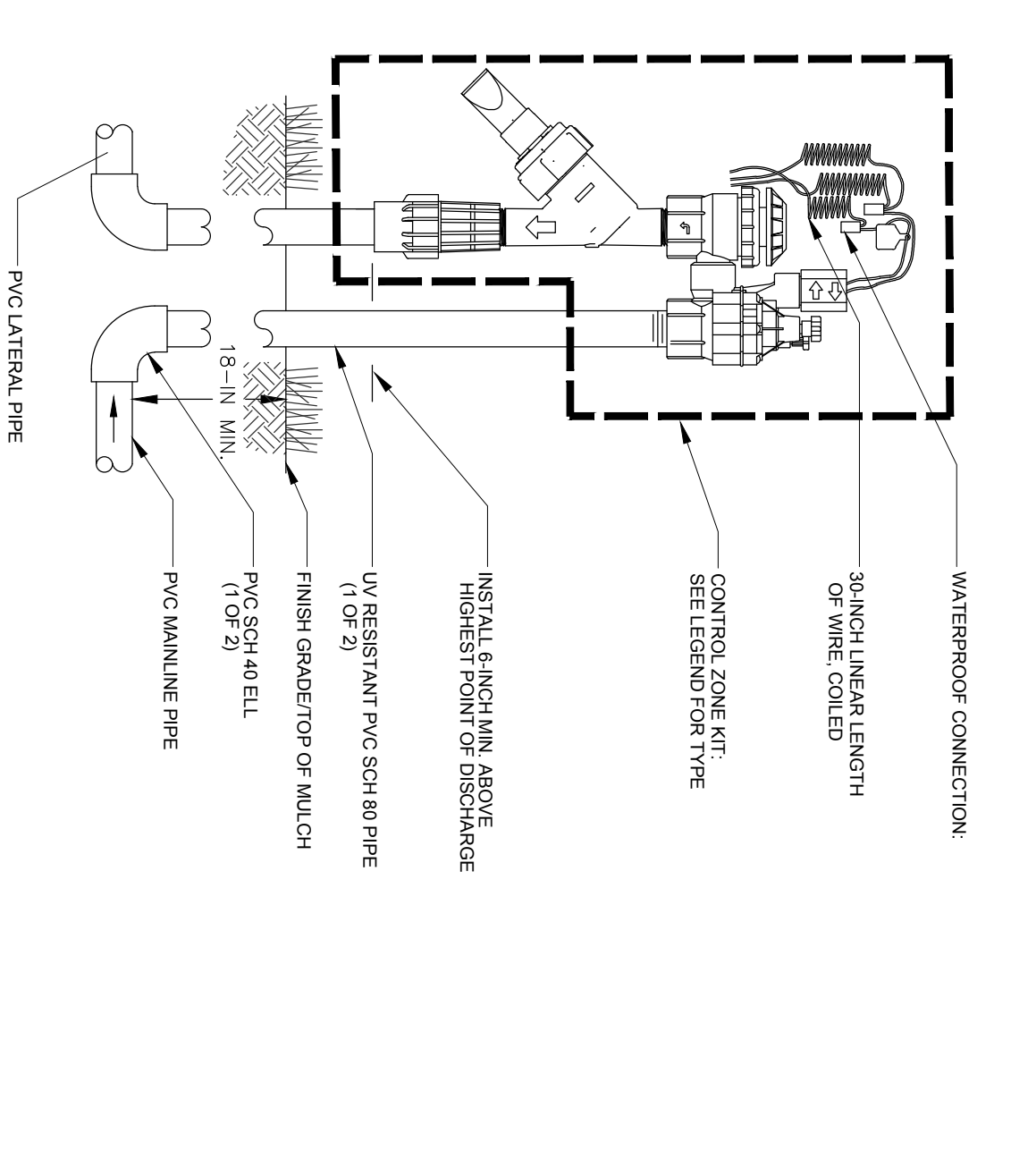
B QUICK COUPLER



A ROOT WATERING SYSTEM



E DRIP VALVE



G XERIGATION CONTROL ZONE KIT

IRRIGATION SYSTEM

I. SCOPE

Provide all labor, materials, transportation, and services necessary to furnish and install irrigation systems as shown on the drawings and described herein.

II. QUALITY ASSURANCE AND REQUIREMENTS

- A. Permits and Fees:
The contractor shall obtain and pay for any and all permits and all inspections as required.
- B. Manufacturers Directions:
Manufacturers directions and detailed drawings shall be followed in all cases where the manufacturers of articles used in this contract furnish directions covering points not shown in the drawings and specifications.
- C. Ordinances and Regulations:
All local, municipal and state laws, and rules and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these specifications, and their provisions shall be carried out by the contractor. Anything contained in these specifications shall not be construed to conflict with any of the above rules and regulations or requirements of the same. However, when these specifications and drawings call for or describe materials, workmanship or construction of a better quality, higher standards, or larger size than is required by the above rules and regulations, the provisions of these specifications and drawings shall take precedence.
- D. Explanation of Drawings:
1. Due to the scale of drawings, it is not possible to indicate all offsets, fittings, sleeves, etc. which may be required. The contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan his work accordingly, furnishing such fittings, etc. as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting and architectural features.
2. The work Architect as used herein shall refer to the Owners authorized representative.
3. All work called for on the drawings by notes or details shall be furnished and installed whether or not specifically mentioned in the specifications.
4. The contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that might not have been considered. Such obstructions or differences should be brought to the attention of the Owners authorized representative. In the event his notification is not performed, the irrigation contractor shall assume full responsibility for any revision necessary.

III. SUBMITTALS

- A. Material List:
1. The contractor shall furnish the articles, equipment, materials or processes specified by name in the drawings and specifications. No substitution will be allowed without prior written approval by the Architect.
2. Complete material list shall be submitted prior to performing any work. Material list shall include the manufacturer, model number and description of all materials and equipment to be used.
3. Equipment or materials installed or furnished without prior approval of the Architect may be rejected and the contractor required to remove such materials from the site at his own expense.
4. Approval of any item, alternate or substitute indicates only that the product or products apparently meet the requirements of the drawings and specifications on the basis of the information or samples submitted.
5. Manufacturers warranties shall not relieve the contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee.
- B. Record and As-Built Drawings:
1. The contractor shall provide and keep up to date a complete as-built record set of blue line ozalid prints which shall be corrected daily and show every change from the original drawings and specifications and the exact as-built locations, sizes, and kinds of equipment. Prints for this purpose may be obtained from the Architect at cost. This set of drawings shall be kept on the site and shall be used only as a record set.
2. These drawings shall also serve as work progress sheets, and the contractor shall make neat and legible annotations thereon daily as the work proceeds, showing the work as actually installed. These drawings shall be available at all times for the inspection and shall be kept in a location designated by the Architect.
3. Before the date of the final inspection, the contractor shall transfer all information from the as-built prints to an ozalid sepi, procured from the Architect. All work shall be neat, in ink and subject to the approval of the Architect.
4. The contractor shall dimension from two (2) permanent points of reference, building corners, sidewalks, or road intersections, etc., the location of the following items:
a. Connection to existing water lines.
b. Connection to existing electrical power.
c. Gate valves.
d. Routing of sprinkler pressure lines (dimension maximum 100 feet along routing).
e. Sprinkler control valves.
f. Routing of control wiring.
g. Quick coupling valves.
h. Other related equipment as directed by the Architect.
- C. Controller Charts:
1. As-built drawings shall be approved by the Architect before controller charts are prepared.
2. Provide one controller chart for each controller supplied.
3. The chart shall show the area controlled by the automatic controller and shall be the maximum size which the controller door will allow.
4. The chart is to be a reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.
5. The chart shall be a black line or blue line ozalid print and a different color shall be used to indicate the area of coverage for each zone.
6. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 10 mils.
7. These charts shall be completed and approved prior to final inspection of the irrigation system.
- D. Operation and Maintenance Manuals:
1. Prepare and deliver to the Architect within ten calendar days prior to completion of the construction, two hard cover binders with three rings containing the following information:
a. Index sheet, stating contractors address and telephone number, list of equipment with name and addresses of local manufacturers representatives.
b. Catalog and parts sheets on every material and equipment installed under this contract.
c. Guarantee statement.
d. Complete operating and maintenance instruction on all major equipment.
2. In addition to the above mentioned maintenance manuals, provide the Owners maintenance personnel with instructions for major equipment and show evidence in writing to the Architect at the conclusion of the project that this service has been rendered.
- E. Equipment to be Furnished:
1. Supply as a part of this contract the following tools:
a. Two (2) sets of special tools required for removing, disassembling and adjusting each type of sprinkler and valve supplied on this project.
b. Two (2) the foot valve keys for operation of gate valves.
c. Two (2) keys for each automatic controller.
d. Two (2) quick coupler keys and matching hose swivels for each type of quick coupling valve installed.
2. The above mentioned equipment shall be turned over to the Owner at the conclusion of the project. Before final inspection can occur, evidence that the Owner has received material must be shown to the Architect.
- III. PRODUCT DELIVERY, STORAGE AND HANDLING
- A. Handling of PVC Pipe and Fittings:
The contractor is cautioned to exercise care in handling, loading, unloading and storing of PVC pipe and fittings. All PVC pipe shall be transported in a vehicle which allows the length of pipe to lie flat so as not to subject it to undue bending or concentrated external load at any point. Any section of pipe that has been dented or damaged will be discarded and, if installed, shall be replaced with new piping.

V. GUARANTEE

- A. The guarantee for the sprinkler/irrigation system shall be made in accordance with the attached form. The general conditions and supplementary conditions of these specifications shall be filed with the Owner or his representative prior to operation of the irrigation system.
- B. A copy of the guarantee form shall be included in the operators and maintenance manual.
- C. The guarantee form shall be re-visited only the contractors retained and contain the following information: GUARANTEE FOR SPRINKLER IRRIGATION SYSTEM

We hereby guarantee that the sprinkler irrigation system we have furnished and installed is free from defects in materials and workmanship, and that work has been completed in accordance with the drawings and specifications, and that we and our usual subcontractors in respect thereto have signed a legal release and release of all claims and obligations and shall be held harmless from and free of any and all claims and obligations of such defects at no additional cost to the Owner. We shall make such repairs or replacements within a reasonable time after receipt of written notice from the Owner, we authorize the Owner to proceed to have said repairs or replacements made at our expense and we will pay the costs and charges hereof upon demand.

PROJECT:

LOCATION: _____
COMPANY: _____
SIGNED: _____
ADDRESS: _____
PHONE: _____
DATE OF ACCEPTANCE: _____

VI. MATERIALS

- A. General: Use only new materials of brands and types noted on drawings, specified herein, or approved equials.
- B. PVC Pressure Main Line Pipe and Fittings:
1. Pressure main line piping for sizes 2 inches and larger, shall be PVC Class 315.
2. Pipe shall be made from an NSF approved Type I, Grade I, PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension (S.D.R.) (Solvent-Weld Pipe).
3. Pressure main line piping for sizes 1-1/2 inches and smaller shall be PVC Schedule 40 with solvent welded joints.
4. Pipe shall be made from NSF approved Type I, Grade I PVC compound conforming to ASTM resin specification 1785. All pipe must meet requirements as set forth in Federal Specification PS-21-70 (Solvent-Weld Pipe).
5. PVC solvent-weld fittings shall be Schedule 40, 1-1/2" H-NSF approved conforming to ASTM resin specification D2466.
6. Solvent recorer and primer for PVC solvent-weld pipe and fittings shall be of type and installation method prescribed by the manufacturer.
7. All PVC pipe must bear the following markings:
a. Manufacturers name
b. Nominal pipe size
c. Schedule or class
d. Pressure rating in P.S.I.
e. NSF (National Sanitation Foundation) approval
f. Date of extrusion
g. All fittings shall bear the manufacturers name or trademark, material designation, size applicable I.P.S. schedule and NSF seal of approval.
- C. PVC Non-Pressure Lateral Line Piping:
1. Non-pressure buried lateral line piping shall be PVC class 200 with solvent-weld joints.
2. Pipe shall be made from NSF approved, Type II, Grade II PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension ratio.
3. Except as noted in paragraph 1 and 2 of section 2.01C, all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as set forth in section 2.01D of these specifications.
- D. Brass Pipe and Fittings:
1. Where indicated on the drawings, use red brass screened pipe conforming to Federal Specification number WWP-521.
2. Fittings shall be red brass conforming to Federal Specification number WWP-480.
E. Galvanized Pipe Fittings:
1. Where indicated on the drawings, use galvanized steel pipe ASA Schedule 40 mild steel screened pipe.
2. Fittings shall be medium galvanized screwed beaded malleable iron. Galvanized couplings may be mechanical coupling.
3. All galvanized pipe and fittings installed below grade shall be painted with two (2) coats of Koppers number 50 Bitumastic.
F. Gate Valves:
1. Gate Valves 3 inch and smaller shall be 125 lb. S.W.P. bronze gate valve with screw-in bonnet, non-rising stem and solid wedge disc.
2. Gate valves 3 inch and smaller shall have threaded ends and shall be equipped with a bronze handwheel.
3. Gate valves 3 inch and smaller shall be similar to those manufactured by Nilbro or approved equal.
4. All gate valves shall be installed per installation detail.
G. Quick Coupling Valves:
1. Quick coupling valves shall have a brass two-piece body designed for working pressure of 150 P.S.I., operable with quick coupler. Key size and type shall be as shown on plans.
H. Backflow Prevention Units:
1. Backflow preventers and or vacuum breakers shall be of size and type as indicated on the drawings. All sprinkler irrigation systems that are using water from the potable water system shall require backflow prevention. All backflow prevention units shall be installed in accordance with the requirements set forth by local codes and the County Health Department.
2. Sprinkler irrigation systems which use water from the reclaimed water system will not require backflow prevention. However, all pressure main line piping receiving water from the reclaimed water system shall be of an approved type of purple pipe approved warning tape. Refer to reclaimed water notes for additional information.
I. Anti-Drain Valves:
1. Anti-drain valves shall be of heavy duty virgin PVC construction with F.I.P. thread inlet and outlet. Internal parts shall be stainless steel and neoprene. Anti-drain valve shall be held adjustable against draught from 5 to 40 feet of head. Anti-drain valve shall be similar to the Valcon ADV or approved equal.
J. Control Wiring:
1. Connections between the automatic controllers and the electric control valves shall be made with direct burial copper wire AWG-UF-600 volt. Pilot wires shall be a different color wire for each automatic controller. Common wires shall be white with a different color stripe for each automatic controller. Install in accordance with valve manufacturers specification and wire chart. In no case shall wire size be less than number 14.
2. Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible.
3. Where more than one (1) wire is placed in a trench, the wiring shall be lapped together at intervals of ten (10) feet.
4. An expansion cut should be provided within three (3) feet of each wire connection and at least every one hundred (100) feet of wire length on runs more than one hundred (100) feet in length. Expansion cuts shall be formed by wrapping at least five (5) turns of wire around a one-inch in diameter pipe then withdrawing the pipe.
5. All splices shall be made with Scotch-Lok #5776 Connector Sealing Packs. Per-The wire connector, or approved equal. Use on splice per connector sealing pack.
6. Field splices between the automatic controller and electrical control valves will not be allowed without prior approval of the Architect.
K. Automatic Controllers:
1. Automatic controllers shall be of size and type shown on the plans.
2. Final location of automatic controllers shall be approved by the Owners authorized representative.
3. Unless otherwise noted on the plans, the 120v. volt electrical power to the automatic controller location to be furnished by others. The final electrical hook-up shall be the responsibility of the irrigation contractor.

L. Electric Control Valves

1. All electric control valves shall be the same manufacturer as the automatic controllers, or per plan.
2. All electric control valves shall have a manual flow adjustment.
3. Provide and install one control valve box for each electric control valve.

M. Control Valve Boxes:

1. Use 9 1/2 inch x 24 inch round box for all gate valves. Books number 9 or approved equal.
2. Use 9 1/2 inch x 16 inch x 11 inch rectangular box for all electrical control valves. Carson Industries 1419-12B or approved equal.

N. Sprinkler Heads:

1. All sprinkler heads shall be of the same size, type and deliver the same rate of precipitation with diameter (or radius) of throw, pressure, and discharge as shown on the plans and or specified in these special provisions.
2. Spray heads shall have a screen adjustment.
3. Rear units shall be fabricated in accordance with the details shown on the plans.
4. Rear nipples for all sprinkler heads shall be of the same size as the rear opening in the sprinkler body.
5. All sprinkler heads of the same type shall be of the same manufacturer.
6. Overhead irrigation shall not be permitted within 24-inches of any non-permeable surface.

VII. INSPECTION

A. Site Conditions:

1. All scaled dimensions are approximate. The contractor shall check and verify all size dimensions and receive Architects approval prior to proceeding with work under this section.
2. Exercise extreme care in excavating and working near existing utilities. Contractor shall be responsible for damages to utilities which are cause by his operations or neglect. Check existing utility drawings for existing utility locations.
3. Coordinate installation of sprinkler irrigation materials, including pipe, so there shall be NO interference with utilities or other construction of difficulty planting trees, shrubs, and groundcovers.
4. The contractor shall carefully check all grades to satisfy himself that they safely proceed through starting work on the sprinkler irrigation system.

VIII. PREPARATION

- A. Physical Layout:
1. Prior to installation, the contractor shall stake out all pressure supply lines, routing and location of sprinkler heads.
2. All layout shall be approved by Architect prior to installation.
B. Water Supply:
1. Sprinkler irrigation system shall be connected to water supply point of connection as indicated on the drawings.
2. Connections shall be made at approximate locations as shown on drawings. Contractor is responsible for minor changes caused by actual site conditions.
C. Electrical Supply:
1. Electrical connections for automatic controller shall be made to electrical points of connection as indicated on the drawings.
2. Connections shall be made at approximate locations as shown on drawings. Contractor is responsible for minor changes caused by actual site conditions.

IX. INSTALLATION

- A. Trenching:
1. Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching excavation shall follow layout indicated on drawings and as noted.
2. Provide for a minimum cover of eighteen (18) inches cover for all pressure supply lines.
3. Provide for a minimum cover of twelve (12) inches for all non-pressure lines.
4. Provide for a minimum cover of eighteen (18) inches for all control wiring.
B. Backfilling:
1. The trenches shall not be backfilled until all required tests are performed. Trenches shall be carefully backfilled with the excavated materials approved for backfilling, consisting of earth, loam, sandy clay, sand, or other approved materials free from rocks or earth stones. Backfill shall be mechanically compacted in handspaced areas to a dry density equal to adjacent undisturbed soil in planting areas. Backfill will conform to adjacent grades without dips, sunken areas, humps or other surface irregularities.
2. A fine granular material backfill will be initially placed on all lines. No foreign matter larger than one-half (1/2) inch in size will be permitted in the initial backfill.
3. Flooding of trenches will be permitted only with approval of the Architect.
4. If settlement occurs and subsequent adjustments in pipe, valves, sprinkler heads, lawn or planting, or other construction area is necessary, the contractor shall make all adjustments without cost to the Owner.
C. Trenching and Backfill Under Paving:
1. Trenches located under areas where paving, asphaltic concrete or concrete will be installed shall be backfilled with sand (a layer six (6) inches below the pipe and three (3) inches above the pipe) and compacted in layers to 95 percent compaction, using manual or mechanical tamping devices. Trenches for piping shall be compacted to equal the compaction of the existing adjacent undisturbed soil and shall be left in a firm unyielding condition. All trenches shall be left flush with the adjoining grade. The sprinkler irrigation contractor shall set in place, cap and pressure test all piping under paving prior to the paving work.
2. Generally, piping under existing walks is done by jacking, boring or hydraulic driving, but where any cutting or breaking of sidewalks and/or concrete is necessary, it shall be done and replaced by the contractor as part of the contract cost. Permission to cut or break sidewalks and/or concrete shall be obtained from the Architect. No hydraulic driving will be permitted under concrete paving.
D. Assemblies:
1. Routing of sprinkler irrigation lines as indicated on the drawings is diagrammatic. Install lines (and various assemblies) in such a manner as to conform with the details per plans.
2. Install NO multiple assemblies in plastic lines. Provide each assembly with its own outlet.
3. Install all assemblies specified herein in accordance with respective detail. In absence of detail drawings or specifications pertaining to specific items required to complete work, perform such work in accordance with best standard practice with prior approval of Architect.
4. PVC pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before installation, installation and solvent welding methods shall be as recommended by the pipe and fitting manufacturer.
5. On PVC to metal connections, the contractor shall work the metal connectors first. Teflon tape or approved equal shall be used on all threaded PVC to PVC, and on all threaded PVC to metal joints. Light wrench pressure is all that is required. Where threaded PVC connections are required, use threaded PVC adapters into which the pipe may be welded.
E. Line Clearance:
All lines shall have a minimum clearance of six (6) inches from each other and from lines of other trades. Parallel lines shall not be installed directly over one another.
F. Automatic Controller:
Install as per manufacturers instructions. Remote control valves shall be connected to controller in numerical sequence as shown on the drawings.
G. High Voltage Wiring for Automatic Controller:
1. 120 volt power connection to the automatic controller shall be provided by the irrigation contractor.
2. All electrical work shall conform to local codes, ordinances, and union authorities having jurisdiction.
H. Remote Control Valves:
Install where shown on drawings and details. When grouped together, allow at least twelve (12) inches between valves. Install each remote control valve in a separate valve box. The irrigation contractor letter and the valve station number, shall be placed on a plastic identify tag and attached to the valve wires. The valve box shall be branded on the cover with the same information.
I. Flushing of System:
1. After all new sprinkler pipe lines and risers are in place and connected, all necessary diversion work shall be completed, and prior to installation of sprinkler heads, the control valves shall be opened and a full head of water used to flush out the system.
2. Sprinkler heads shall be installed only after flushing of the system has been accomplished to the complete satisfaction of the Architect.
J. Sprinkler Heads:
1. Install the sprinkler heads as designated on the drawings. Sprinkler heads to be installed in this work shall be equivalent in all respects to those itemed.
2. Spacing of heads shall not exceed the maximum indicated on the drawings. In no case shall the spacing exceed the maximum recommended by the manufacturer.

X. TEMPORARY REPAIRS

The Owner reserves the right to make temporary repairs as necessary to keep the sprinkler system equipment in operating condition. The exercise of this right by the Builder-Developer shall not relieve the contractor of his responsibilities under the terms of the guarantee as herein specified.

XI. EXISTING TREES

Where it is necessary to excavate adjacent to existing trees, the contractor shall use all possible care to avoid injury to trees and tree roots. Excavation in areas where two (2) inch and larger roots occur shall be done by hand. All roots two (2) inches and larger in diameter, except directly in the path of pipe or conduit, shall be turned under and shall be heavily wrapped with burlap to prevent scarring or excessive drying. Where a ditching machine is run close to trees having roots smaller than two (2) inches in diameter, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts thorough. Roots one (1) inch and larger in diameter shall be painted with two coats of Tree Seal, or equal. Trenches adjacent to trees should be closed within twenty-four (24) hours, and where this is not possible, the side of the trench adjacent to the tree shall be kept shaded with burlap or canvas.

XII. FIELD QUALITY CONTROL

- A. Adjustment of the System:
1. The contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walks, roadways, and buildings as much as possible.
2. It is determined that adjustments in the irrigation equipment will provide proper and more adequate cover, the contractor shall make such adjustments prior to planting. Adjustments may also include changes in nozzle sizes and depths of arc as required.
3. Lowering raised sprinkler heads by the contractor shall be accomplished within ten (10) days after notification by Owner.
4. All sprinkler heads shall be set perpendicular to finished grades unless otherwise designated on the plans.
B. Testing of Irrigation System:
1. The contractor shall request the presence of the Architect in writing at least 72 hours in advance of testing.
2. Test all pressure lines under hydrostatic pressure of 150 lbs. per square inch and prove watertight. Note: Testing of pressure main lines shall occur prior to installation of electric control valves.
3. All piping under paved areas shall be tested under hydrostatic pressure of 150 lbs. per square inch and proved watertight prior to paving.
4. Sustain pressure in lines for not less than two (2) hours. If leaks develop, replace joints and repair test until the system is proven watertight.
5. All residual stress shall be the Owner's. Only in the presence of the Architect, or other duly tested and approved in writing.
6. Furnish necessary force pump and all other test equipment.
7. When the sprinkler irrigation system is completed, perform a coverage test in the presence of the Architect to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all work required to correct any inadequacies of coverage due to deviations from plans, or where the system has been willfully installed as indicated on the drawings when it is obviously inadequate, without bringing this to the attention of the Architect. This test shall be accomplished before any ground cover is planted.
8. Upon completion of each phase of work, entire system shall be tested and adjusted to meet site requirements.

XIII. MAINTENANCE

- A. The entire sprinkler irrigation system shall be under full automatic operation for a period of seven (7) days prior to any planting.
B. The Architect reserves the right to waive or shorten the operation period.

XIV. CLEAN-UP


Clean-up shall be made as each portion of work progresses. Refuse and excess dirt shall be removed from the site, all walks and paving shall be broomed or washed down, and any damage sustained on the work of others shall be repaired to original conditions.

XV. FINAL INSPECTION PRIOR TO ACCEPTANCE

- A. The contractor shall operate each system in its entirety for the Architect at time of final satisfaction of the Architect.
B. The contractor shall show evidence to the Architect that the Owner has received all accessories, charts, record drawings, and equipment as required before final inspection can occur.
C. The contractor shall be responsible for notifying the Architect in advance for the following inspections, according to the time indicated:
1. Pre-job Conference - 7 days
2. Pressure supply line installation and testing - 72 hours
3. Automatic controller installation - 72 hours
4. Control line and sprinkler installation - 72 hours
5. Coverage test - 72 hours
6. Final inspection - 7 days
B. When inspections have been conducted by other than the Architect show evidence of when and by whom these inspections were made.
C. No inspection will commence without as-built drawings. In the event the contractor calls for an inspection without as-built drawings, without compiling previously noted corrections, or without preparing the system for inspection, he shall be responsible for reimbursing the Architect at the rate of \$75.00 per hour, portal to portal (plus transportation costs) for the inconvenience. No further inspections will be scheduled until this charge has been paid.

XVI. FINAL INSPECTION SCHEDULE

- A. Contractor shall be responsible for notifying the Architect in advance for the following inspections, according to the time indicated:
1. Pre-job Conference - 7 days
2. Pressure supply line installation and testing - 72 hours
3. Automatic controller installation - 72 hours
4. Control line and sprinkler installation - 72 hours
5. Coverage test - 72 hours
6. Final inspection - 7 days
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	16949-19555 W SHERMAN WAY LOS ANGELES, CA 91406	100 FRANKLIN COURT GLENDALE, CA 91205	OWNER	PROJECT	DRAWING TITLE IRRIGATION SPECIFICATIONS
REGISTRATION No. 87	16949-19555 W SHERMAN WAY LOS ANGELES, CA 91406 sam@shermane.com sam@shermane.com@gmail.com <small>SHERMAN ENGINEERS INC. IS AN EQUAL OPPORTUNITY EMPLOYER. THE FIRM'S POLICY IS TO EMPLOY AND PROMOTE INDIVIDUALS WITHOUT REGARD TO RACE, COLOR, SEX, RELIGION, NATIONAL ORIGIN, ANCESTRY, AGE, OR HANDICAP. CONTRACTING WITH ANY WORKER OR EMPLOYEE OF ANOTHER FIRM OR CONTRACTOR WHICH HAS BEEN DETERMINED TO BE INVOLVED IN UNLAWFUL DISCRIMINATION.</small>	16949-19555 W SHERMAN WAY LOS ANGELES, CA 91406	100 FRANKLIN COURT GLENDALE, CA 91205	OWNER	DRAWING TITLE IRRIGATION SPECIFICATIONS
DATE: 11/26/2022 SCALE: 1"=10'-0" DRAWN: SA APPROVED: 22-037 JOB: 22-037 SHEET: L-11 11 OF 13	16949-19555 W SHERMAN WAY LOS ANGELES, CA 91406	100 FRANKLIN COURT GLENDALE, CA 91205	OWNER	PROJECT	DRAWING TITLE IRRIGATION SPECIFICATIONS

PLANTING SPECIFICATIONS

I. SCOPE

Furnish all material, labor, transportation, equipment, and property to complete the landscaping of the planting areas shown on the drawings or reasonably implied to complete the construction, included as a part of the work of this Section, but not necessarily limited by it, are the following items:

- A. Pre-planting weed control of all planting areas, including the addition of soil amendments.
- B. Soil preparation and fine grading of all planting areas, including the addition of soil amendments.
- C. Preparation of all planting and specimen tree holes.
- D. Furnishing and installation of all plant materials, lawns, ground covers, mulches, etc.
- E. Furnishing and installation of all required planting backfill materials, tree stakes, guy wires, and miscellaneous material.
- F. Providing maintenance for ninety (90) continuous calendar days after acceptance of construction.
- G. Guarantee and replacement.

II. MATERIALS

All materials shall be of standard, approved and first grade quality and shall be in prime conditions when installed and accepted. Any commercially processed or packaged material shall be delivered to the site in the original unopened container bearing the manufacturer's guaranteed analysis. Contractor shall supply Owner with a sample of all supplied materials accompanied by analytical data from an approved laboratory source illustrating compliance or bearing the manufacturer's guaranteed analysis.

- A. Topsoil: as required, shall be obtained from on site excavations.
- B. Soil Conditioners and Fertilizers:

- 1. Nitrogen stabilized organic amendment.
- Amendment shall be fir or cedar sawdust; Source shall be derived from wood of fir or wood of cedar containing the following physical properties:

Percent Passing	Sieve Size
95-100	6.33 mm (1/4 inch)
80-100	2.38 (No. 8, 8 mesh)
0-30	500 Micron (No. 35, 32 mesh)

Chemistry shall be:

- Nitrogen Content (dry weight) - 0.65% - 0.84%
- Iron Content - Minimum 0.08 % dilute acid soluble Fe₂ on dry weight basis.
- Soluble Salts - Maximum 3.5 Millimhos centimeter at 25 degrees centigrade as determined by saturation extract method.

- 2. Other Materials:

Fertilizer shall be delivered to the site in the original unopened containers and of commercial grade, uniform in composition, dry and free flowing, of the following analysis:

- a. Gro-Power Plus
- b. Gro-Power planting tablets
- c. As Specified

C. Tree Support:

Materials for staking and guying shall be as follows:

- 1. Support stakes shall be lodge pole pine stakes. Length as determined to facilitate upright stand as described.
- 2. Ties: Elastic webbing, polyethylene tape, or Owner approved tie.
- 3. Guy wire, steel guy anchor and plastic hose tie of adequate size and length to safely support tree.

D. Miscellaneous Materials:

- Sand: Washed river sand or equal.
- Post Emergent Weed Killer: Paraquat, Roundup, or Owner approved herbicide.
- Tree Wound Paint: As approved.
- Fiber: Wood cellulose mulching fiber Comweb or equal.
- Chemical Additive: Seed germinating additive CPA, 4000 or equal.

1. Nomenclature:
The scientific and common names of plants herein specified conform with the approved names given in A Checklist of Woody Ornamental Plants in California, Manual 32, published by the University of California School of Agriculture (1963).

2. Plant List for Bid:

The contractor is herein referred to the landscape plans for the plant material selection and the requirements of this section of the specifications. Container sizes, unless otherwise stated, have been used to indicate the size of the plant material required.

3. Labeling/Delivery:

Each group of plant materials delivered to the site shall be clearly labeled as to species, variety and nursery source, however, determination of plant species or variety will be made by the Landscape Architect and his decision will be final. The contractor shall notify the Landscape Architect 72 hours in advance of delivery of all plant materials and shall submit an itemized list of the plants in each delivery.

As a convenience to the contractor, the Landscape Architect upon request, will inspect box size material at the source nursery prior to delivery at the cost of the contractor. Said source nurseries shall be reasonably close to the project site as determined by the Landscape Architect. Plant material so inspected shall arrive at the project site in an undamaged condition.

4. Quality and Size:

Plants shall be in accordance with the California State Department of Agriculture's regulation for nursery inspections, rules and grading. All plants shall have a normal habit of growth and shall be sound, healthy, vigorous, and free of insect infestations, plant diseases, sun scalds, frost abrasions or other objectionable disfigurements. Tree trunks shall be sturdy and well hardened off. All plants shall have normally well - developed branch systems and vigorous root systems which are not rot or rot bound. In the event of disagreement as to condition of root system, the root condition of the plants furnished by the contractor in containers will be determined by removal of earth from the roots of not less than two plants or more than two percent of the total number of plants of each species or variety. Where container grown plants are from several sources, the roots of not less than two plants of each species or variety from each source will be inspected. In case the sample plants inspected are found to be defective, the Landscape Architect reserves the right to reject the entire lot or lots of plants represented by the defective samples. The Landscape Architect is the sole judge as to acceptability. Any plants rendered unsuitable for planting because of this inspection will be considered as samples and will be provided at the expense of the contractor.

The size of the plants will correspond with that normally expected for species and variety of commercially available nursery stock, or as specified in the Special Conditions or drawings. The minimum acceptable size of all plants, measured before pruning with the branches in normal position, shall conform with the measurements, if any specified on the drawings in the list of plants to be furnished. Plants larger in size than specified may be used with the approval of the Landscape Architect, but the use of larger plants will make no change in contract price. If the use of larger plants is approved, the ball of earth or spread of roots for each plant will be increased proportionately.

5. Rejection or Substitutions:

All plants not conforming to the requirements herein specified, shall be considered defective, and such plants, whether in place or not, shall be marked as rejected and immediately removed from the site of the work and replaced with new plants at the contractor's expense. The plants shall be of the species, variety, size and condition specified herein or as shown on the drawings. Under no condition will there be any substitution of plants or sizes of those listed on the accompanying plans, except with the expressed consent of the Landscape Architect.

6. Pruning:

At no time shall trees or plant material be pruned, trimmed or topped prior to delivery and any alteration of their shape shall be conducted only with the approval and when in the presence of the Landscape Architect and as noted in the Planting Specifications.

7. Protection:

All plants at all times shall be handled and stored so that they are adequately protected from drying out, from wind burn, or from any other injury.

8. Right of Inspection:
The Landscape Architect reserves the right to approve or reject at any time upon delivery or during the work any or all plant material regarding size, variety or condition.

E. Seed:

All seed used shall be labeled and shall be furnished in sealed standard containers with signed copies of a statement from the vendor, certifying that each container of seed delivered is fully labeled in accordance with the California State Agricultural Code and is equal to or better than the requirements of these specifications.

F. Hydro-Mulching Materials:

The hydro-mulch mix shall consist of wood cellulose mulching fiber, Comweb mulching fiber or equal.

G. Hydro-Mulching Application:

Equipment: Hydraulic equipment used for the application of the fertilizer, seed and slurry of prepared wood pulp shall be of the Super Hydroseeder type as approved by the Landscape Architect. This equipment shall have a built-in agitation system and operating capacity sufficient to agitate, suspend and homogeneously mix a slurry containing not less than 40 lbs. of fiber much plus a combined total of 7 lbs. fertilizer solids for each 100 gallons of water. The slurry distribution lines shall be large enough to prevent stoppage and shall be equipped with a set of hydraulic spray nozzles which will provide a continuous non-fluctuating discharge. The slurry tank shall have a minimum capacity of 1,500 gallons and shall be mounted on a traveling unit, either self-propelled or drawn by a separate unit, which will place the slurry tank and spray nozzles within sufficient proximity to the areas to be seeded.

III. GRADING AND SOIL PREPARATION

The general subsoil grading, deep ripping, tilling, and establishment of the rough grade will be done by others, under a separate contract. Other work such as fine grading, cultivation (and in some cases, addition of topsoil) and/or soil conditioners are required to prepare the final grade. After approximate finished grades have been established, soil shall be conditioned and fertilized in the following manner. Materials shall, at the following rates, be uniformly spread and cultivated thoroughly by means of mechanical tiller into the top 6 inch of soil per 1000 square feet:

Application Rates:
See Soil Notes

- 4 cu. Yards of Nitrogen Stabilized Organic Amendment

All soil areas shall be compacted and settled by application of heavy irrigation to a minimum depth of twelve (12) inches.

A. Final Grades:

After the foregoing specified deep watering, minor modifications to grade may be required to establish the final grade. These areas shall not be worked until the moisture content has been reduced to a point where working it will not destroy soil structure.

- 1. Finish grading shall insure proper drainage of the site.
- 2. All areas shall be graded so that the final grades will be one inch below adjacent paved areas, sidewalks, valve boxes, headers, clean-outs, drains, manholes, etc.
- 3. Surface drainage shall be away from all building foundations.
- 4. Eliminate all erosion scars.
- 5. For soils less than 6% organic matter in the top 6 inches of soil, compost at a rate of a minimum of four cubic yards per 1,000 square feet of permeable area shall be incorporated to a depth of six inches into the soil.

IV. PLANTING INSTALLATION

Actual planting shall be performed during those periods when weather and soil conditions are suitable and in accordance with locally accepted practices, as approved by the Landscape Architect.

A. Weed Control:

After soil preparation and establishment of final grades prior to any planting, the contractor shall irrigate thoroughly for a period of time, two (2) to three (3) weeks or until weed seeds have germinated. When there is sufficient weed seed germination, the contractor shall apply a post-emergent weed killer, according to the directions of the manufacturer. The contractor shall then wait an additional one (1) week to allow the weed killer to dissipate, then plant as indicated in the plans and specifications.

B. Layout of Major Plantings:

Locations for plants and outlines of areas to be planted shall be marked on the ground by the contractor before any pits are dug. All such locations shall be approved by the Landscape Architect. If an underground construction or utility line is encountered in the excavation or planting areas, other locations for planting may be selected by the Landscape Architect.

C. Planting of Trees, Shrubs and Vines:

- 1. Excavation for planting: Excavation for planting shall include the stripping and stacking of all acceptable topsoil encountered within the areas to be excavated for trenches, tree holes, plant pits and planting beds.
- a. Protect all areas from excessive compaction when trucking plants or other material to the planting site.
- b. All excavated holes shall have vertical sides with roughened surfaces and shall be of a size that is twice the diameter and 6 inch minimum deeper than the root ball.
- c. Excess soil generated from the planting holes and not used as backfill or in establishing the final grades shall be removed from the site.

2. Planting:

No planting shall be done in any area until the area concerned has been satisfactorily prepared in accordance with these specifications.

Only as many plants as can be planted and watered on that same day shall be distributed in planting area.

Containers shall be opened and plants shall be removed in such a manner that the ball of earth surrounding the roots is not broken, and they shall be planted and watered as herein specified immediately after removal from the containers. Containers shall not be opened prior to placing the plants in the planting area.

Container plants shall be backfilled with:

See Soil Notes

Palm Backfill:

- 8 parts by volume washed river sand
- 2 parts by volume nitrogen stabilized organic amendment
- 10 lbs. Gro-Power palm fertilizer per cubic yard of mix
- 2 lbs. Agricultural gypsum per cubic yard of mix

All plants which settle deeper than specified above shall be raised to the correct level. After the plant has been placed, additional backfill shall be added to the hole to cover approximately one-half of the height of the root ball. At this stage water shall be added to the top of the partly filled hole to thoroughly saturate the root ball and adjacent soil.


After the water has completely drained, planting tablets shall be placed as indicated below:

- 3 tablets per one gallon container
- 8 tablets per five gallon container
- 15 tablets per fifteen gallon container
- 16 tablets per 20 inch and 24 inch box
- 18 tablets per 30 inch box
- 20 tablets per 36 inch box
- 22 tablets per 42 inch box
- 24 tablets per 48 inch box

Larger sizes: For each half inch caliper measured 14 inches above soil level use 3 additional tablets. The remainder of the hole shall then be backfilled.

Planting tablets shall be set with each plant on the top of the root ball while the plants are still in their containers so the required number of tablets to be used in each hole can be easily verified.

After backfilling, an earthen basin shall be constructed around each plant. Each basin shall be of a depth sufficient to hold at least two inches of water. Basins shall be of a size suitable for the individual plant. In no case shall a basin for a fifteen gallon plant be less than four feet in diameter, a five gallon plant, less than three feet in diameter, and a one gallon plant, less than two feet in diameter. The basins shall be constructed of amended backfill materials.

 <p>10847 Westcott Ave Sherman, CA 91205 ShermanEng@aol.com shermaneng@gmail.com</p> <p>REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA NO. 61291 DATE OF EXPIRATION 06/30/2016 SHERMAN ENGINEERING INC. SHERMAN, CALIFORNIA SHERMAN ENGINEERING INC. SHERMAN, CALIFORNIA</p>	<p>OWNER</p> <p>100 FRANKLIN COURT GLENDALE, CA 91205</p>
	<p>PROJECT</p> <p>16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406</p>
<p>DRAWING TITLE</p> <p>PLANTING SPECIFICATIONS</p>	
<p>DATE: 11/26/2022</p> <p>SCALE: 1"=10'-0"</p> <p>DRAWN: SA</p> <p>APPROVED:</p> <p>JOB: 22-037</p> <p>SHEET: L-12</p> <p>12 OF 13</p>	

3. Pruning: Pruning shall be limited to the minimum necessary to remove injured twigs and branches, and to compensate for loss of roots during transplanting, but never to exceed one-third of the branching structure. Upon approval of the Landscape Architect, pruning may be done before delivery of plants, but not before plants have been inspected and approved. Cuts over three-quarters of an inch in diameter shall be painted with tree wound paint.
4. Staking and Guying: Staking of all trees shall conform to tree staking and tree guying details and as herein specified. Protective stakes may be planted with the tree, driving them into undisturbed soil at the bottom of the planting hole until 18 inches remains above ground level. Support stakes fall enough to support the particular tree shall be driven 18 inches into the soil. A line drawn between the two support stakes shall be at right angles to the most troublesome wind direction. Attach crosses to the support stakes on the leeward side of the prevailing wind. Ties shall be placed as low on the trunk as possible but high enough so the tree will return to upright after deflection. To find the proper height for tie locations, hold the trunk in one hand, pull the top to one side and release. The height at which the trunk will just return to the upright when the top is released is the height at which to attach the ties. Ties are to form a loose loop around the tree trunk and auxiliary stake so that the trunk cannot work towards the support stakes. Support stakes are not to exceed 6 inches above the tie locations. The auxiliary stake shall be attached to those trees needing extra trunk support as determined by the Landscape Architect. Wind and wrap the top of the wire with friction tape. One tree of each size shall be staked and approved by the Landscape Architect prior to continued staking.

D. Ground Covers:

Ground covers will be planted in the areas indicated on the plans. Ground cover plants shall be grown in flats, peat pots, or taken as cuttings as indicated on the plans. Flat grown plants (rooted cuttings) shall remain in those flats until transplanting. The flats soil shall contain sufficient moisture so that it will not fall apart when lifting the plants. If plants from peat pots are used, the pots shall be protected at all times prior to planting to prevent unnecessary drying of the root ball. Unrooted cuttings shall be 10 inches or more in length. They shall be insect and disease free tip cuttings from healthy, vigorous and strong growing plants. Mature or brown-colored stem growths or cuttings which have been trimmed or rooted before planting will not be accepted. Cuttings shall be planted not more than 2 days after cutting and shall not be allowed to dry or wither.

1. Ground cover shall be planted in straight rows and evenly spaced, unless otherwise noted, and at intervals called out in the drawings. Triangular spacing shall be used unless otherwise noted on the plans.
2. Each rooted plant shall be planted with its appropriate amount of flat soil or in a peat pot, in a manner that will insure minimum disturbance of the root system, but in no case shall this depth be less than two nodes. To avoid drying out, plantings shall be immediately sprinkled after planting until the entire area is soaked to the full depth of each hole, unless otherwise noted on the drawings.

E. Lawn:

Lawn shall be planted by hydroseeding and sodded as indicated on the plans. All areas shall be free from weeds and weed residue.

F. Hydroseeding:

1. After soil preparation, establishment of final grades and weed control, the surface two (2) inches of soil shall be loosened by harrow rototiller and floated level and irrigated just prior to planting.
2. Preparation: The slurry preparation shall take place at the site of work and shall begin by adding water to the tank when the engine is at half throttle. When the water level has reached the height of the agitator shaft, good recirculation shall be established and at this time the seed and chemical additive shall be added. Fertilizer shall then be added followed by wood pulp mulch. The wood pulp mulch shall only be added to the mixture after the tank is at least one-third filled with water. The engine throttle shall be opened to full speed when the tank is half filled with water. All the wood pulp mulch shall be added by the time the tank is two-thirds to three-fourths full. Spraying shall commence five minutes after addition of the chemical additive when the tank is full.

Application rates:
Fiber: 1,500 lbs. per acre.

Seed: See plans

Gro-Power Plus 1,200 lbs. per acre (if area has been soil prepped, only use 400 lbs. per acre

Chemical Additives 3 gallons per acre

Urea Formaldehyde 300 lbs. per acre

3. Application: The operator shall spray the area with a uniform visible coat by using the green color of the wood pulp as a guide. The slurry shall be applied in a sweeping motion, in an arched stream so as to fall like rain allowing the wood fibers material to spread at the required rate per acre.

4. Time Limit: All slurry mixture which has not been applied within two hours after mixing will be rejected and removed from the project at the contractors expense.

5. Irrigation: Immediately after completion of hydroseeding, each area shall be irrigated. Irrigation during the germination period of the seeds shall keep the hydro-mulch moist at all times without creating run-off, erosion or over-saturation. The irrigation system is to be in operating condition and have been tested before planting is started.

V. ESTABLISHMENT AND MAINTENANCE PERIOD

The contractor shall continuously maintain all areas involved in this contract during the progress of the work and during the establishment period until final acceptance of the work by the Owner. The contractor shall request an inspection to begin the plant establishment period after all planting and related work has been completed in accordance with the Contract Documents. A prime requirement is that all lawn areas shall show an even, healthy stand of grass seedlings which shall have been mowed twice. If such criteria is met to the satisfaction of the Landscape Architect, a field notification will be issued to the contractor to establish the effective beginning date of the plant establishment and maintenance period. Any day when the contractor fails to adequately maintain plantings, replace unsalvageable plants or do weed control or other work as determined necessary by the Landscape Architect, will not be credited as one of the plant establishment working days. Improper maintenance or possible poor condition of any planting at the termination of the scheduled establishment period may cause postponement of the final completion date of the contract. Maintenance shall be continued by the contractor until all work is acceptable. In order to carry out the plant establishment work, the contractor shall furnish sufficient men and adequate equipment to perform the work during the plant establishment period. Maintenance shall be according to the following standards:

- A. All areas shall be kept free of debris and all planted areas shall be weeded and cultivated at intervals of not more than ten (10) days. Weeding, mowing, rolling, edging, trimming, fertilization, spraying and pest control, as may be required, shall be included in the establishment period.
- B. The contractor shall be responsible for maintaining adequate protection of the area. Damaged areas shall be repaired at the contractors expense.
- C. Between the 15th day and the 20th day of the establishment period, the contractor shall reseed all spots or areas within the lawn where normal turf growth is not evident.
- D. Fertilize all planting areas with the following - See soil notes.
- E. Mowing of turf will commence when the grass has reached a height of two inches. The height of cut will be 1 to 1-1/2 inches. Mowing will be at least weekly after the first cut. Turf must be well established and free of bare spots and weeds to the satisfaction of the Landscape Architect prior to final acceptance.
- F. The contractor's maintenance period will be extended if these provisions are not filed.
- G. Clean-up: The contractor shall keep the premises free from accumulation of waste materials and debris. After all planting operations have been completed, the contractor shall remove all trash, excess soil, empty plant containers, tools, and equipment used in this work and/or any other debris resulting from his work on the site. Any scars, ruts, or rans in the area caused by the landscape work shall be repaired at the contractors expense. The contractor shall leave the site area broom clean and shall wash down all paved areas within the contract area leaving the premises in a clean condition.

GUARANTEE AND REPLACEMENT

- A. All plant material installed under the contract shall be guaranteed against any and all poor, inadequate or inferior materials and/or workmanship for a period of one year. Any plant found to be dead or in poor condition due to faulty materials or workmanship as determined by the Landscape Architect, shall be replaced by the contractor at his expense.
- B. Any materials found to be dead, or in poor condition during the establishment period shall be replaced immediately. The Landscape Architect shall be the sole judge as to the condition of material. Material to be replaced within the guarantee period shall be replaced by the contractor within 15 days of written notification by the Owner.
- C. Replacement shall be made in the same manner as required for original plantings. Materials and labor involved in the replacing of material shall be supplied by the contractor at no additional cost to the Owner.

VI. INSPECTIONS

Normal progress inspection shall be requested from the Landscape Architect at least 72 hours in advance of an anticipated inspection. An inspection will be made by the Landscape Architect on each of the steps listed below. The contractor will not be permitted to initiate the succeeding steps of work until he has received written approval to proceed by the Owner.

- A. Immediately prior to the commencement of the work on this section
 - B. Completion of fine grading.
 - C. Completion of soil conditioning.
 - D. Prior to application of post-emergent weed killers.
 - E. Pre or post-delivery of all plant material.
 - F. Completion of major plant layout.
 - G. Prior to hydroseeding or installation of sod.
 - H. Commencement of maintenance.
 - I. Completion of first 30 day maintenance period.
- Final Acceptance of the Project: Prior to the date of the final inspection, the contractor shall acquire from the Owner approved mylar prints, and finally record from the job record set all changes made during construction, label said prints As-Built, and deliver to the Landscape Architect. Prior to the date of final inspection, the contractor shall deliver to the Landscape Architect the Landscape and Irrigation Guarantee as required.

SOIL NOTES

1. Soil Preparation - add 50 lbs. of Agricultural Gypsum 1,000 sq. ft.
2. Backfill shall consist of the following:
 - 7 parts native on site soil, by volume
 - 3 parts nitrized shavings, by volume 16 lbs. Gro-power Plus per cubic yard of mix
3. Hydro-seeding - For already soil prepared areas, apply 280 lbs. Gro-power Hi-Nitrogen per acre.
4. Maintenance - Feed with 20 lbs. Gro-power Plus 1,000 sq. ft. on days 43 and 83 of maintenance.

AGRONOMIC SOIL REPORT

Contractor shall obtain an agronomic soil report prior to start of construction, this report is required for pre-installation meeting along with all it's recommended material being on-site for inspection prior to beginning work.

NOTES

The above materials are for bid purposes only. The exact materials will be determined after the grading is completed, along with a soils test by the Landscape Contractor

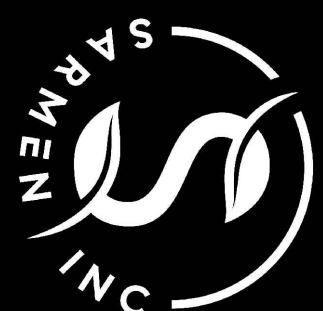

	10947 Westcott Ave Studio City, CA 91604 ShermanInc@gmail.com Sherman Inc. All rights reserved. THESE ARE 27 DRAWINGS AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER USE OF THESE DRAWINGS WITH ANY WORK OTHER THAN THAT WHICH HAS BEEN REVEALED IN THESE DRAWINGS. ANY REVISIONS OR ADDITIONS SHALL BE MADE IN WRITTEN NOTIFICATION OF THE ARCHITECT.	OWNER 100 FRANKLIN COURT GLENDALE, CA 91205	PROJECT 16949-19555 W. SHERMAN WAY LOS ANGELES, CA 91406	DRAWING TITLE PLANTING SPECIFICATIONS
	DATE: 11/26/2022 SCALE: 1"=10'-0" DRAWN: S.A. APPROVED: JOB #: 22-037 SHEET: L-13 13 OF 13			

EXHIBIT C

Environmental Documents (ENV-2022-7855-MND)



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

Mitigated Negative Declaration

16949-16955 Sherman Way Project

Case Number: ENV-2022-7855-MND

Project Location: 16949-16955 West Sherman Way, Los Angeles, California, 91405

Community Plan Area: Reseda - West Van Nuys

Council District: 6

Project Description: The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. There are no protected tree species associated with the proposed project; there are eight (8) unprotected trees on the subject site and four (4) street trees. The project is expected to require 23,300 cubic yards of export.

PREPARED BY:

The City of Los Angeles
Department of City Planning

APPLICANT:

Egish Kuiumjian
Lion Signature, Inc.

October 2023

INITIAL STUDY

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- Appendix A: CalEEMod Air Quality, Greenhouse Gas, and Noise Study for a Multifamily Residential Development in Los Angeles**
- Appendix B: Tree Disclosure Statement**
- Appendix C: Geotechnical Report and Soils Approval Letter**
- Appendix D: Noise Study**
- Appendix E: Transportation Analysis Documents**

INITIAL STUDY

1 INTRODUCTION

This Initial Study (IS) document evaluates potential environmental effects resulting from construction and operation of the proposed **16949-16955 Sherman Way Project** (“Project”). The proposed Project is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). Therefore, this document has been prepared in compliance with the relevant provisions of CEQA and the State CEQA Guidelines as implemented by the City of Los Angeles (City). Based on the analysis provided within this Initial Study, the City has concluded that the Project will not result in significant impacts on the environment. This Initial Study and Mitigated Negative Declaration are intended as informational documents, and are ultimately required to be adopted by the decision maker prior to project approval by the City.

1.1 PURPOSE OF AN INITIAL STUDY

The California Environmental Quality Act was enacted in 1970 with several basic purposes: (1) to inform governmental decision makers and the public about the potential significant environmental effects of proposed projects; (2) to identify ways that environmental damage can be avoided or significantly reduced; (3) to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of feasible alternatives or mitigation measures; and (4) to disclose to the public the reasons behind a project’s approval even if significant environmental effects are anticipated.

An application for the proposed project has been submitted to the City of Los Angeles Department of City Planning for discretionary review. The Department of City Planning, as Lead Agency, has determined that the project is subject to CEQA, and the preparation of an Initial Study is required.

An Initial Study is a preliminary analysis conducted by the Lead Agency, in consultation with other agencies (responsible or trustee agencies, as applicable), to determine whether there is substantial evidence that a project may have a significant effect on the environment. If the Initial Study concludes that the Project, with mitigation, may have a significant effect on the environment, an Environmental Impact Report should be prepared; otherwise the Lead Agency may adopt a Negative Declaration or a Mitigated Negative Declaration.

This Initial Study has been prepared in accordance with CEQA (Public Resources Code §21000 et seq.), the State CEQA Guidelines (Title 14, California Code of Regulations, §15000 et seq.), and the City of Los Angeles CEQA Guidelines (1981, amended 2006).

1.2. ORGANIZATION OF THE INITIAL STUDY

This Initial Study is organized into four sections as follows:

1 INTRODUCTION

Describes the purpose and content of the Initial Study, and provides an overview of the CEQA process.

2 EXECUTIVE SUMMARY

Provides Project information, identifies key areas of environmental concern, and includes a determination whether the project may have a significant effect on the environment.

3 PROJECT DESCRIPTION

Provides a description of the environmental setting and the Project, including project characteristics and a list of discretionary actions.

4 EVALUATION OF ENVIRONMENTAL IMPACTS

Contains the completed Initial Study Checklist and discussion of the environmental factors that would be potentially affected by the Project.

INITIAL STUDY

2 EXECUTIVE SUMMARY

PROJECT TITLE	16949-16955 SHERMAN WAY PROJECT
ENVIRONMENTAL CASE NO.	ENV-2022-7855-MND
RELATED CASES	CPC-2022-7854-ZCJ-SPR-WDI-HCA

PROJECT LOCATION	16949-16955 WEST SHERMAN WAY
COMMUNITY PLAN AREA	RESEDA - WEST VAN NUYS
GENERAL PLAN DESIGNATION	NEIGHBORHOOD OFFICE COMMERCIAL
ZONING	CR-1VL, (Q)C1-1VL & P-1VL
COUNCIL DISTRICT	6

LEAD AGENCY	CITY OF LOS ANGELES
STAFF CONTACT	ESTHER AHN
ADDRESS	200 NORTH SPRING STREET, ROOM 763
PHONE NUMBER	213-978-1486
EMAIL	ESTHER.AHN @LACITY.ORG

APPLICANT	EGISH KUIUMJIAN, LION SIGNATURE, INC.
ADDRESS	100 FRANKLIN COURT, GLENDALE CA 91205
PHONE NUMBER	818-535-5287

PROJECT DESCRIPTION

The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. There are no protected tree species associated with the proposed project; there are eight (8) unprotected trees on the subject site and four (4) street trees. The project is expected to require 23,300 cubic yards of export.

(For additional detail, see "Section 3. PROJECT DESCRIPTION").

ENVIRONMENTAL SETTING

The subject property is a flat, 49,333-foot rectangular lot with a 170-foot frontage along the north side of Sherman Way and Cantlay Street, and a 292-foot frontage along the east side of Genesta Avenue. The subject property is currently improved with an existing 4,212 square-foot commercial building and a large surface parking lot.

The project site is zoned P-1VL, CR-1VL, and (Q)C1-1VL and is located within the Reseda – West Van Nuys Community Plan which designates the subject property for Neighborhood Office Commercial land uses corresponding to the C1, C1.5, C2, C4, RAS3, RAS4, and P Zones. The project site is not located within the boundaries of or subject to any specific plan, community design overlay, or interim control ordinance.

The subject property is not located within a Hazardous Waste Site, Methane Hazard Site, Alquist-Priolo Fault Zone, Preliminary Fault Rupture Study Area, Landslide Area, Very High Fire Hazard Severity Zone, Flood Zone, BOE Special Grading Area, Liquefaction Area, High Wind Velocity Area, Tsunami Inundation Zone, or Hillside Area. The subject property is subject to a Horizontal Surface Area Airport Hazard and Housing Element Inventory of Sites (ZI-2512). The nearest fault zone is the Northridge Fault which is approximately 8.87 kilometers away.

Surrounding properties are within the P-1VL, (Q)P-1VL, (Q)CR-1VL, C2-1VL, R1-1, R1P-1VL, (Q)RD3-1, and OS-1XL Zones. The subject property shares a common property line to the east with a C2-zoned lot that is developed with a single-story commercial building currently occupied by American Profession Ambulance. Properties to the south, across Sherman Way, include a median zoned OS-1XL and properties zoned C2-1VL, P-1VL, (Q)P-1VL, R1P-1VL, and (Q)CR-1VL which are developed with commercial buildings containing office space, auto repair uses, and a pre-school. Properties to the west (along Genesta Avenue) and north (across Cantlay Street) are zoned R1-1 and are developed with single-family residential uses.

(For additional detail, see "Section 3. PROJECT DESCRIPTION").

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED

(e.g. permits, financing approval, or participation agreement)

None.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities / Service Systems |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Noise | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Mandatory Findings of Significance |

DETERMINATION

(To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

Esther Ahn

PRINTED NAME



SIGNATURE

City Planner

TITLE

10/3/2023

DATE

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross referenced).
- 5) Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated
- 7) Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.
- 9) The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

INITIAL STUDY

3 PROJECT DESCRIPTION

3.1 PROJECT SUMMARY

The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. There are no protected tree species associated with the proposed project; there are eight (8) unprotected trees on the subject site and four (4) street trees. The project is expected to require 23,300 cubic yards of export.

In order to facilitate the development of the proposed mixed-use development, the applicant is requesting a Vesting Zone Change from the P-1VL, (Q)C1-1VL, and CR-1VL Zones to (T)(Q)RAS4-1VL; a Site Plan Review for a development project which creates, or results in an increase of, 50 or more dwelling units; and a Waiver of Dedication and Improvements to waive requirements for a future cul-de-sac on Cantlay Street.

3.2 ENVIRONMENTAL SETTING

3.2.1 Project Location and Existing Conditions

The subject property is a flat, 49,333-foot rectangular lot with a 170-foot frontage along the north side of Sherman Way and Cantlay Street, and a 292-foot frontage along the east side of Genesta Avenue. The subject property is currently improved with an existing 4,212 square-foot commercial building and a large surface parking lot.

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3.2.2 Surrounding Land Uses

Surrounding properties are within the P-1VL, (Q)P-1VL, (Q)CR-1VL, C2-1VL, R1-1, R1P-1VL, (Q)RD3-1, and OS-1XL Zones. The subject property shares a common property line to the east with a C2-zoned lot that is developed with a single-story commercial building currently occupied by American Profession Ambulance. Properties to the south, across Sherman Way, include a median zoned OS-1XL and properties zoned C2-1VL, P-1VL, (Q)P-1VL, R1P-1VL, and (Q)CR-1VL which are developed with commercial buildings containing office space, auto repair uses, and a pre-school. Properties to the west (along Genesta Avenue) and north (across Cantlay Street) are zoned R1-1 and are developed with single-family residential uses.

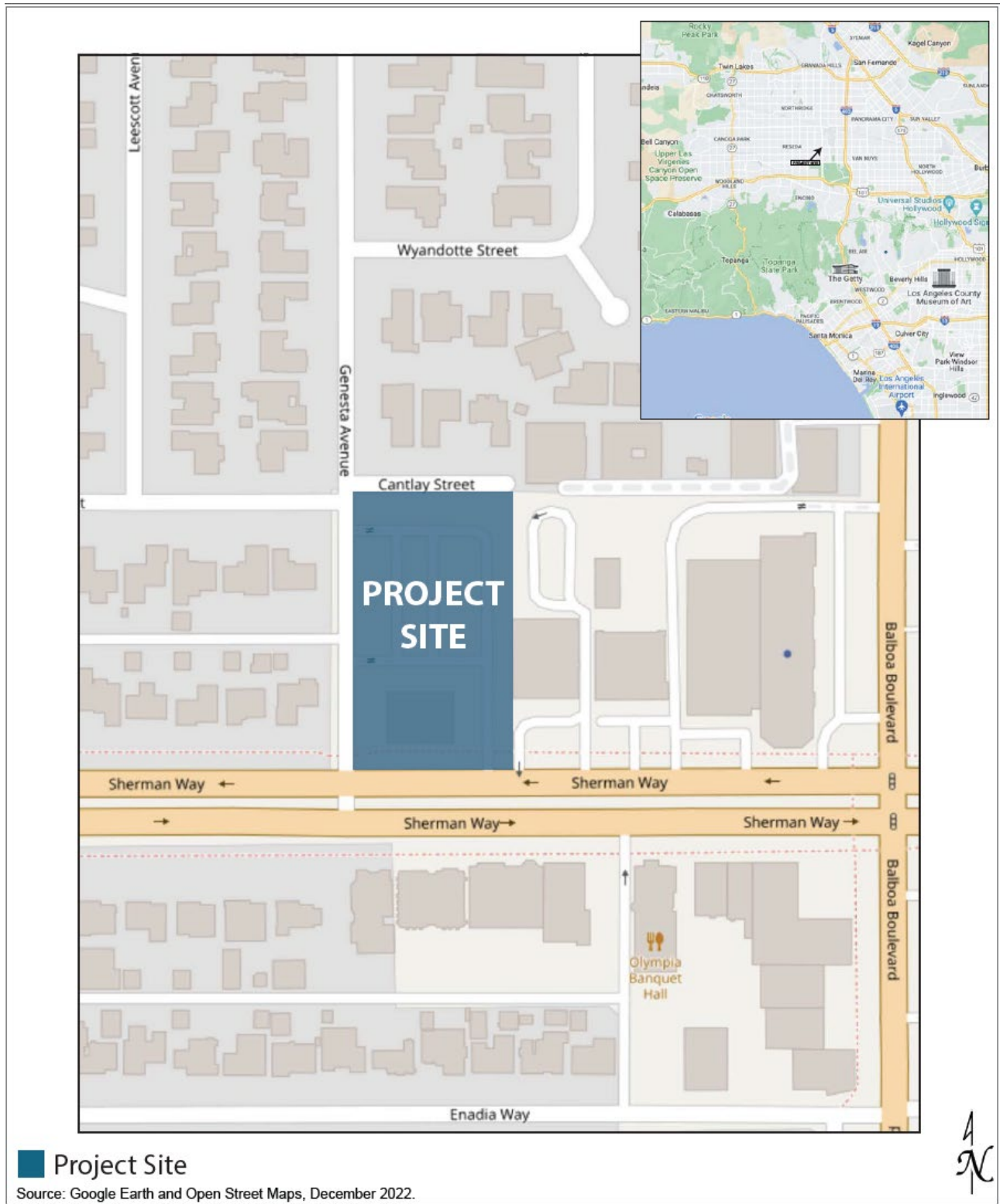


Figure A-1: Project Location - Regional Map (Google Maps)

3.3 DESCRIPTION OF PROJECT

3.3.1 Project Overview

The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development with six (6) dwelling units set aside for Extremely Low and 13 dwelling units set aside for Very Low Income Households, and 4,500 square feet of ground floor commercial. The project would have a maximum building height of 48 feet (48') and four (4) stories, including a two-level subterranean garage with 160 residential automobile parking spaces and 18 retail parking spaces. There are no protected tree species associated with the proposed project; there are eight (8) unprotected trees on the subject site and four (4) street trees. The project is expected to require 23,300 cubic yards of export.

3.4 REQUESTED PERMITS AND APPROVALS

The list below includes the anticipated requests for approval of the Project. The Mitigated Negative Declaration will analyze impacts associated with the Project and will provide environmental review sufficient for all necessary entitlements and public agency actions associated with the Project. The discretionary entitlements, reviews, permits and approvals required to implement the Project include, but are not necessarily limited to, the following:

- Pursuant to Los Angeles Municipal Code (LAMC) Section 12.32 F and 12.32 Q, a Zone Change from (Q)C1-1VL, CR-1VL, and P-1VL to (T)(Q)RAS4-1VL;
- Pursuant to LAMC Section 11.5.11, a Measure JJJ Zone Change for projects receiving a density increase greater than 35 percent and allowing a residential use where not previously allowed, requesting the following Developer Incentives:
 - Reduction in parking to allow 160 residential automobile parking spaces in lieu of the 198 residential parking spaces otherwise required; and
 - Relief from General Plan Footnote 7 to allow for a project to rise to four (4) stories in lieu of three (3) stories.
- Pursuant to LAMC Section 16.05, a Site Plan Review for any development which creates, or results in an increase of, 50 or more dwelling units;
- Pursuant to LAMC Section 12.37 I.3, a Waiver of Dedication and Improvements to waive a required future cul-de-sac along Cantlay Street; and
- Other discretionary and ministerial permits and approvals that may be deemed necessary, including, but not limited to, temporary street closure permits, grading permits, excavation permits, tree removal, street tree removal, foundation permits, building permits, and sign permits.

INITIAL STUDY

4 ENVIRONMENTAL IMPACT ANALYSIS

I. AESTHETICS

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Except as provided in Public Resources Code Section 21099 would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a. Have a substantial adverse effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a) Have a substantial adverse effect on a scenic vista?

No Impact. A significant impact would occur if the proposed project would have a substantial adverse effect on a scenic vista. A scenic vista refers to views of focal points or panoramic views of broader geographic areas that have visual interest. A focal point view would consist of a view of a notable object, building, or setting. Diminishment of a scenic vista would occur if the bulk or design of a building or development contrasts enough with a visually interesting view, so that the quality of the view is permanently affected. The proposed project involves the demolition of an existing single-story commercial building and the construction, use, and maintenance of a new, four-story, 111-unit mixed-use development including two levels of subterranean parking and

4,500 square feet of ground floor commercial. The project is not located on or near any scenic vista. Therefore, no impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a state scenic highway?

No Impact. A significant impact would occur if the proposed project would substantially damage scenic resources within a State Scenic Highway. The City of Los Angeles General Plan Transportation Element (Map E: Scenic Highways in the City of Los Angeles) indicates that no City-designated scenic highways are located near the project site. Therefore, no impacts related to scenic highways would occur.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. A significant impact would occur if the proposed project would substantially degrade the existing visual character or quality of the project site and its surroundings. Significant impacts to the visual character of the site and its surroundings are generally based on the removal of features with aesthetic value, the introduction of contrasting urban features into a local area, and the degree to which the elements of the proposed project detract from the visual character of an area. The proposed project involves the demolition of an existing single-story commercial building and the construction, use, and maintenance of a new, four-story, 111-unit mixed-use development including two levels of subterranean parking and 4,500 square feet of ground floor commercial. The subject site is located in an urbanized area in the City. Surrounding properties are developed with one- to two-story commercial and residential developments, and surface parking lots. The height and scale of the proposed building would be consistent with the surrounding development. The proposed project will not change the visual character of its surroundings. Therefore, impacts will be less than significant, and no mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?

Less than significant. A significant impact would occur if light and glare substantially altered the character of off-site areas surrounding the site or interfered with the performance of an off-site activity. Light impacts are typically associated with the use of artificial light during the evening and night-time hours. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare is common in urban areas and is typically associated with mid- to high-rise buildings with exterior facades largely or entirely comprised of highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with bright point-source lighting that contrasts with existing low ambient light conditions. The proposed project involves the demolition of an existing single-story commercial building and the construction, use, and maintenance of a new, four-story, 111-unit mixed-use development including two levels of subterranean parking and 4,500 square feet of ground floor commercial. Due to the urbanized nature of the neighborhood, moderate level of

ambient nighttime light already exists. Nighttime lighting sources include street lights, vehicle headlights, and interior and exterior building illumination. The proposed project would include nighttime security lighting primarily along the perimeter of the project site. The proposed lighting however, will be shielded from adjacent properties and would not substantially change existing ambient nighttime lighting conditions. The proposed project does not include any elements or features that would create substantial new sources of glare. Therefore, impacts related to light or glare would be less than significant, and no mitigation is required.

II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

No Impact. The Project Site is located within a developed and urbanized area of the City. No farmland or agricultural activity exists on or near the Project Site. No portion of the Project Site is designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. As such, no impacts would occur, and no mitigation is required.

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

No Impact. The Project Site is located within the jurisdiction of the City of Los Angeles and is subject to the applicable land use and zoning requirements of the LAMC. The Project Site is currently designated for Neighborhood Office Commercial land uses and is zoned (Q)C1-1VL, CR-1VL and P-1VL. The proposed project involves the demolition of an existing single-story commercial building and the construction, use, and maintenance of a new, four-story, 111-unit mixed-use development including two levels of subterranean parking and 4,500 square feet of ground floor commercial. As such, the Project Site is not zoned for agricultural production, and there is no farmland at the Project Site. In addition, no Williamson Act Contracts are in effect for the Project Site. Therefore, no impacts would occur, and no mitigation is required.

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

No Impact. As previously stated, the Project Site has a current land use designation of Neighborhood Office Commercial and is zoned (Q)C1-1VL, CR-1VL and P-1VL. The Project Site is currently improved with an existing commercial building and associated surface parking. As such, the Project Site is not zoned as forest land or timberland, and there is no timberland production at the Project Site. Therefore, no impacts would occur, and no mitigation is required.

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

No Impact. The Project Site is occupied by a commercial building and surface parking lot within commercially zoned and designated land. The Project Site is also located in an urbanized area of the City of Los Angeles. No forested lands or natural vegetation exist on or in the vicinity of the Project Site. Therefore, no impact would occur.

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

No Impact. Neither the Project Site, nor nearby properties, are currently utilized for agricultural or forestry uses. As discussed above, the Project Site is not classified in any "Farmland" category designated by the State of California. Therefore, no impact would occur.

III. AIR QUALITY

Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Less than significant impact. The South Coast Air Quality Management District (SCAQMD) is the agency primarily responsible for comprehensive air pollution control in the South Coast Air Basin and reducing emissions from area and point stationary, mobile, and indirect sources. SCAQMD prepared the 2016 Air Quality Management Plan (AQMP) to meet federal and state ambient air quality standards. The 2016 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). 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.⁸ With regard to future growth, SCAG has prepared the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016-2040 RTP/SCS) which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the 2016-2040 RTP/SCS are based in part on projections originating under County and City General Plans. These growth projections were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2016 AQMP. The 2020-2045 RTP/SCS was approved in September 2020. Consistency with the 2020-2045 RTP/SCS is therefore analyzed in Land Use, Greenhouse Gas Emissions and Energy sections of this Initial Study/MND. However, the 2016 AQMP relies on the 2016-2040 RTP/SCS and is therefore addressed for consistency with the 2016 AQMP.

The 2016 AQMP was adopted by the SCAQMD as a program to lead the Air Basin into compliance with several criteria pollutant standards and other federal requirements. It relies on emissions forecasts based on demographic and economic growth projections provided by SCAG's 2016-2040 RTP/SCS. SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess whether the project would directly obstruct implementation of the plan and whether it is consistent with the demographic and economic assumptions (typically land use related, such as resultant employment or residential units) upon which the plan is based.

A significant air quality impact may occur if a project is inconsistent with the AQMP or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. The proposed project involves the demolition of an existing single-story commercial building and the construction, use, and maintenance of a new, four-story, 111-unit mixed-use development including two levels of subterranean parking and 4,500 square feet of ground floor commercial. As the planning and zoning governing the project site allow for the requested Zone Change and mixed-use project, the project would not lead to a substantial increase in regional employment or population growth which was not forecasted. Therefore, the Project would be consistent with the demographic projections set forth in SCAG's 2016-2040 RTP/SCS and which were used in the 2016 AQMP, and the Project would not conflict with or obstruct implementation of the 2016 AQMP.

The City's General Plan Air Quality Element identifies policies and strategies for advancing the City's clean air goals. To achieve the goals of the Air Quality Element, performance-based standards have been adopted by the City of Los Angeles to provide flexibility in implementation of its policies and objectives. The goal, objectives, and policies provided in the City's Air Quality Element applicable to the Project include the following:

- Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.
- Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the AQMP, increase traffic mobility, and sustain economic growth citywide.
- Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.
- Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.
- Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.

The Project would incorporate a mix of residential and commercial uses and also locate housing closer to commercial uses, thereby reducing the distances traveled for residents. Additionally, according to the Air Quality, Global Climate Change and Energy Impact Analysis prepared by EcoTierra Consulting, Inc, and dated March 2023, provided in Appendix A, and utilizing the California Emissions Estimator Model® (CalEEMod), the project does not reach the established thresholds of potential significance for air quality per the SCAQMD. Thus, the Proposed Project is not expected to conflict with or obstruct the implementation of the AQMP and SCAQMD rules. Therefore, impacts would be less than significant, and no mitigation is required. For the detailed description of the Air Quality analysis and results, refer to Appendix A.

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

Less Than Significant Impact. A significant impact would occur if the proposed project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. An Air Quality, Global Climate Change and Energy Impact Assessment for the project site was prepared by EcoTierra Consulting, LLC, dated March 2023 (see Appendix A). Project construction and operation emissions were estimated using California Emissions Estimator Model (CalEEMod), a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from land use projects. The modeling data is shown in full within the study's attached appendices, but the results are summarized under Section I.5. for both Construction-Source Emissions and Operational-Source Emissions. According to the Assessment, the proposed project would not exceed the regional SCAQMD significance thresholds for construction or operational emissions of Volatile Organic Compounds (VOC), Carbon Monoxide (CO), Nitrogen Oxides (NOx), Particulate Matter (PM10 and PM2.5), and Sulfur Dioxide (SOx). Thus, the project would not result in a considerable net increase of any criterial pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standards, and impacts would be less that significant for all phases.

The proposed project would result in a less than significant impact related to regional operational and construction emissions and would not result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment under an applicable federal or state ambient air quality standards. Furthermore, the project would be subject to regulatory compliance measures, which reduce the impacts of operational and construction regional emissions.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. A significant impact would occur if the Proposed Project were to expose sensitive receptors to pollutant concentrations. The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. The Project Site is surrounded by residential, commercial, and light industrial uses. The Project is subject to grading and construction standards to mitigate air pollution and dust impacts. Additionally, the project is not expected to contribute to pollutant concentrations or expose surrounding residences and other sensitive receptors to substantial pollutant concentrations. The Project is required to meet SCAQMD District Rule 403 as well as the City's requirements for demolition, grading, and construction related to air pollution. Therefore, construction and operation of the project would result in a less than significant impact for both localized and regional air pollution emissions and no mitigation is required. For the detailed description of the Air Quality analysis and results, refer to Appendix A.

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

Less Than Significant Impact. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the project site. The proposed project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. The construction, use, and maintenance of the proposed three-story commercial office building would not cause an odor nuisance. According to the SCAQMD CEQA Air Quality Handbook, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The proposed car wash use would not result in activities that create objectionable odors. Therefore, the proposed project would result in a less than significant impact related to objectionable odors and no mitigation is required. For the detailed description of the Air Quality analysis and results, refer to Appendix A.

IV. BIOLOGICAL RESOURCES

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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

No Impact. The proposed project is in within a highly urbanized area that does not contain any biological resources or habitat area. The sited is zoned P-1VL, CR-1VL, and (Q)C1-1VL and the

General Plan Land Use Designation is Neighborhood Office Commercial. The site is improved with a commercial building and associated surface parking. The project would redevelop the site with a 111-unit apartment building.

The Tree Disclosure Statement (Appendix B) dated May 27, 2022, and completed by Jan C. Scow, ASCA Registered Consulting Arborist #382, confirm that there are eight trees on site and four trees in the public right of way and none of the trees are City of Los Angeles protected native trees or shrubs, as specified by City of Los Angeles Ordinance No. 186873.

Development of the Project Site will not have an adverse effect either directly or through habitat modifications; on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, and no impacts would occur.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. A significant impact would occur if any riparian habitat or natural community would be lost or destroyed as a result of urban development. The Project Site does not contain any riparian habitat and does not contain any streams or water courses necessary to support riparian habitat. In addition, the Project Site does not contain any existing protected species of trees or vegetation. Therefore, the proposed project would not have any effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or the United States Fish and Wildlife Services. No impacts would occur, and no mitigation is required.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. A significant impact would occur if federally protect wetlands would be modified or removed by a project. The project site does not contain any federally protected wetlands, wetland resources, or other waters of the United States as defined by Section 404 of the Clean Water Act. The Project Site is located in an urbanized area and is currently improved with an existing single-story commercial building with surface parking and does not contain any existing protected species of trees or vegetation. The proposed Project involves the demolition of the existing commercial use and the construction, use, and maintenance of a 111-unit mixed-use apartment building. Therefore, the proposed project would not have any effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. As such, no impacts would occur, and no mitigation is required.

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

No Impact. A significant impact would occur if the proposed project would interfere with, or remove access to, a migratory wildlife corridor or impede use of native wildlife nursery sites. Due to the urbanized nature of the Project Site and surrounding area, the Project Site does not support habitat for native resident or migratory species or contain native nurseries. Therefore, the proposed project would not interfere with wildlife movement or impede the use of native wildlife nursery sites. As such, no impact would occur, and no mitigation is required.

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

Less than Significant Impact. A significant impact would occur if the proposed project would be inconsistent with local regulations pertaining to biological resources. The proposed project would not conflict with any policies or ordinances protecting biological resources, such as the City of Los Angeles Protected Tree Ordinance (No. 177,404). According to the Tree Disclosure Statement (Appendix B) dated May 27, 2022, and completed by Jan C. Scow, ASCA Registered Consulting Arborist #382, the project site does not contain locally protected biological resources, such as oak trees, Southern California black walnut, western sycamore, and California bay trees. The proposed project would be required to comply with the provisions of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (CFGF). Both the MBTA and CFGF protects migratory birds that may use trees on or adjacent to the project site for nesting and may be disturbed during construction of the proposed project. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands). No impacts would occur, and no mitigation is required.

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

No Impact. The project site and its vicinity are not part of any draft or adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan. Therefore, the proposed project would not conflict with the provisions of any adopted conservation plan. No impacts would occur, and no mitigation is required.

V. CULTURAL RESOURCES

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

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

No Impact. A significant impact would occur if the proposed project would substantially alter the environmental context of or remove identified historical resources. The subject property is currently improved with an existing single-story commercial use with surface parking. The proposed project involves the demolition of the existing commercial use and the construction, use, and maintenance of a new 111-unit mixed use apartment building. None of the existing structures on site have 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 of Historic Places, California Register of Historical Resources, or the Los Angeles Historic-Cultural Monuments Register. Therefore, no impacts would occur, and no mitigation is required.

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

Less Than Significant Impact. A significant impact would occur if a known or unknown archaeological resource would be removed, altered, or destroyed as a result of the proposed development. Section 15064.5 of the State CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources or resources that constitute unique archaeological resources. A project-related significant impact could occur if a project would significantly affect archaeological resources that fall under either of these categories.

If archaeological resources are discovered during excavation, grading, or construction activities, work shall cease in the area of the find until a qualified archaeologist has evaluated the find in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. Per regulatory compliance measures, personnel of the proposed project shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public

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

Less Than Significant Impact. A significant impact would occur if previously interred human remains would be disturbed during excavation of the project site. Human remains could be encountered during excavation and grading activities associated with the proposed project. While no formal cemeteries, other places of human interment, or burial grounds or sites are known to occur within the project area, there is always a possibility that human remains can be encountered during construction. If human remains are encountered unexpectedly during construction demolition and/or grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. If human remains of Native American origin are discovered during project construction, compliance with state laws, which fall within the jurisdiction of the Native American Heritage Commission (NAHC) (Public Resource Code Section 5097), relating to the disposition of Native American burials will be adhered to. Thus, impacts will be less than significant with regulatory compliance and no further analysis is needed.

VI. ENERGY

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

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

Less Than Significant Impact. The Project would be designed and operated in accordance with the applicable State Building Code Title 24 regulations and City of Los Angeles Green Building Code, which impose energy conservation measures. Adherence to the aforementioned energy requirements will ensure conformance with the State’s goal of promoting energy and lighting efficiency. Additionally, an Air Quality, Global Climate Change and Energy Impact Analysis was prepared by EcoTierra Consulting, Inc, dated March 2023 and included in Appendix A, which indicates that impacts related to energy consumption would be less than significant. As such, impacts of the Project would be less than significant, and no mitigation is required.

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

Less Than Significant Impact. The Project involves the demolition of an existing commercial use and the construction, use, and maintenance of a 111-unit mixed-use apartment building. As stated above, the project’s improvements and operations would be in accordance with applicable State Building Code Title 24 regulations and City of Los Angeles Green Building Code, which impose energy conservation measures. As such, impacts of the project would be less than significant, and no mitigation is required.

VII. GEOLOGY AND SOILS

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

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

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

Less Than Significant. A significant impact would occur if the proposed project would cause personal injury or death or result in property damage as a result of a fault rupture occurring on the project site and if the project site is located within a State-designated Alquist-Priolo Zone or other designated fault zone. The Alquist-Priolo Earthquake Fault Zoning Act is intended to mitigate the hazard of surface fault rupture on structures for human occupancy. According to the California Department of Conservation Special Studies Zone Map, the Project Site is not located within an Alquist-Priolo Special Studies Zone or Fault Rupture Study Area. The Project Site is 8.87 kilometers from the nearest fault zone (Northridge Fault). Earthquake hazard zones define areas subject to three distinct types of geologic ground failures: 1) fault rupture, where the surface of the earth breaks along a fault; 2) liquefaction, in which the soil temporarily turns to quicksand and cannot support structures; and 3) earthquake-induced landslides. The Geotechnical Investigation Report (Appendix C) dated June 12, 2023, prepared by Geoboden, Inc. states the site is generally free from geologic or seismic hazards that would preclude the proposed development. Furthermore, the seismic design requirements of the 2020 Los Angeles Building Code will be followed therefore the proposed development is considered feasible from a geotechnical perspective. Thus, impacts related to fault rupture would be less than significant, and no mitigation is required.

ii) **Strong seismic ground shaking?**

Less Than Significant Impact. A significant impact would occur if the proposed project would cause personal injury or death or resulted in property damage as a result of seismic ground shaking. The entire Southern California region is susceptible to strong ground shaking from severe earthquakes. Consequently, the proposed project could expose people and structures to strong seismic ground shaking. The design of the Project would be in accordance with the provisions of the latest California Building Code and Los Angeles Building Code (implemented at the time of building permits) and will mitigate the potential effects of strong ground shaking. The design and construction of the Project is required to comply with the most current codes regulating seismic risk, including the California Building Code and the LAMC, which incorporates the International Building Code (IBC). Compliance with current California Building Code and LAMC requirements will minimize the potential to expose people or structures to substantial risk of loss, injury or death. In addition, a Geotechnical Investigation Report (Appendix C) dated June 12, 2023, prepared by Geoboden, Inc, concluded that the site can be developed as proposed, provided the recommendations of the report are followed and implemented during design and construction. Therefore, impacts related to seismic ground shaking will be less than significant.

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

Less Than Significant. A significant impact may occur if a proposed project site is located within a liquefaction zone. Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. Per the LADBS Soils Report Approval

Letter (Log No. 126734-1) dated September 25, 2023 (Appendix C), the proposed development is not expected to require further investigation provided that the requirements of the 2020 City of Los Angeles Building Code are satisfied and recommended conditions implemented during the design and construction. Therefore, impacts related to seismic-related ground failure, including liquefaction, will be less than significant.

iv) Landslides?

No Impact. A significant impact would occur if the proposed project would be implemented on a site that would be located in a hillside area with unstable geological conditions or soil types that would be susceptible to failure when saturated. According to the California Department of Conservation, Division of Mines and Geology, the Seismic Hazard Zones Map for this area shows the project site is not located within a landslide hazard zone. The project site and surrounding area are relatively flat. Therefore, the proposed project would not expose people or structures to potential effects resulting from landslides. As such, no impacts would occur, and no mitigation is required.

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

Less Than Significant Impact. Grading and earthwork activities during construction would expose soils to potential short-term erosion by wind and water. During construction, the proposed project would be required to comply with erosion and siltation control measures such as sand-bagging to reduce site runoff or hold topsoil in place prior to final grading and construction. The proposed project is required to comply with the California Green Building Code Section 5.106, which requires newly constructed projects which disturb less than one acre of land to prevent stormwater runoff pollution through compliance with local ordinances and implementation of Best Management Practices (BMPs). As a result, construction activities would be performed in accordance with the requirements of the Los Angeles Building Code and the Los Angeles Regional Water Quality Control Board (RWQCB) through the City's Stormwater Management Division (LASAN). BMPs include drainage swales or lined ditches to control stormwater flow, scheduling construction during dry weather, sediment traps or basins to retain sediments on site, and hydroseeding to stabilize disturbed soils. Additionally, compliance with LAMC Division 70 (Grading, Excavations and Fills), which contains specific requirements for erosion control and drainage devices, would reduce any soil erosion from the site. Low-impact development (LID) plans are required to include a site design approach and BMPs that address runoff and pollution at the source. During the project's construction phase, the project would also be required to implement SCAQMD Rule 403 – Fugitive Dust to minimize wind and waterborne erosion at the site. As such, compliance with City and State regulatory requirements would minimize erosion potential to a less than significant level; no mitigation is required.

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

Less Than Significant Impact with Mitigation Incorporated. A significant impact would occur if any unstable geological conditions would result in any type of geological failure, including lateral spreading, off-site landslides, liquefaction, or collapse. The proposed project would not have the potential to expose people and structures to seismic-related ground failure, including liquefaction and landslide. Subsidence and ground collapse generally occur in areas with active groundwater withdrawal or petroleum production. The extraction of groundwater or petroleum from sedimentary

source rocks can cause the permanent collapse of the pore space previously occupied by the removed fluid. The project site is not identified as being located in an oil field or within an oil drilling area. The proposed project would be required to implement standard construction practices that would ensure that the integrity of the project site and the proposed structures is maintained. A Geotechnical Investigation Report (Appendix C) dated June 12, 2023, prepared by Geoboden, Inc. concluded that the site can be developed as proposed, provided the recommendations of the report are followed and implemented during design and construction. Subsequently, a LADBS Soils Report Approval Letter (Log No. 126734-1) dated September 25, 2023 (Appendix C) concluded that project's Geotechnical Investigation Report is acceptable. Therefore, with the implementation Mitigation Measure GEO-1, the potential for landslide lateral spreading, subsidence, liquefaction or collapse would be less than significant.

MM GEO-1. Geotechnical Engineering Measures

Final design and construction plans for the Project shall incorporate geotechnical engineering recommendations based on site specific soil investigations, and shall consider collapsible soils, protection from corrosive soils, and other applicable soil conditions. More specifically, final design and plans shall incorporate geotechnical engineering recommendations from the Geotechnical Investigation Report prepared by Geoboden, Inc. on June 12, 2023.

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

No Impact. A significant impact would occur if the proposed project would be built on expansive soils without proper site preparation or design features to provide adequate foundations for project buildings, thus, posing a hazard to life and property. Expansive soils have relatively high clay mineral and expand with the addition of water and shrink when dried, which can cause damage to overlying structures. Soils on the project site may have the potential to shrink and swell resulting from changes in the moisture content. The Project Site is not located in an area known to have expansive soils. A Geotechnical Investigation Report (Appendix C) dated June 12, 2023, prepared by Geoboden, Inc. concluded that the site can be developed as proposed, provided the recommendations of the report are followed and implemented during design and construction. Subsequently, a LADBS Soils Report Approval Letter (Log No. 126734-1) dated September 25, 2023 (Appendix C), concluded that project's Geotechnical Investigation Report is acceptable. Therefore, no impact will occur, and no mitigation is required.

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

No Impact. A project would cause a significant impact if adequate wastewater disposal is not available. The Project Site is located in an urbanized area, where wastewater infrastructure is currently in place. The proposed project would connect to existing sewer lines that serve the project site and would not use septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur, and no mitigation is required.

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

Less Than Significant Impact. Based on the criteria established in the State’s CEQA Guidelines and Appendix G, a significant impact could occur if grading or excavation activities associated with the Project were to disturb unique paleontological resources or unique geologic features that presently exist within the Project Site. The Project Site is located within an urbanized area that has been subject to grading and development in the past and is not known to contain any unique paleontological resource or site or unique geologic feature. Potential paleontological or geologic impacts of the Project would be less than significant, and no mitigation is required.

VIII. GREENHOUSE GAS EMISSIONS

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

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

Less Than Significant Impact. Greenhouse gases (GHG) are those gaseous constituents of the atmosphere, both natural and anthropogenic (human generated), that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the earth’s surface, the atmosphere itself, and by clouds. The greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the greenhouse effect, the Earth would be a frozen globe with an average surface temperature of about 5°F.

The City has adopted the LA Green Plan to provide a citywide plan for achieving the City’s GHG emissions targets, for both existing and future generation of GHG emissions. In order to implement the goal of improving energy conservation and efficiency, the Los Angeles City Council has adopted multiple ordinances and updates to establish the current Los Angeles Green Building Code (LAGBC) (Ordinance No. 179,890). The LAGBC requires projects to achieve a 20 percent reduction in potable water use and wastewater generation. As the LAGBC includes applicable provisions of the State’s CALGreen Code, a new project that can demonstrate it complies with the LAGBC is considered consistent with statewide GHG reduction goals and policies including AB32 (California Global Warming Solutions Act of 2006). Through required implementation of the LAGBC, the proposed project would be consistent with local and statewide goals and policies aimed at reducing the generation of GHGs. Therefore, the proposed project’s generation of GHG emissions would not make a cumulatively considerable contribution to emissions. Therefore, impacts will be less than significant, and no mitigation is required. For the detailed description of the Greenhouse Gas analysis and results, refer to Appendix A.

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

Less Than Significant Impact. The California legislature passed Senate Bill (SB) 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the metropolitan planning organizations to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plans to achieve the per capita GHG reduction targets. For the SCAG region, the SCS is contained in the 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The 2012-2035 RTP/SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas on existing main streets, in downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. In addition, SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled that contribute to GHG emissions, as required by AB 32. The proposed project involves the demolition of existing structures and the construction, use and maintenance of a new, 111-unit, mixed-use development on a site currently zoned P-1VL, CR-1VL, and (Q)C1-1VL and within the Reseda – West Van Nuys Community Plan which designates the subject property for Neighborhood Office Commercial land uses. In order to facilitate the development of the proposed mixed-use development, the applicant is requesting a Vesting Zone Change from the P-1VL, (Q)C1-1VL, and CR-1VL Zones to (T)(Q)RAS4-1VL; a Site Plan Review for a development project which creates, or results in an increase of, 50 or more dwelling units; and a Waiver of Dedication and Improvements to waive requirements for a future cul-de-sac on Cantlay Street. The project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2012-2035 RTP/SCS. Therefore, impacts will be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

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

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

Less Than Significant Impact. Based upon the criteria established in the State CEQA Guidelines, a significant impact may occur if a project would involve the use or disposal of hazardous materials as part of its routine operations, or would have the potential to generate toxic or otherwise hazardous emissions that could adversely affect sensitive receptors. The Proposed Project includes the construction of a mixed-use multifamily residential development. During the operation of the Proposed Project, no hazardous materials other than modest amounts of typical cleaning supplies and solvents used for janitorial purposes would routinely be transported to the Project Site. The acquisition, use, handling, storage, and disposal of these substances would comply with all applicable federal, state, and local requirements.

Construction could involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations, which include requirements for disposal of hazardous materials at a facility licensed to accept such waste based on its waste classification and the waste acceptance criteria of the permitted disposal facilities. Therefore, the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and impacts would be less than significant.

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

Less Than Significant Impact. A significant impact would occur if the Proposed Project created a significant hazard to the public or environment due to a reasonably foreseeable release of hazardous materials. The site is not identified by the City of Los Angeles to be a Methane Zone and is not identified by DTSC (EnviroStor) as a clean up site. Therefore, there is a less than significant impact related to the release of hazardous materials into the environment. No mitigation is required.

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

Less Than Significant Impact. A significant impact would occur if the Proposed Project created a significant hazard to the public or environment due to a reasonably foreseeable release of hazardous materials within proximity to a school. The site is approximately 0.5 miles from Woodcrest Elementary School. Nevertheless, the site is not located within a Methane Zone or within a clean-up area. Therefore, there is a less than significant impact related to the release of hazardous materials into the environment because of site disturbances. The proposed use of a multifamily apartment building is not associate with the release of hazardous emissions as apart of its daily operations. Therefore, there is a less than significant impact without mitigation measures.

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

No Impact. A significant impact would occur if the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would create a significant hazard to the public or the environment. The California Department of Toxic Substances Control (DTSC) maintains a database (EnviroStor) that provides access to detailed information on hazardous waste permitted sites and corrective action facilities, as well as existing site cleanup information. EnviroStor also provides information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or have been completed under DTSC's oversight. A review of EnviroStor did not identify any records of hazardous waste facilities on the Project Site. Therefore, the proposed Project would not be located on a site that is included on a list of hazardous materials sites or create a significant hazard to the public or the environment, and no impact would occur.

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

Less Than Significant Impact. A significant project-related impact may occur if the Proposed Project were placed within a public airport land use plan area, or within two miles of a public airport and subject to a safety hazard. The closest public airport to the Project Site is the Van Nuys Airport, located approximately 1 mile east of the Project Site. The Project Site is subject to a Horizontal Surface Area Airport Hazard and, as such, the project would require approval from the Federal Aviation Administration (FAA) prior to construction completion. The building proposes four stories and would reach a maximum height of approximately 48 feet above grade to include the roof appurtenances. The height of the proposed building is substantially consistent with the heights of other buildings in the area. As such, the Proposed Project would not negatively impact air navigation or the safety of people residing or working in the Project Site. Therefore, a less than significant impact would occur.

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

Less Than Significant Impact. Based upon the criteria established in the State CEQA Guidelines, a project would normally have a significant impact to hazards and hazardous materials if: (a) the project involved possible interference with an emergency response plan or emergency evacuation plan. According to the State CEQA Guidelines, the determination of significance shall be made on a case-by-case basis considering the degree to which the project may require a new, or interfere with an existing emergency response or evacuation plan, and the severity of the consequences. The Project Site is not located in a disaster route according to the Los Angeles Valley Area Disaster Route Map of Los Angeles County. The nearest identified disaster route is Sherman Way which is the southern frontage of the project site. Development of the Project Site may require temporary and intermittent partial street closures due to construction activities. Nonetheless, while such closures may cause temporary inconvenience, they would not be expected to substantially interfere with emergency response or evacuation plans. The Proposed Project would not cause permanent alterations to vehicular circulation routes and patterns, impede public access, or travel upon public rights-of-way. Further, emergency vehicle drivers have a variety of options for avoiding traffic, such as using their sirens to clear a path of travel or driving in the lanes of opposing traffic. Therefore, the Proposed Project would not be

expected to interfere with any adopted emergency response plan or emergency evacuation plan, and a less than significant impact would occur.

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

No Impact. The Project Site is located in a highly urbanized area of Los Angeles and does not include wildlands or high fire hazard terrain or vegetation. The Project Site is not located in a Very High Fire Hazard Severity Zone (VHFHSZ). Therefore, no impacts from wildland fires are expected to occur.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off-site;				
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;				
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				
iv. Impede or redirect flood flows?				
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. A project could have a significant impact on surface water quality if discharges associated with the project were to create pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable National Pollution Discharge Elimination System (NPDES) stormwater permit or Water Quality Control Plan for the receiving water body. For the purpose of this specific issue, a significant impact may occur if the project would discharge water that does not meet the quality standards of local agencies that regulate surface water quality and water discharge into stormwater drainage systems.

The project is expected to comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include the Standard Urban Storm Water Mitigation Plan (SUSMP) requirements to reduce potential water quality impacts and the City's Low Impact Development (LID) Ordinance. The purpose of the LID standards is to reduce the peak discharge rate, volume, and duration of flow through the use of site design and stormwater quality control measures. The LID Ordinance requires that the project retain or treat the first three-quarters of an inch of rainfall in a 24-hour period. LID practices can effectively remove nutrients, bacteria, and metals while reducing the volume and intensity of stormwater flows.

The project consists of an 111-unit mixed-use apartment building in an area characterized by low-rise residential and commercial buildings. The project does not involve the introduction of new activities or features that could be sources of contaminants that would degrade groundwater quality. As a result, the project would not create or contribute runoff water that would exceed the pollutant profile associated with the existing condition of the Project Site and its surroundings. As such, potential water quality impacts from the project would be less than significant and no mitigation is required.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. A significant impact would occur if the Proposed Project would substantially deplete groundwater or interfere with groundwater recharge. The Proposed Project would not require the use of groundwater at the Project Site. Potable water would be supplied by the Los Angeles Department of Water and Power (LADWP), which draws its water supplies from distant sources for which it conducts its own assessment and mitigation of potential environmental impacts. Therefore, the project would not require direct additions or withdrawals of groundwater. Excavation to accommodate subterranean levels is not being proposed and the scope of the work thus would not result in the interception of existing aquifers or penetration of the existing water table. Additionally, any project that creates, adds, or replaces 500 square feet of impervious surface must comply with the Low impact Development (LID) Ordinance. The LID Ordinance requires that the project retain or treat the first three-quarters of an inch of rainfall in a 24-hour period. As such, through project design features and through regulatory compliance, impacts on groundwater supplies and groundwater recharge would be less than significant and no mitigation is required.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

Less than Significant Impact. A significant impact would occur if the Proposed Project would substantially alter the drainage pattern of the site or area, including through the alteration of the course of a stream or river, such that erosion or siltation would result. Project construction would temporarily expose on-site soils to surface water runoff. However, compliance with construction-related Best Management Practices (BMPs) and/or the Storm Water Pollution Prevention Plan (SWPPP) would control and minimize erosion and siltation. During project operation, storm water or any runoff irrigation waters would be directed into existing storm drains that are currently receiving surface water runoff under existing conditions. Significant alterations to existing drainage patterns within the Project Site and surrounding area would not occur. Therefore, the Proposed Project would result in less-than-significant impact related to the alteration of drainage patterns and on- or off-site erosion or siltation and no mitigation is required.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant Impact. Site-generated surface water runoff would continue to flow to the City's storm drain system. Impermeable surfaces resulting from the development of the project would not significantly change the volume of stormwater runoff. The site is already developed with impermeable uses including a commercial building and surface parking lot. Accordingly, since the volume of runoff from the site would not measurably increase over existing conditions, water runoff after development would not exceed the capacity of existing or planned drainage systems. Any project that creates, adds, or replaces 500 square feet of impervious surface must comply with the Low Impact Development (LID) Ordinance or alternatively, the City's Standard Urban Stormwater Mitigation Plan (SUSMP), as an L.A.M.C. requirement to address water runoff and storm water pollution. Therefore, the Proposed Project would result in less-than-significant impacts related to flooding on- or off-site and no mitigation is required.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less than Significant Impact. A significant impact would occur if runoff water would exceed the capacity of existing or planned storm drain systems serving the Project Site, or if the Proposed Project would substantially increase the probability that polluted runoff would reach the storm drain system. Site-generated surface water runoff would continue to flow to the City's storm drain system. Pursuant to local practice and City regulations, stormwater retention would be required as part of City's Standard Urban Stormwater Mitigation Plan (SUSMP) implementation features and the requirements of the Low Impact Development (LID) ordinance requirements. The primary purpose of the LID ordinance is to ensure that development and redevelopment projects mitigate runoff in a manner that captures rainwater and removes pollutants while reducing the volume and intensity of

stormwater flows. Accordingly, with compliance to the LID ordinance, the project would not create or contribute to surface runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the Proposed Project would result in less-than-significant impacts related to existing storm drain capacities or water quality and no mitigation is required.

iv. Impede or redirect flood flows?

No Impact. The Project Site is located in an urbanized area that is currently served by storm drain infrastructure. The site is currently developed with impermeable uses including a commercial building and a surface parking lot. The project would not change the local drainage pattern; therefore, the project would not have the potential to impede or redirect floodwater flows. No impact would occur, and no mitigation measures are necessary.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. A significant impact would occur if the Project Site were sufficiently close to the ocean or other water body to potentially be at risk of seismically induced tidal phenomena (e.g., seiche and tsunami), or was within a flood zone, and if the Project Site utilized, stored or otherwise contained pollutants that would be at risk of release if inundated. The Project Site is not located within a Tsunami Inundation Zone or Flood Zone. Furthermore, the proposed use does not involve the storage or use of substantial quantities of potential pollutants. No impacts would occur and no mitigation is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. A significant impact could occur if the project includes potential sources of water pollutants that would have the potential to interfere with a water quality control plan or sustainable groundwater management plan. The project involves the construction, use, and maintenance of a new mixed-use multifamily residential building. As compared to existing conditions (commercial building with surface parking) the project would not introduce different uses or potential sources of water pollutants. Moreover, the project would comply with the City's Low Impact Development (LID) ordinance, the primary purpose of which is to ensure that development and redevelopment projects mitigate runoff in a manner that captures rainwater and removes pollutants while reducing the volume and intensity of storm water flows. No impacts would occur and no mitigation is required.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Physically divide an established community?

No Impact. A significant impact would occur if the proposed project would be sufficiently large or configured in such a way so as to create a physical barrier within an established community. A physical division of an established community is caused by an impediment to through travel or a physical barrier, such as a new freeway with limited access between neighborhoods on either side of the freeway, or major street closures. The project site is within an urbanized and established area of the City of Los Angeles. The project site is located off Sherman Way within a substantially urban environment. The proposed project is an in-fill development located on a commercially zoned lot that would allow for a mixed-use building within an established residential neighborhood. The project does not propose any new streets or other physical barriers that could physically divide an established community. Given the location and nature of the proposed project, the project would not physically divide established communities. No impact would occur, and no mitigation is required.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. A significant impact may occur if a project is inconsistent with a General Plan policy or zoning regulation was designed expressly to avoid or mitigate an environmental effect at the Project Site. The site has a General Plan Land Use Designation of Neighborhood Office Commercial. The requested Zone of (T)(Q)RAS4-1VL is permitted within this land use designation. The property is not located within any Specific Plans or supplement Use District. The project includes the construction of a new mixed-use, multifamily building, a use that is permitted in the Neighborhood Office Commercial land use designation and is permitted in the RAS3-1VL zone. The decision maker will determine whether the discretionary request for a Zone Change will conflict with applicable plans/policies. Impacts related to land use are address through compliance with existing regulations. Therefore, the impact would be less than significant, and no mitigation is required.

XII. MINERAL RESOURCES

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

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. A significant impact would occur if the Proposed Project would result in the loss of availability of known mineral resources of regional value or locally important mineral recovery site. The Project Site is not classified by the City as containing significant mineral deposits. The Project Site is designated for Neighborhood Office Commercial land uses and not as a mineral extraction land use. In addition, the Project Site is not identified by the City as being located in an oil field or within an oil drilling area. Therefore, the proposed Project would not result in the loss of availability of any known, regionally or locally valuable mineral resource, and no impact would occur.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The project site has not historically been used for mineral resource extraction and is not currently used for mineral recovery. The project site is not located within a MRZ-2 Area, an Oil Drilling/Surface Mining Supplemental Use District, or an Oil Field/Drilling Area.³⁶ No mineral resources are known to exist beneath the project site. As such, the project would have no impacts associated with the loss of availability of a known mineral resource. Further, the proposed project does not involve any use that would result in any impacts to mineral resources. Therefore, there would be no loss of a known mineral resource and no impact would occur.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 with Mitigation Incorporated. A significant impact would occur if the project generated noise during construction or operations that exceeded the standards established in the City’s Noise Ordinance or General Plan Noise Element. A Noise Study was conducted by EcoTierra Consulting, Inc, dated March 2023 (Appendix D). As analyzed therein, operational noise impacts are expected to be less than significant and construction noise impacts are expected to be less than significant with the imposition of Mitigation Measure NOI-1. Therefore, with compliance with City noise regulations and incorporation of MM NOI-1, construction noise impacts would be less than significant.

MM NOI-1. Noise.

- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices capable of a 15 dBA reduction.
- Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- A temporary noise control barrier/sound curtain shall be installed on the property line of the construction site abutting/facing adjacent multi-family residential uses located to the northeast and the closest residential uses located to the north, northwest, and west of the project site. The noise control barrier shall be engineered to block the line-of-sight from the residential uses to the construction activity and reduce construction-related noises levels at the adjacent residential structures with a goal of a reduction of 15 dBA. The supporting structure shall be engineered and erected according to applicable codes. The

temporary barrier shall remain in place until all windows have been installed and all activities on the project site are complete.

b) Generation of, excessive groundborne vibration or groundborne noise levels?

Less than Significant with Mitigation Incorporated. Construction activities can generate varying degrees of vibration, depending on the construction procedures and the type of construction equipment used. The operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. Unless heavy construction activities are conducted extremely close (within a few feet) to the neighboring structures, vibrations from construction activities rarely reach the levels that damage structures. A Noise Study was conducted by EcoTierra Consulting, Inc, dated March 2023 (Appendix D). As discussed therein, vibration impacts can be mitigated project design features and Mitigation Measures NOI-2 and NOI-3. Therefore, with incorporation of project design feature PDF-NOI-1 and mitigation measures MM NOI-2 and MM NOI-3 into the project, impacts from ground-borne vibration would be reduced to a level of less than significant.

PDF-NOI-1. Noise.

The construction contractor shall not use pile drivers on the project site.

MM NOI-2. Noise.

The construction contractor shall not use large excavators, bulldozers or caisson drills within 80 feet of the façade of the residential uses located adjacent to the northeastern portion of the site and the residential uses located closest to the northern and western boundaries of the project site.

MM NOI-3. Noise.

The construction contractor shall not use large excavators, bulldozers, or caisson drills within 15 feet of the facades of the commercial buildings located to the east of the project boundary.

c) 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. The closest public airport to the Project Site is the Van Nuys Airport, located approximately 1 mile east of the Project Site. The Project Site is subject to a Horizontal Surface Area Airport Hazard and, as such, the project would require approval from the Federal Aviation Administration (FAA) prior to construction completion. The building proposes four stories and would reach a maximum height of approximately 48 feet above grade to include the roof appurtenances. According to the Noise Study conducted by EcoTierra Consulting, Inc, dated March 2023 (Appendix D), the project is not located within an airport noise contour and airport-related noise impacts are considered to be less than significant.

XIV. POPULATION AND HOUSING

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

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

Less Than Significant Impact. A potentially significant impact to induced unplanned population growth would occur if the proposed project was proposing new homes in an area where they were not planned for. Pursuant to the Reseda – West Van Nuys Community Plan, the subject site is designed for Neighborhood Office Commercial land uses corresponding to the C1, C1.5, C2, C4, RAS3, RAS4, and P Zones. The proposed project is for the demolition of an existing commercial structure and the construction, use, and maintenance of a 111-unit apartment building. The project includes a zone change from the P-1VL, (Q)C1-1VL, and CR-1VL Zones to (T)(Q)RAS4-1VL, which is consistent with the plan land use (Neighborhood Office Commercial) for the site. Thus, the proposed mixed-use residential project is consistent with what has been planned for this area. Therefore, as the project is consistent with the underlying Land Use Designation, impacts related to induced substantial unplanned population growth are less than significant.

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

Less Than Significant Impact. A potentially significant impact would occur if the proposed project would displace a substantial quantity of existing residences or a substantial number of people. The proposed project would result in the demolition of a commercial structure and surface parking lot. Therefore, pursuant to SB 8 (Housing Crisis Act of 2019) the project is not required to replace the demolished commercial building. Nevertheless, the project will be providing new residential units including affordable units subject to Measure JJJ. Therefore, with compliance with the replacement requirements, there is no impact related to displacement or replacement.

XV. PUBLIC SERVICES

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Fire protection?

Less Than Significant Impact. A significant impact would occur if the Los Angeles Fire Department (LAFD) could not adequately serve the proposed project, necessitating a new or physically altered station. The project site and the surrounding area are currently served by LAFD Fire Station 100, located at 6751 Louise Avenue (approximately 1 mile southwest of the project site).

The proposed project would result in a net increase of 111 units, which could increase the number of emergency calls and demand for LAFD fire and emergency services. To maintain the level of fire protection and emergency services, the LAFD may require additional fire personnel and equipment. However, given that there are existing fire stations in close proximity to the project site (LAFD Stations 39, 73, 90, 90, 103, and 114 are all within a 5-mile radius), it is not anticipated that there would be a need to build a new or expand an existing fire station to serve the proposed project and maintain acceptable service ratios, response times, or other performance objectives for fire protection. By analyzing data from previous years and continuously monitoring current data regarding response times, types of incidents, and call frequencies, LAFD can shift resources to meet local demands for fire protection and emergency services. The proposed project would neither create capacity or service level problems nor result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection. Therefore, the project would have a less than significant impact on Fire protection.

b) Police protection?

Less Than Significant Impact. A significant impact would occur if the Los Angeles Police Department (LAPD) could not adequately serve the proposed project, necessitating a new or physically altered station. The proposed project would result in a net increase of 111 units and could increase demand for police service. The project site and the surrounding area are currently served by LAPD's West Valley Police Station, located at 19020 Vanowen Street (approximately 3 miles west of the project site). Regarding operations, in the event a situation should arise requiring increased staffing or patrol units, additional resources can be called in. Therefore, the proposed project would result in a less than significant impact related to police protection services.

c) Schools?

Less than Significant Impact. A significant impact would occur if the Los Angeles Unified School District could not adequately serve the proposed project, necessitating a new or physically altered school site. However, the city assesses a development impact fee for residential projects to address such potential impacts. Therefore, with compliance with the fee requirement, the impact the project has on schools is less than significant.

d) Parks?

Less Than Significant Impact. A significant impact would occur if the proposed project would exceed the capacity or capability of the local park system to serve the proposed project. The City of Los Angeles Department of Recreation and Parks (RAP) is responsible for the provision, maintenance, and operation of public recreational and park facilities and services in the City. The proposed project would result in a net increase of 111 dwelling units, which could result in increased demand for parks and recreation facilities. Pursuant to Section 21.10 of the LAMC, the applicant may be required to pay the Parks Fee or Dwelling Unit Construction Tax for construction of apartment buildings. Therefore, the proposed project would not create capacity or service level problems or result in substantial physical impacts associated with the provision or new or altered parks facilities. Accordingly, the proposed project would result in a less than significant impact on park facilities.

e) Other public facilities?

Less Than Significant Impact. A significant impact would occur if the proposed project would result in substantial employment or population growth that could generate a demand for other public facilities, including libraries, which exceed the capacity available to serve the project site, necessitating new or physically altered public facilities, the construction of which would cause significant environmental impacts. The proposed project would result in a net increase of 111 residential units, which could result in increased demand for library services and resources of the Los Angeles Public Library System. However, the proposed project would not create substantial capacity or service level problems that would require the provision of new or expanded public facilities in order to maintain an acceptable level of service for libraries and other public facilities. Therefore, the proposed project would result in a less than significant impact on other public facilities.

XVI. RECREATION

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

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

Less Than Significant Impact. A significant impact would occur if the proposed project would exceed the capacity or capability of the local park system to serve the proposed project. The City of Los Angeles Department of Recreation and Parks (RAP) is responsible for the provision, maintenance, and operation of public recreational and park facilities and services in the City. The proposed project would result in a net increase of 111 dwelling units, which could result in increased demand for parks and recreation facilities. Pursuant to Section 21.10 of the LAMC, the applicant may be required to pay the Parks Fee or Dwelling Unit Construction Tax for construction of apartment buildings. Therefore, the proposed project would not create capacity or service level problems or result in substantial physical impacts associated with the provision or new or altered parks facilities and impacts would be less than significant impact.

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

Less Than Significant Impact. The Proposed Project would not require the construction or expansion of recreational facilities beyond the limits of the project site. The proposed project would result in a net increase of 111 dwelling units and would include on-site recreational facilities and open spaces. The project could result in increased demand for parks and recreation facilities, but pursuant to Section 21.10 of the LAMC, the applicant may be required to pay the Parks Fee or Dwelling Unit Construction Tax for construction of apartment buildings. Therefore, any impacts related to recreational facilities would be less than significant.

XVII. TRANSPORTATION¹

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Less Than Significant. A significant impact to the Circulation System may occur if the Proposed Project causes a net increase in Vehicle Miles Traveled (VMT) that surpasses Los Angeles Department of Transportation's (DOT) established traffic impact criteria. As shown in the Transportation Impact Assessment from LADOT dated January 5, 2023 (Appendix E), the project will result in an 8.6 Daily Household VMT per Capita. The new LADOT Transportation Assessment Guidelines (TAG) indicates that the threshold for significant VMT impacts in the South Valley Area Planning Commission (APC) area is 9.4 Household VMT per Capita. As such, the project results in a VMT that is less than the threshold of significance. The letter references BOE highway dedication and street widening requirements for Sherman Way and Genesta Avenue which do not conflict with the project's proposed Waiver of Dedication and Improvements involving a future cul-de-sac on Cantlay Street. The project is providing adequate vehicular and bicycle parking spaces, and the driveway and circulation plan has been reviewed by LADOT. Furthermore, the Transportation Demand Management (TDM) Ordinance is being updated which will be required for all projects as regulatory compliance. The project is not expected to contribute significantly to any traffic congestion or affect any congestion management program. The Project

would not conflict with a program, plan, ordinance or policy addressing the vehicular circulation system. Therefore, impacts will be less than significant, and no mitigation is required.

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant. A significant impact may occur if the adopted Los Angeles County Metropolitan Transportation authority (Metro) thresholds for a significant project impact would be exceeded. The Congestion Management Program (CMP) was adopted to regulate and monitor regional traffic growth and transportation improvement programs. The CMP designates a transportation network that includes all state highways and some arterials within the County of Los Angeles. As shown in the Transportation Impact Assessment from LADOT dated January 5, 2023 (Appendix E), the project will result in an 8.6 Daily Household VMT per Capita. The new LADOT Transportation Assessment Guidelines (TAG) indicates that the threshold for significant VMT impacts in the South Valley Area Planning Commission (APC) area is 9.4 Household VMT per Capita. As such, the project results in a VMT that is less than the threshold of significance. Therefore, the project is not expected to contribute significantly to any traffic congestion or affect any congestion management program. Therefore, impacts will be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant. A significant impact could occur if a project were to include new roadway design or introduces a new land use or features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if access or other features were designed in such a way as to create hazard conditions. The Project Site is currently developed with a single-story commercial structure with a surface parking lot. A new four-story mixed-use apartment building is proposed for construction. No changes are proposed to the surrounding road system. The project would include a curb cut for egress/ingress for vehicles access and would not include unusual design features. Adherence to all emergency response plan requirements set forth by the City and LAFD would be required through the duration of the project's construction and operation phases. There impacts regarding hazards due to a design feature would be less than significant.

d) Result in inadequate emergency access?

No Impact. A significant impact would occur if the Proposed Project would result in inadequate emergency access. The project does not propose any changes to emergency access and will require approval of plans by the Fire Department. Further, the project must comply with all applicable City fire safety regulations. No impact will occur, and no mitigation is required.

XVIII. TRIBAL CULTURAL RESOURCES

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?

Less Than Significant. A significant impact would occur if the project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, which is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). The site is not listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(l). Most of the natural ground-surface appears to be obscured by urban development; consequently, not all surface artifacts would not be visible during a survey. While there are currently no recorded archaeological sites within the project area, buried resources could potentially be unearthed during project activities. Therefore, customary caution and a halt-work condition will in place for all ground-disturbing activities. In the event that any evidence of

cultural resources is discovered, all work within the vicinity of the find will stop until a qualified archaeological consultant can assess the find and make recommendations. Excavation of potential cultural resources will not be attempted by project personnel.

On April 12, 2023, Planning staff issued a letter in conformance with AB52 to inform Tribal Representatives about the project. On April 27, 2023, the Applicant paid an invoice at the request of the Fernandeno Tatavian Band Mission Indians. No further communication or consultation was requested. Therefore, with the adherence to existing regulatory compliance measures, impacts related to tribal and cultural resources will be less than significant.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant. Approved by Governor Brown on September 25, 2014, Assembly Bill 52 (AB52) establishes a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources (TCRs), as defined in Public Resources Code Section 21074, as part of CEQA. Effective July 1, 2015, AB 52 applies to projects that file a Notice of Preparation on or after July 1, 2015. PRC Section 21084.2 now establishes that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment. To help determine whether a project may have such an effect, PRC Section 21080.3.1 requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. As a result of AB 52, the following must take place: 1) prescribed notification and response timelines; 2) consultation on alternatives, resource identification, significance determinations, impact evaluation, and mitigation measures; and 3) documentation of all consultation efforts to support CEQA findings for the administrative record.

Under AB 52, if a lead agency determines that a project may cause a substantial adverse change to a TCR, the lead agency must consider measures to mitigate that impact. PRC Section 21074 provides a definition of a TCR. In brief, in order to be considered a TCR, a resource must be either: 1) listed, or determined to be eligible for listing, on the national, State, or local register of historic resources, or 2) a resource that the lead agency chooses, in its discretion supported by substantial evidence, to treat as a TCR. In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the State register of historic resources or City Designated Cultural Resource. In applying those criteria, a lead agency shall consider the value of the resource to the tribe.

As specified in AB 52, lead agencies must provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the tribe has submitted a written request to be notified. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. An

informational letter was mailed to a total of 10 Tribes known to have resources in this area, on April 12, 2023, describing the Project and requesting any information regarding resources that may exist on or near the Project Site. On April 27, 2023, the Applicant paid an invoice at the request of the Fernandeno Tatavian Band Mission Indians. No further communication or consultation was requested. Therefore, with the adherence to existing regulatory compliance measures, impacts related to tribal and cultural resources will be less than significant.

XIX. UTILITIES AND SERVICE SYSTEMS

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

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

Less Than Significant Impact. A significant impact would occur if the proposed project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. The Los Angeles Department of Water and Power (LADWP) conducts water planning based on forecast population growth. The addition of a an eight unit apartment building would be consistent with Citywide growth, and therefore, the project demand for water is not anticipated to require new water supply entitlements and/or require the expansion of existing or construction of new water treatment facilities beyond those already considered in the LADWP 2020 Urban Water Management Plan. Prior to any construction activities the project applicant would be required to coordinate with the City of Los Angeles Bureau of Sanitation (BOS) to determine the exact wastewater conveyance requirements of the proposed project, and any upgrades to the wastewater lines in the vicinity of the project site that are needed to adequately serve the proposed project would be undertaken as part of the project. Furthermore, the General Plan Framework Element (originally adopted by the City Council in 1996 and readopted in 2001), sets forth a citywide comprehensive long-range growth strategy. Chapter 9 of the Framework Element, Infrastructure and Public Services, identifies the viability of the infrastructure system, including power, as supplied by the Los Angeles Department of Water and Power, and telecommunications, as provided by public and private entities. The goals, objectives, and policies contained in the Framework Element are implemented on a Citywide basis to ensure the adequacy of development. The Southern California Gas Company provides natural gas to City residents, and the net addition of 111 dwelling units would not exceed capacity. Finally, both the Department of Water and Power and the Southern California Gas Company utilize energy efficient policies and programs as regulated by the state and the city so that the capacity of infrastructure systems remain adequate to serve City residents. Therefore, the proposed project would have a less than significant impact related to water or wastewater, energy, natural gas, and/or telecommunications infrastructure.

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

Less than Significant Impact. A significant impact would occur if the proposed project would increase water consumption or wastewater generation to such a degree that the capacity of facilities currently serving the project site would be exceeded. The Los Angeles Department of Water and Power (LADWP) conducts water planning based on forecast population growth. The net addition of a 111-unit mixed-use apartment building as a result of the proposed project would be consistent with Citywide growth, and, therefore, the project demand for water is not anticipated to require new water supply entitlements and/or require the expansion of existing or construction of new water treatment facilities beyond those already considered in the LADWP 2020 Urban Water Management Plan. Prior to any construction activities, the project applicant would be required to coordinate with the City of Los Angeles Bureau of Sanitation (BOS) to determine the exact wastewater conveyance requirements of the proposed project, and any upgrades to the wastewater lines in the vicinity of the project site that are needed to adequately serve the proposed project would be undertaken as part of the project. Therefore, the proposed project would have a less than significant impact related to water supplies.

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

Less than Significant Impact. A significant impact would occur if the proposed project would exceed wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board (LARWQCB). All wastewater from the project would be treated according to requirements of the NPDES permit authorized by the LARWQCB. Therefore, the proposed project would result in a less than significant impact related to wastewater treatment requirements.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. A significant impact would occur if the proposed project's solid waste generation exceeded the capacity of permitted landfills. The Los Angeles Bureau of Sanitation (BOS) and private waste management companies are responsible for the collection, disposal, and recycling of solid waste within the City, including the project site. Solid waste during the operation of the proposed project is anticipated to be collected by the BOS and private waste haulers, respectively. As the City's own landfills have all been closed and are non-operational, the destinations are private landfills. In compliance with Assembly Bill (AB) 939, the project applicant would be required to implement a Solid Waste Diversion Program and divert at least 50 percent of the solid waste generated by the project from the applicable landfill site. The proposed project would also comply with all federal, State, and local regulations related to solid waste. Therefore, the proposed project would have a less than significant impact related to solid waste.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. A significant impact would occur if the proposed project's solid waste generation exceeded the capacity of permitted landfills. The Los Angeles Bureau of Sanitation (BOS) and private waste management companies are responsible for the collection, disposal, and recycling of solid waste within the City, including the project site. Solid waste during the operation of the proposed project is anticipated to be collected by the BOS and private waste haulers, respectively. As the City's own landfills have all been closed and are non-operational, the destinations are private landfills. In compliance with Assembly Bill (AB) 939, the project applicant would be required to implement a Solid Waste Diversion Program and divert at least 50 percent of the solid waste generated by the project from the applicable landfill site. The proposed project would also comply with all federal, State, and local regulations related to solid waste. Therefore, the proposed project would have a less than significant impact related to solid waste.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones:

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

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

Less Than Significant Impact. The City of Los Angeles Emergency Management Department coordinates with City departments, municipalities, and community-based organizations to ensure that the City and its residents have the resources to prepare, respond, and recover from emergencies, disasters and significant events. The City's Emergency Operations Organization comprises all agencies of the City's government, including Fire. The Los Angeles Fire Department actively engages in disaster preparedness and includes fire as one of 13 federally identified threats to the City. Therefore, the construction of a 111-unit mixed-use apartment building will not significantly impair any adopted emergency response plan or emergency evacuation.

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

Less Than Significant Impact. A significant impact would occur if the proposed project exposed people to pollutant concentrations from a wildfire. The subject site is not located within a designated Hillside area, Very High Fire Severity Zone, or High Wind Velocity Area. Any impacts involving pollutant concentrations from a wildfire would be less than significant.

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

Less Than Significant Impact. A significant impact would occur if the proposed 4-story mixed-use apartment building required the installation or maintenance of associated infrastructure, such as roads, fuel breaks, emergency water sources, power lines, or other utilities that may exacerbate fire risk. The project will be required to comply with all fire-safety related requirements in the building code. As such, there would be less than significant impact.

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

Less Than Significant Impact. The project site is not located in a designated Hillside or Landslide area or flood zone, and therefore, the project would have less than significant impacts on area downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

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

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

Less Than Significant Impact. On the basis of the foregoing analysis, the proposed project does not have the potential to significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten or eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. The project site is bordered by existing development in an urbanized area of the City of Los Angeles. The proposed project is consistent with the intent of the General Plan. Therefore, the project would not have a significant impact on any sensitive, rare, or endangered plant/wildlife community.

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

Less Than Significant Impact. The proposed project does not have impacts that are individually limited, but cumulatively considerable. Incremental impacts resulting from development and operation of the proposed project and other cumulative projects that would be under construction include air quality, cultural resources, geology and soils, hazards and hazardous materials, and tribal resources. The analysis concluded that these incremental impacts are each less than significant or can be mitigated to a less than significant level. When viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects, these impacts are not cumulatively considerable. No cumulative impacts are anticipated in connection with this or other projects. The proposed project complies with Community Plan Land Use Designation, SCAQMD’s AQMP, SCAG’s RTP/SCS, and LADWP’s UWMP. No significant adverse environmental impacts have been identified. The analysis contained in this Initial Study evaluated existing conditions, potential impacts associated with the development of the project, and possible environmental cumulative impacts. The project does not have any impact on projected growth or planned projects for the City of Los Angeles or neighboring jurisdictions known as of the date of this analysis.

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

Less Than Significant Impact. There are no known substantial adverse effects on human beings that would be directly or indirectly caused by the proposed project. The environmental evaluation has concluded that no significant environmental impacts will result from the project.

Sherman Way Mixed Use Project Air Quality, Global Climate Change and Energy Impact Analysis

Prepared for:

**Lion Signature
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6362 Van Nuys Boulevard
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March 2023



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c o n s u l t i n g

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I. INTRODUCTION AND SUMMARY

1. PURPOSE OF ANALYSIS AND STUDY OBJECTIVES

The purpose of this air quality, global climate change, and energy impact analysis is to provide an assessment of the impacts resulting from development of the Sherman Way Mixed-Use Project and to identify measures that may be necessary to reduce potentially significant impacts. This study was performed to address the possibility of regional/local air quality impacts and global climate change impacts, from project-related air emissions. The objectives of the study include:

- documentation of the atmospheric setting
- discussion of criteria pollutants and greenhouse gases
- discussion of the air quality and global climate change regulatory framework
- discussion of the air quality and greenhouse gases thresholds of significance
- analysis of the construction related air quality and greenhouse gas emissions
- analysis of the operations related air quality and greenhouse gas emissions
- analysis of the conformity of the proposed project with the SCAQMD AQMP
- analysis of the project's energy use during construction and operation.
- recommendations for emissions reduction measures

The City of Los Angeles is the lead agency for this air quality, greenhouse gas, and energy analysis, in accordance with the California Environmental Quality Act authorizing legislation. Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with terms unique to air quality and global climate change, a definition of terms has been provided in Appendix A.

2. PROJECT LOCATION

The project site is located at 16949-16955 W. Sherman Way (APN 2227-003-017) in the City of Los Angeles. A vicinity map showing the project location is provided on **Figure 1, Project Location Map**.



Project Site

Source: Google Earth and Open Street Maps, December 2022.



Figure 1
Project Location Map

3. PROJECT DESCRIPTION

The project includes demolition of an existing 4,212 square foot (SF) building, together with approximately 45,000 SF of surface parking lot and construction of a new, 4-story, 110,891 SF mixed-use building which includes 111 apartments and 5,300 SF of retail uses, on top of a 182-space, approximately 72,800 SF subterranean parking structure, on 1.13 acres. **Figure 2, Site Plan**, illustrates the proposed site plan.

The project is anticipated to be built in one phase with demolition/construction to start no sooner than September 2023 and take approximately 2 years to complete. Even if construction was to occur any time after the respective dates, the analysis represents “worst-case” since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.¹ The project is anticipated to be operational in 2025. The project would include approximately 23,000 cubic yards (CY) of export.

4. SENSITIVE RECEPTORS IN PROJECT VICINITY

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (South Coast Air Quality Management District 2008). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours.

The nearest sensitive receptors to the project site are: the multi-family residential uses located adjacent to the northeastern corner of the site, the single-family residential uses located approximately 40 feet north of the site, north of Cantlay Street; the single-family residential uses located approximately 50 feet west of the site, west of Genesta Avenue; and the single-family residential uses located approximately 134 feet southwest of the site, south of Sherman Way. Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

5. SUMMARY OF IMPACTS

A. Construction-Source Emissions

Project construction-source emissions would not exceed applicable regional or local thresholds of significance established by the South Coast Air Quality Management District (SCAQMD).

As discussed herein, the project will comply with all applicable SCAQMD construction-source emission reduction rules and guidelines. Project construction source emissions would not cause or substantively

¹ As shown in the California Emissions Estimator Model (CalEEMod) User's Guide Version 2020.4.0, Section 4.3.2 “OFFROAD Equipment” as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

contribute to violation of the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS) or result in toxic air contaminant (TAC)-related impacts.

Established requirements addressing construction equipment operations, and construction material use, storage, and disposal requirements act to minimize odor impacts that may result from construction activities. Moreover, construction-source odor emissions would be temporary, short-term, and intermittent in nature and would not result in persistent impacts that would affect substantial numbers of people. Potential construction-source odor impacts are therefore considered less than significant.

B. Operational-Source Emissions

The project operational-sourced emissions would not exceed applicable regional or local thresholds of significance established by the SCAQMD. Additionally, project-related trips will not cause or result in CO concentrations exceeding applicable state and/or federal standards (CO “hotspots”). Project operational-source emissions would therefore not adversely affect sensitive receptors within the vicinity of the project.

The project's emissions meet SCAQMD regional thresholds and will not result in a significant cumulative impact. The project does not propose any such uses or activities that would result in potentially significant operational-source toxic air contaminants or odor impacts. Potential operational-source odor impacts are therefore considered less than significant.

C. Greenhouse Gases

The project is consistent with the CARB Scoping Plan, SCAG's 2020 RTP/SCS, and the LA Sustainable City pLAN/ Green New Deal. Therefore, the project would not conflict with an applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and impacts are considered to be less than significant.

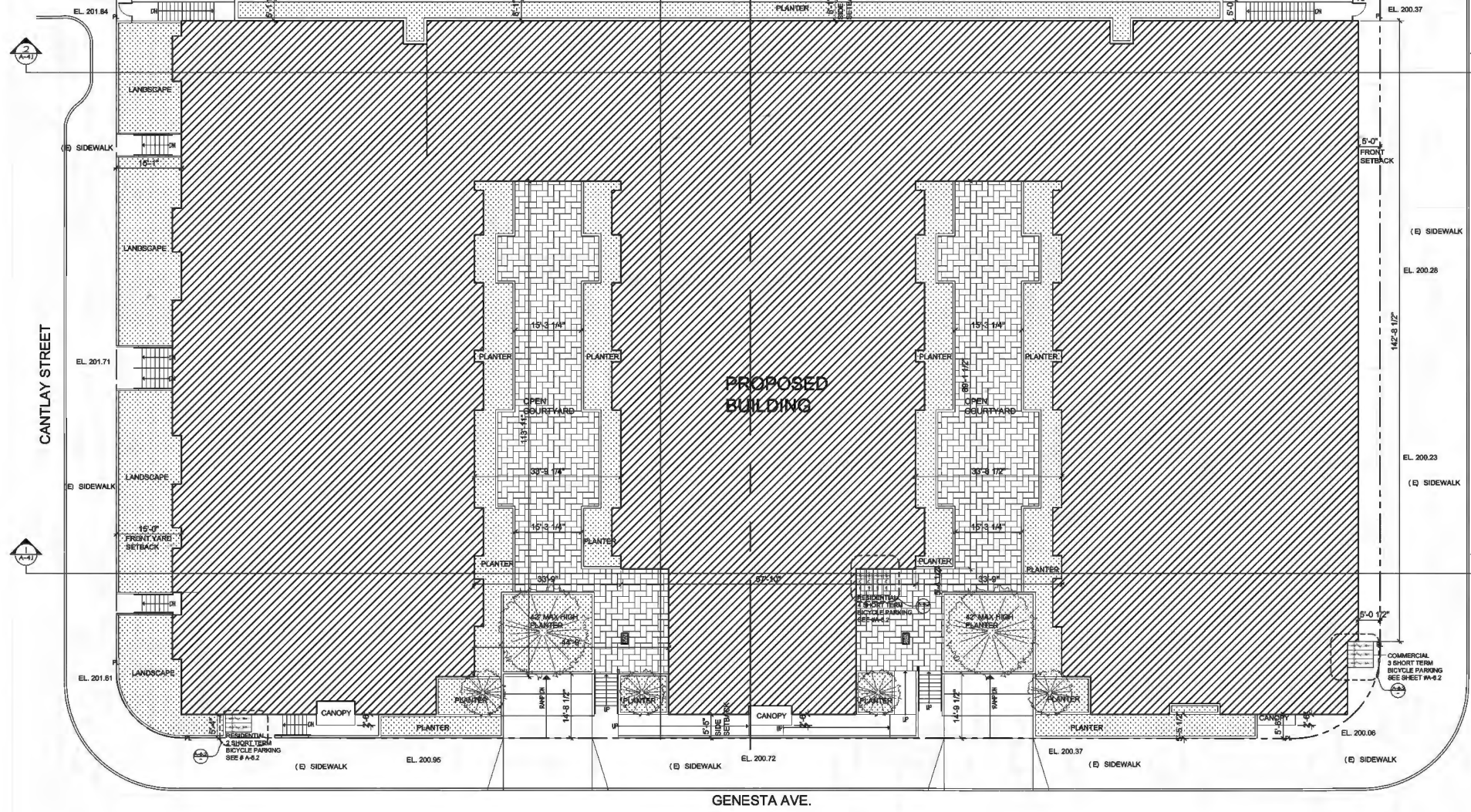
D. Energy

For new development such as that proposed by the project, compliance with California Building Standards Code Title 24 energy efficiency requirements (CALGreen), are considered demonstrable evidence of efficient use of energy. As discussed below, the project would promote energy efficiencies required under other applicable federal and State of California standards and regulations, and in so doing would meet or exceed all California Building Standards Code Title 24 standards. Moreover, energy consumed by the project's operation is calculated to be comparable to, or less than, energy consumed by other uses of similar scale and intensity that are constructed and operating in California. On this basis, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the project would not cause or result in the need for additional energy producing facilities or energy delivery system.

VESTING ZONE CHANGE TO (T)(Q)RAS4-1VL
291'-0" 1/2"

146'-0" 1/2" P-1VL

145'-0" C1-1VL, CR-1VL



Source: Alajjian Marcoosi Architects, Inc., September 2022.



Figure 2
Site Plan

II. AIR QUALITY ANALYSIS

1. EXISTING AIR QUALITY CONDITIONS

A. Local Air Quality

The project site is located within the city of Los Angeles, within Los Angeles County; which is part of the South Coast Air Basin (Basin). The Basin includes all of Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties. Bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, the Basin is an area of high air pollution potential. The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Air quality within the Basin is influenced by a wide range of emissions sources—such as dense population centers, heavy vehicular traffic, and industry. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, heavy vehicular traffic, industry, and meteorology.

The annual average temperature varies throughout the Basin, ranging from the low to mid 60s to over 100 degrees during the summer, measured in Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

The Basin experiences a persistent temperature inversion, which is characterized by increasing temperature with increasing altitude. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer.

Aside from a persistent temperature inversion, the vertical dispersion of air contaminants in the Basin is also affected by wind conditions. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. Conversely, on days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas in the Basin are transported eastward, predominantly into Riverside and San Bernardino Counties. Santa Ana winds, which are strong and dry north or northeasterly winds that occur during the fall and winter months, disperse air contaminants differently through the Basin, generally resulting in worse air conditions in the inner basin areas. Santa

Ana conditions tend to last for several days at a time. Wind speeds in the Los Angeles area average more than 6.9 miles per hour (mph) from November to April and can average 8.4 mph in December¹.

The majority of annual rainfall in the Basin occurs between December and March. Summer rainfall is minimal and generally limited to scattered thundershowers in coastal regions. The annual average total of rainfall in the Los Angeles area is approximately 16 inches².

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the Los Angeles area (Los Angeles Downtown USC Campus, CA Station), the closest monitoring station to the project site, are shown below in **Table 1, Local Monthly Climate Data**. **Table 1** shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table 1
Local Monthly Climate Data

Descriptor	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Max. Temperature	68.5	68.9	70.5	73.1	75.1	78.7	83.4	84.7	83.2	78.9	70.8	68.3
Avg. Min. Temperature	49.5	51.1	53.0	55.5	59.0	62.0	65.1	65.8	64.5	60.4	52.1	49.4
Avg. Total Precipitation (in.)	3.07	3.73	2.42	0.97	0.31	0.08	0.01	0.05	0.21	0.66	1.04	2.44

Source: Los Angeles DWTN USC Campus, California. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5115>
Data from the Los Angeles Downtown USC Campus, CA station (045115) for period 1981 to 2010.

B. Pollutants

Pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have

¹ Weather Spark, Average Weather in Los Angeles, website: <https://weatherspark.com/y/1705/Average-Weather-in-Los-Angeles-California-United-States-Year-Round>.

² Best Places, Climate in Los Angeles, California, website: https://www.bestplaces.net/climate/city/california/los_angeles.

been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

i) Criteria Pollutants

The criteria pollutants consist of: ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, lead, and particulate matter. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants.

ii) Nitrogen Dioxides

Nitrogen Oxides (NO_x) is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x are colorless and odorless, concentrations of nitrogen dioxide (NO₂) can often be seen as a reddish-brown layer over many urban areas. NO_x form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO₂, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

iii) Ozone

Ozone (O₃) is not usually emitted directly into the air but at ground-level is created by a chemical reaction between NO_x and volatile organic compounds (VOC) in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NO_x and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

iv) Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes about 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust.

Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

v) Sulfur Dioxide

Sulfur Oxide (SO_x) gases (including sulfur dioxide [SO₂]) are formed when fuel containing sulfur, such as coal and oil is burned, and from the refining of gasoline. SO_x dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

vi) Lead

Lead (Pb) is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-

acid battery manufacturers. Exposure of fetuses, infants, and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

vii) Particulate Matter

Particulate matter (PM) is the term for a mixture of solid particles and liquid droplets found in the air. Particulate matter is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

viii) Reactive Organic Gases (ROG)

Although not a criteria pollutant, reactive organic gases (ROGs), or volatile organic compounds (VOCs), are defined as any compound of carbon—excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric photochemical reactions. Although there are slight differences in the definition of ROGs and VOCs, the two terms are often used interchangeably. Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

C. Other Pollutants of Concern

i) Toxic Air Contaminants

In addition to the above-listed criteria pollutants, toxic air contaminants (TACs) are another group of pollutants of concern. Sources of toxic air contaminants include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least forty different toxic air contaminants. The most important of these toxic air contaminants, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to toxic air

contaminants can result from emissions from normal operations as well as from accidental releases. Health effects of toxic air contaminants include cancer, birth defects, neurological damage, and death.

Toxic air contaminants are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of toxic air contaminants with varying degrees of toxicity. Sources of toxic air contaminants include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *the 2013 California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risk from toxic air contaminants can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). Diesel particulate matter is a subset of PM_{2.5} because the size of diesel particles are typically 2.5 microns and smaller. The identification of diesel particulate matter as a toxic air contaminant in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in diesel particulate matter by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot". Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of diesel particulate matter as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to diesel particulate matter is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

ii) Asbestos

Asbestos is listed as a TAC by the ARB and as a Hazardous Air Pollutant by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. Naturally occurring asbestos is not present in Los Angeles County. The nearest likely locations of naturally occurring asbestos, as identified in the General Location Guide for Ultramafic Rocks in California prepared by the California Division of Mines and Geology, is located at Asbestos Mountain in the San Jacinto Valley, over 123 miles southeast of the site. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

2. REGULATORY SETTING

The project is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

A. Federal – United States Environmental Protection Agency

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. The NAAQS pollutants were identified using medical evidence and are shown below in **Table 2, State and Federal Criteria Pollutant Standards**.

The EPA and the California Air Resource Board (CARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” National nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards. Each standard has a different definition, or ‘form’ of what constitutes attainment, based on specific air quality statistics. For example, the Federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the Federal annual PM_{2.5} standard is met if the three-year average of the annual average PM_{2.5} concentration is less than or equal to the standard. Attainment status is shown in **Table 3, South Coast Air Basin Attainment Status**.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP.

As indicated below in **Table 3**, the South Coast Air Basin has been designated by the EPA as a non-attainment area for ozone (O₃) and suspended particulates (PM₁₀). Currently, the Basin is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO₂), nitrogen dioxide (NO₂) and particulate matter (PM_{2.5}).

Table 2
State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O ₃)	0.09 ppm/1-hour 0.07 ppm/8-hour	0.070 ppm/8-hour	(a) Decline in pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm/1-hour 9.0 ppm/8-hour	35.0 ppm/1-hour 9.0 ppm/8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO ₂)	0.18 ppm/1-hour 0.03 ppm/annual	100 ppb/1-hour 0.053 ppm/annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO ₂)	0.25 ppm/1-hour 0.04 ppm/24-hour	75 ppb/1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM ₁₀)	50 µg/m ³ /24-hour 20 µg/m ³ /annual	150 µg/m ³ /24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter (PM _{2.5})	12 µg/m ³ / annual	35 µg/m ³ /24-hour 12 µg/m ³ /annual	
Sulfates	25 µg/m ³ /24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) property damage.
Lead	1.5 µg/m ³ /30-day	0.15 µg/m ³ /3-month rolling	(a) Learning disabilities; (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer-visibility of 10 miles or more due to particles when humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: US Environmental Protection Agency, Overview of Greenhouse Gases. <http://www3.epa.gov/climatechange/ghgemissions/gases.html>.

Table 3
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide	Attainment	Maintenance (Serious)
Nitrogen dioxide	Attainment	Maintenance (Primary)
Sulfur dioxide	Attainment	Attainment/Unclassified
PM10	Nonattainment	Maintenance (Serious)
PM2.5	Nonattainment	Nonattainment (Serious)
<i>(Federal and State Status): California Air Resources Board (2020). https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations & US EPA (2020) https://www.epa.gov/green-book.</i>		

B. State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants are shown in **Table 2**. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

The SCAQMD-portion of the South Coast Air Basin (SCAB) has been designated by the CARB as a nonattainment area for ozone, PM₁₀ and PM_{2.5}. Currently, the SCAB is in attainment with the ambient air quality standards for CO, lead, SO₂, NO₂, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

On June 20, 2002, the CARB revised the PM10 annual average standard to 20 µg/m³ and established an annual average standard for PM_{2.5} of 12 µg/m³. These standards were approved by the Office of Administrative Law in June 2003 and are now effective. On September 27, 2007 CARB approved the South Coast Air Basin and the Coachella Valley 2007 Air Quality Management Plan for Attaining the Federal 8-hour Ozone and PM_{2.5} Standards. The plan projects attainment for the 8-hour Ozone standard by 2024 and the PM_{2.5} standard by 2015.

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NO_x, PM₁₀ and PM_{2.5} emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, Title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California.

The CARB is also responsible for regulations pertaining to toxic air contaminants. The Air Toxics “Hot Spots” Information and Assessment Act (AB 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into the South Coast Air Basin. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

i) AB 617 Nonvehicular Air Pollution: Criteria Air Pollutants and Toxic Air Contaminants

This bill requires the state board to develop a uniform statewide system of annual reporting of emissions of criteria air pollutants and toxic air contaminants for use by certain categories of stationary sources. The bill requires those stationary sources to report their annual emissions of criteria air pollutants and toxic air contaminants, as specified. This bill required the state board, by October 1, 2018, to prepare a monitoring plan regarding technologies for monitoring criteria air pollutants and toxic air contaminants and the need for and benefits of additional community air monitoring systems, as defined. The bill requires the state board to select, based on the monitoring plan, the highest priority locations in the state for the deployment of community air monitoring systems. The bill requires an air district containing a selected location, by July 1, 2019, to deploy a system in the selected location. The bill would authorize the air district to require a stationary source that emits air pollutants in, or that materially affect, the selected location to deploy a fence-line monitoring system, as defined, or other specified real-time, on-site monitoring. The bill authorizes the state board, by January 1, 2020, and annually thereafter, to select additional locations for the deployment of the systems. The bill would require air districts that have deployed a system to provide to the state board air quality data produced by the system. By increasing the duties of air districts, this bill would impose a state-mandated local program. The bill requires the state board to publish the data on its Internet Web site.

C. Regional

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

i) 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. Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) identifies growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the South Coast Air Quality Management District.

On May 7, 2020, SCAG's Regional Council adopted Connect SoCal (RTP/SCS) for federal transportation conformity purposes only. On September 3, 2020, SCAG's Regional Council approved and fully adopted Connect SoCal (RTP/SCS). Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than \$638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

ii) South Coast Air Quality Management District

The SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs.

1) AQMP

On June 30, 2016, the SCAQMD released its Draft 2016 AQMP. The 2016 AQMP is a regional blueprint for achieving the federal air quality standards and healthful air. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the Plan is not approved or if the NAAQS are not met on time. As with every AQMP, a comprehensive analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures is updated with the latest data and methods. The most significant air quality challenge in the Basin is to reduce nitrogen oxide (NOx) emissions sufficiently to meet the upcoming ozone standard deadlines. On March 23, 2017 the CARB approved the 2016 AQMP. The primary goal of this Air Quality Management Plan is to meet clean air standards and protect public health, including ensuring benefits to environmental justice and disadvantaged

communities. Now that the Plan has been approved by the CARB, it has been forwarded to the U.S. EPA for its review. The Plan was approved by the EPA on June 15, 2017.

Every three (3) years the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon.³ In May 2022, the SCAQMD completed the 2022 Draft AQMP. The 2022 Draft AQMP is focused on attaining the 2015 8-hour ozone standard (70 ppb) for the South Coast Air Basin and Coachella Valley. The Draft 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP was adopted December 2, 2022, by SCAQMD Governing Board. The 2022 AQMP strategy includes the following:⁴

- Wide adoption of zero emissions technologies anywhere available.
- Low NOx technologies where zero emissions aren't feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.
- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

The 2022 AQMP was approved and adopted by CARB on January 26, 2023.

2) SCAQMD Rules

During construction and operation, the project must comply with applicable rules and regulations. The following are rules that the project may be required to comply with, either directly, or indirectly:

SCAQMD Rule 402

Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons

³ CARB is in the process of adopting the 2022 AQMP; however, it has not been adopted at this time and the 2016 AQMP is the operating plan.

⁴ SCAQMD 2022 AQMP Infographic. <http://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/2022-aqmp-infographic>.

or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

SCAQMD Rule 403

Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through application of standard Best Management Practices, such as application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites.

Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. In addition, SCAQMD Rule 403 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off-site. Applicable dust suppression techniques from Rule 403 are summarized below. Implementation of these dust suppression techniques can reduce the fugitive dust generation (and thus the PM₁₀ component). Compliance with these rules would reduce impacts on nearby sensitive receptors. Rule 403 measures may include but are not limited to the following:

- Apply nontoxic chemical soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for 10 days or more).
- Water active sites at least three times daily (locations where grading is to occur will be thoroughly watered prior to earthmoving).
- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 0.6 meters (2 feet) of freeboard (vertical space between the top of the load and top of the trailer) in accordance with the requirements of California Vehicle Code section 23114.

SCAQMD Rule 445

Prohibits permanently installed wood burning devices into any new development. A wood burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.

SCAQMD Rule 481

Applies to all spray painting and spray coating operations and equipment. The rule states that a person shall not use or operate any spray painting or spray coating equipment unless one of the following conditions is met:

- (1) The spray coating equipment is operated inside a control enclosure, which is approved by the Executive Officer. Any control enclosure for which an application for permit for new construction, alteration, or change of ownership or location is submitted after the date of adoption of this rule shall be exhausted only through filters at a design face velocity not less than 100 feet per minute nor greater than 300 feet per minute, or through a water wash system designed to be equally effective for the purpose of air pollution control.
- (2) Coatings are applied with high-volume low-pressure, electrostatic, and/or airless spray equipment.
- (3) An alternative method of coating application or control is used which has effectiveness equal to or greater than the equipment specified in the rule.

SCAQMD Rule 1108

Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule would regulate the VOC content of asphalt used during construction. Therefore, all asphalt used during construction of the project must comply with SCAQMD Rule 1108.

SCAQMD Rule 1113

Governs the sale, use, and manufacturing of architectural coating and limits the VOC content in paints and paint solvents. This rule regulates the VOC content of paints available during construction. Therefore, all paints and solvents used during construction and operation of the project must comply with SCAQMD Rule 1113.

SCAQMD Rule 1143

Governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.

SCAQMD Rule 1186

Limits the presence of fugitive dust on paved and unpaved roads and sets certification protocols and requirements for street sweepers that are under contract to provide sweeping services to any federal, state, county, agency, or special district such as water, air, sanitation, transit, or school district.

SCAQMD Rule 1403

Asbestos Emissions from Demolition/Renovation Activities, specifies work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM).

SCAQMD Rule 2202

On-Road Motor Vehicle Mitigation Options, is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. It applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average.

3) SCAQMD and CEQA

Although the SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook (SCAQMD CEQA Handbook)* prepared by the SCAQMD (1993) with the most current updates found at <http://www.aqmd.gov/ceqa/hdbk.html>, was developed in accordance with the projections and programs of the AQMP. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that the SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. SCAQMD is in the process of developing an "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook approved by the AQMD Governing Board in 1993. The 1993 CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the 1993 Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new Handbook is being prepared, supplemental information regarding: significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the SCAQMD website⁵. The SCAQMD CEQA Handbook and supplemental information are used in this analysis.

⁵ South Coast Air Quality Management District. <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

D. Local – City of Los Angeles

Local jurisdictions, such as the City of Los Angeles, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2016 AQMP and SCAQMD Attainment Plans. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, 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 relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Air Quality Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The City of Los Angeles General Plan Air Quality Element, adopted November 24, 1992 contains the following air quality-related goals, objectives, and policies that are applicable to the project:

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

Objective 1.1 It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan (AQMP), increase traffic mobility, and sustain economic growth citywide.

Objective 1.2 It is the objective of the City of Los Angeles to demonstrate the City's commitment to air quality improvement through the development and revision of the City's General Plan Elements as appropriate, and to work cooperatively with federal, state, regional, and other local jurisdiction in attaining clean air.

Policy 1.2.1 Implement the Air Quality Element policies set forth in this Chapter through adoption of the Clean Air Program which shall be amended as Council sees necessary without General Plan Amendment.

Policy 1.2.2 Pursue the City's air quality objectives in cooperation with regional and other local jurisdictions.

Objective 1.3 It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.

Policy 1.3.1 Minimize particulate emissions from construction sites.

Policy 1.3.2 Minimize particulate emissions from unpaved roads and parking lots which are associated with vehicular traffic.

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

Objective 2.1 It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objective necessary to achieve regional air quality goals.

Goal 4 Minimal impact of existing land use pattern and future land use development on air quality by addressing the relationship between land use, transportation, and air quality.

Objective 4.1 It is the objective of the City of Los Angeles to include regional attainment of ambient air quality standards as a primary consideration in land use planning.

Objective 4.2 It is the objective of the City of Los Angeles to reduce vehicle trips and vehicle miles traveled associated with land use patterns.

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 methods such as site orientation and tree planting.

Objective 5.1 It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.

Objective 5.3 It is the objective of the City of Los Angeles to reduce the use of polluting fuels in stationary sources.

3. MONITORED AIR QUALITY

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Estimates of the existing emissions in the Basin provided in the Final 2022 Air Quality Management Plan prepared by SCAQMD (December 2022) indicate that collectively, mobile sources account for 46 percent of the VOC, 85 percent of the NO_x emissions, 89 percent of the CO emissions and 29 percent of directly emitted PM_{2.5}, with another 18 percent of PM_{2.5} from road dust.

The SCAQMD has divided the South Coast Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in the West San Fernando Valley Source Receptor Area (SRA 6). The nearest air monitoring station to the project site is the Reseda Monitoring Station (Reseda Station). The Reseda Station is located approximately 1.7 miles northeast of the project site at 18330 Gault Street, Reseda. **Table 4** presents the monitored pollutant levels from the Reseda Station. However, it should be noted that due to the air monitoring station distance from the project site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the project site. As nitrogen dioxide and PM-10 data was not available for the Reseda station, data was obtained from the Los Angeles- North Main Street Station.

Table 4 summarizes 2019 through 2021 published monitoring data, which is the most recent 3-year period available. The data shows that during the past few years, the project area has exceeded the State ozone and Particulate Matter (PM₁₀) standards.

**Table 4
Air Quality Monitoring Summary**

Pollutant (Standard) ¹		Year		
		2019	2020	2021
Ozone:	Maximum 1-Hour Concentration (ppm)	0.122	0.142	0.110
	Days > CAAQS (0.09 ppm)	14	33	4
	Maximum 8-Hour Concentration (ppm)	0.094	0.115	0.083
	Days > NAAQS/CAAQS (0.070 ppm)	34	62	31
Carbon Monoxide:	Maximum 8-Hour Concentration (ppm)	*	*	*
	Days > CAAQS (9 ppm)	0	0	0
	Days > NAAQS (9 ppm)	0	0	0
Nitrogen Dioxide: ²	Maximum 1-Hour Concentration (ppm)	0.0697	0.0618	0.0778
	Days > CAAQS (0.18 ppm)	0	0	0
Inhalable Particulates (PM10): ²	Maximum 24-Hour Concentration (µg/m ³)	93.9	185.2	138.5
	Days > NAAQS (150 µg/m ³)	0	0	*
	Days > CAAQS (50 µg/m ³)	15	34	14
	Annual Average (µg/m ³)	34	34	34
Ultra-Fine Particulates (PM2.5):	Maximum 24-Hour Concentration (µg/m ³)	30.0	73.8	55.5
	Days > NAAQS (35 µg/m ³)	0	3	3
	Annual Average (µg/m ³)	11.9	11.0	11.6
<i>Notes:</i>				
<i>Source: California Air Resources Board. http://www.arb.ca.gov/adam/topfour/topfour1.php. Data from the Reseda Monitoring Station, unless otherwise noted.</i>				
<i>(1) CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million</i>				
<i>(2) Data obtained from the Los Angeles - North Main Street Station.</i>				
<i>* Means there was insufficient data available to determine value.</i>				

A. Ozone

During the 2019 to 2021 monitoring period, the State 1-hour concentration standard for ozone was exceeded between 4 and 14 days at the Reseda Station. The State/Federal 8-hour ozone standard has been exceeded between 31 and 62 days each year over the past three years at the Reseda Station. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of the SCAQMD contribute to the ozone levels experienced at the monitoring station, with the more significant areas being those directly upwind.

B. Carbon Monoxide

CO is another important pollutant that is due mainly to motor vehicles. The Reseda Station did not record an exceedance of the state or federal 8-hour CO standard for the last three years.

C. Nitrogen Dioxide

The Reseda Station did not record an exceedance of the State or Federal NO₂ standards for the last three years.

D. Particulate Matter

From 2019 to 2021, the State 24-hour concentration standards for PM₁₀ was exceeded between 14 and 34 days at the Los Angeles – North Main Street Station. There was insufficient data to determine the number of days the Federal standards for PM₁₀ were exceeded. Over the past three years, the Federal 24-hour standards for PM_{2.5} were exceeded for 3 days at the Reseda Station.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

4. AIR QUALITY STANDARDS

A. Significance Thresholds

i) Appendix G of the State CEQA Guidelines

Appendix G of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make a significance determination. Pursuant to Appendix G, the project would result in a significant impact related to air quality if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The CEQA Guidelines Section 15064.7 provides the significance criteria established by the applicable air quality management district or air pollution control district, when available, may be relied upon to make determinations of significance. The potential air quality impacts of the project are, therefore, evaluated according to thresholds developed by SCAQMD in their CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance, which are listed below.⁶ Therefore, the project would result in a potentially significant impact to air quality if it would:

AIR-1: Conflict with or obstruct the implementation of the applicable air quality plan;

AIR-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation as a result of:

- Criteria pollutant emissions during construction (direct and indirect) in excess of the SCAQMD's regional significance thresholds,
- Criteria pollutant emissions during operation (direct and indirect) in excess of the SCAQMD's regional significance thresholds.

AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);

AIR-4: Expose sensitive receptors to substantial pollutant concentrations that would:

- Exceed SCAQMD's localized significance thresholds,
- Cause or contribute to the formation of CO hotspots.

AIR-5: Create objectionable odors affecting a substantial number of people.

B. Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, the SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the South Coast

⁶ While the SCAQMD CEQA Air Quality Handbook contains significance thresholds for lead, project construction and operation would not include sources of lead emissions and would not exceed the established thresholds for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from industrial land use projects such as the project. As a result, lead emissions are not further evaluated herein.

Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in **Table 5, SCAQMD Air Quality Significance Thresholds**.

Table 5
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds	
Pollutant	Operation (lbs/day)
NO _x	55
VOC	55
PM ₁₀	150
PM _{2.5}	55
SO _x	150
CO	550
Lead	3
Toxic Air Contaminants, Odor and GHG Thresholds	
TACs	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index > 1.0 (project increment)
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402
GHG	10,000 MT/yr CO ₂ e for industrial projects
Ambient Air Quality Standards	
Pollutant	SCAQMD Standards
NO ₂ -1-hour average Annual arithmetic mean	0.18 ppm (338 $\mu\text{g}/\text{m}^3$) 0.03 ppm (state) and 0.0534 (federal)
PM ₁₀ -24-hour average Construction Operations Annual average	10.4 $\mu\text{g}/\text{m}^3$ 2.5 $\mu\text{g}/\text{m}^3$ 1.0 $\mu\text{g}/\text{m}^3$
PM _{2.5} -24-hour average Construction Operations	10.4 $\mu\text{g}/\text{m}^3$ 2.5 $\mu\text{g}/\text{m}^3$
SO ₂ 1-hour average 24-hour average	0.25 ppm (state) and 0.075 ppm (federal – 99 th percentile) 0.04 ppm (state)
CO 1-hour average 8-hour average	20 ppm (23,000 $\mu\text{g}/\text{m}^3$) 9 ppm (10,000 $\mu\text{g}/\text{m}^3$)
Lead 30-day average Rolling 3-month average Quarterly average	1.5 $\mu\text{g}/\text{m}^3$ 0.15 $\mu\text{g}/\text{m}^3$ 1.5 $\mu\text{g}/\text{m}^3$
Source: AQMD. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2 .	

C. Local Air Quality and Localized Significance Thresholds

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significance Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. The SCAQMD has also provided Final Localized Significant Threshold Methodology (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The Localized Significant Threshold Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The significance thresholds for the local emissions of NO₂ and CO are determined by subtracting the highest background concentration from the last three years of these pollutants from **Table 4**, above, from the most restrictive ambient air quality standards for these pollutants that are outlined in the Localized Significant Thresholds. **Table 5**, above, shows the ambient air quality standards for NO₂, CO, and PM₁₀ and PM_{2.5}.

D. Toxic Air Contaminants (TACs)

i) Construction

Temporary TAC emissions associated with DPM emissions from heavy construction equipment would occur during the construction phase of the project. According to the Office of Environmental Health Hazard Assessment (OEHHA)⁷ and the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (August 2003),⁸ health effects from TACs are 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 lifetime will contract cancer based on the use of standard risk-assessment methodology. Additionally, the SCAQMD CEQA guidance does not require a HRA for short-term construction emissions. Construction activities associated with the project would be sporadic, transitory, and short-term in nature (approximately 24 months). Thus, construction of the project would not result in a substantial, long-term (i.e., 30-year) source of TAC emissions. Nonetheless, a qualitative assessment of TAC emissions associated with short-term construction TAC emissions is provided in the analysis section below.

⁷ Office of Environmental Health Hazard Assessment, *Air Toxic Hot Spots Program Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessment*, February 2015. <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>.

⁸ 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*, August 2003. <http://www.aqmd.gov/docs/default-source/ceqa/handbook/mobile-source-toxics-analysis.doc?sfvrsn=2>.

ii) Operation

CARB published the *Air Quality and Land Use Handbook* in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid 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); (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; and (4) avoid siting sensitive receptors within 300 feet of a large gasoline dispensing facility (3.6 million gallons per year or more) or 50 feet of a typical gasoline dispensing facility (less than 3.6 million gallons per year). The closest freeway, the 405 freeway, is located approximately 1.65 miles east of the site, and there are no gas stations or dry cleaners located in the project vicinity; therefore, emissions from these types of TAC sources are not anticipated.

E. Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons 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.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

If the project results in a violation of Rule 402 with regards to odor impacts, then the project would create a significant odor impact.

5. SHORT-TERM CONSTRUCTION EMISSIONS

Construction activities associated with the project would have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Assumptions for the phasing, duration, and required equipment for the construction of the project were obtained from the project applicant. The

construction activities for the project are anticipated to include: demolition of the existing 4,212 SF commercial building and approximately 45,000 square feet (SF) of existing parking lot,⁹ site preparation/foundation work, construction of a 110,891 SF, 4-story apartment complex with 111 dwelling units, plus 5,300 SF of commercial uses, and 182-space, approximately 72,800 SF subterranean parking garage, paving, and application of architectural coatings. The project is anticipated to export approximately 23,000 CY of material during site preparation. See Appendix A for more details.

The project is anticipated to start construction no sooner than September 2023 and take approximately 24 months to complete. The project is anticipated to be operational in 2025.

A. Methodology

The following provides a discussion of the methodology used to calculate regional construction air emissions and an analysis of the project's short-term construction emissions for the criteria pollutants. The construction-related regional air quality impacts have been analyzed for both criteria pollutants and GHGs.

Emissions are estimated using the CalEEMod (Version 2022.1.1.6) software, which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The input values used in this analysis were adjusted to be project-specific for the construction schedule and the equipment used was based on CalEEMod defaults. The CalEEMod program uses the EMFAC2021 computer program to calculate the emission rates specific for Los Angeles County for construction-related employee vehicle trips and the OFFROAD2017 computer program to calculate emission rates for heavy truck operations. EMFAC2021 and OFFROAD2017 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour. Daily truck trips and CalEEMod default trip length data were used to assess roadway emissions from truck exhaust. The maximum daily emissions are estimated values for the worst-case day

⁹ *Parking lot is assumed to be 0.3 feet thick, which would yield 303.75 tons of asphalt. The 4,212 SF building would yield 193.8 tons of demolition debris. The total demolition debris = 497.55 tons.*

and do not represent the emissions that would occur for every day of project construction. The maximum daily emissions are compared to the SCAQMD daily regional numeric indicators. Detailed construction equipment lists, construction scheduling, and emission calculations are provided in Appendix A.

The project will be required to comply with existing SCAQMD rules for the reduction of fugitive dust emissions. SCAQMD Rule 403 establishes these procedures. Compliance with this rule is achieved through application of standard best management practices in construction and operation activities, such as application of water or chemical stabilizers to disturbed soils, managing haul road dust by application of water, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 mph, sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph and establishing a permanent, stabilizing ground cover on finished sites. In addition, projects that disturb 50 acres or more of soil or move 5,000 cubic yards of materials per day are required to submit a Fugitive Dust Control Plan or a Large Operation Notification Form to SCAQMD. Based on the size of the project area (approximately 1.13 acres) a Fugitive Dust Control Plan or Large Operation Notification would not be required.

SCAQMD's Rule 403 minimum requirements require that the application of the best available dust control measures is used for all grading operations and include the application of water or other soil stabilizers in sufficient quantity to prevent the generation of visible dust plumes. Compliance with Rule 403 would require the use of water trucks during all phases where earth moving operations would occur. Compliance with Rule 403 has been included in the CalEEMod modeling for the project.

Per SCAQMD Rule 1113 as amended on June 3, 2011, the architectural coatings that would be applied to buildings after January 1, 2014 will be limited to an average of 50 grams per liter or less. CalEEMod defaults have been adjusted accordingly.

The phases of the construction activities which have been analyzed below for each phase are: (1) demolition, (2) site preparation/foundation work (3) building construction, (4) paving, and (5) application of architectural coatings. Details pertaining to the project's construction timing and the type of equipment modeled for each construction phase are available in the CalEEMod output in Appendix A of this technical report.

B. Construction-Related Regional Impacts

The construction-related criteria maximum daily pollutant emissions for each phase are shown below in **Table 6 Construction-Related Regional Pollutant Emissions**. **Table 6** shows the worst-case of either summer or winter criteria pollutant maximum daily emissions and that none of the project's emissions will exceed regional thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the project.

Table 6
Construction-Related Regional Pollutant Emissions

Activity	Maximum Pollutant Emissions (pounds/day)					
	ROG	NOx	CO	SO ₂	PM10	PM2.5
Maximum Daily Emissions ^{1,2}	13.1	18.9	21.6	0.03	3.68	2.04
SCAQMD Thresholds	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No
<i>Notes:</i> (1) Includes emissions from on-site and off-site. On-site emissions from equipment operated on-site that is not operated on public roads. Emissions include compliance with SCAQMD Rule 403. (2) Construction and painting phases may overlap.						
Source: CalEEMod Version 2022.1.1.6						

C. Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The project has been analyzed for the potential local air quality impacts created from: construction-related fugitive dust and diesel emissions; from toxic air contaminants; and from construction-related odor impacts. The local air quality emissions from construction were analyzed using the SCAQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in *Localized Significance Threshold Methodology* prepared by SCAQMD (revised July 2008). The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM₁₀, and PM_{2.5} from the project could result in a significant impact to the local air quality. The emission thresholds were calculated based on the West San Fernando Valley source receptor area (SRA) 6 and a disturbance value of one acre per day (as the site is 1.13 acres). According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds.

The nearest sensitive receptors to the project site are: the multi-family residential uses located adjacent to the northeastern corner of the site, the single-family residential uses located approximately 40 feet (approximately 12 meters) north of the site, north of Cantlay Street; the single-family residential uses located approximately 50 feet (approximately 15 meters) west of the site, west of Genesta Avenue; and the single family residential uses located approximately 134 feet (approximately 41 meters) southwest of the site, south of Sherman Way; therefore, the SCAQMD 25-meter Look-up Tables was used. **Table 7, Local Construction Emissions at the Nearest Receptors**, shows the on-site emissions from the CalEEMod model for the different construction phases and the LST emissions thresholds. Other air quality sensitive land uses are located further from the project site and would experience lower impacts.

The data provided in **Table 7** shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction of the project.

Table 7
Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	17.0	16.9	1.1	0.75
Site Preparation/Foundation	17.2	16.5	3.01	1.86
Building Construction	9.44	10.1	0.37	0.34
Architectural Coating	1.42	1.72	0.03	0.03
SCAQMD Thresholds¹	103	426	4	3
Exceeds Threshold?	No	No	No	No
<i>Notes:</i>				
<i>(1) The nearest sensitive receptors to the site are: the multi-family residential uses located adjacent to the northeastern corner of the site, the single-family residential uses located approximately 40 feet (approximately 12 meters) north of the site, north of Cantlay Street; the single-family residential uses located approximately 50 feet (approximately 15 meters) west of the site, west of Genesta Avenue; and the single family residential uses located approximately 134 feet (approximately 41 meters) southwest of the site, south of Sherman Way; therefore, the 25-meter threshold was used.</i>				
<i>Source: Calculated from CalEEMod and SCAQMD's Mass Rate Look-up Tables for 1 acre, at a distance of 25 m in SRA 6 West San Fernando Valley.</i>				

D. Construction-Related Toxic Contaminant Impacts

The greatest potential for toxic air contaminant emissions would be related to diesel particulate emissions associated with heavy equipment operations during construction of the project. According to the Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (August 2003), health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 30-year) resident exposure duration. Given the temporary and short-term construction schedule (approximately 24 months), the project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of project construction. Furthermore, construction-based particulate matter (PM) emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds.

The project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. Therefore, impacts from TACs during construction would be less than significant.

E. Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement. The objectionable odors that may be produced during the construction process are of short-term in nature and the odor emissions are expected to cease upon the drying or hardening of the odor producing materials. Due to the short-term nature and limited amounts of odor producing materials being utilized, no significant impact related to odors would occur during construction of the project. Diesel exhaust and VOCs would be emitted during construction of the project, which are objectionable to some; however, emissions would disperse rapidly from the project site and therefore should not reach an objectionable level at the nearest sensitive receptors.

6. LONG-TERM OPERATIONAL EMISSIONS

The on-going operation of the project would result in a long-term increase in air emissions. This increase would be due to emissions from the project-generated vehicle trips and through other operational emissions from the on-going use of the project. The following section provides an analysis of potential long-term air quality impacts due to: regional air quality impacts with the on-going operations of the project.

A. Operations-Related Regional Air Quality Impacts

The operations-related criteria air quality impacts created by the project have been analyzed through the use of the CalEEMod model. The operating emissions were based on the year 2025, which is the anticipated opening year for the project. The operational emissions printouts from the CalEEMod model are provided in Appendix A. The CalEEMod analyzes operational emissions from area sources, energy usage, and mobile sources, which are discussed below.

i) Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the project. The vehicle trips associated with the project have been analyzed by inputting the project-generated VMT data from the City of Los Angeles Transportation Impact Assessment (TIA) for the Sherman Way Mixed-Use Project (January 5, 2023) for the project into the CalEEMod Model. The VMT analysis in the TIA showed that the project would generate 767 daily vehicle trips and 6,017 daily VMT. The highest mobile source emissions for weekday and weekends were reported in **Table 8, Regional Operational Pollutant Emissions**. The CalEEMod program then applies the emission factors for each trip, which is provided by the EMFAC2021 model, to determine the vehicular traffic pollutant emissions.

Table 8
Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (tons/year)					
	ROG	NOx	CO	SO2	PM10	PM2.5
Maximum Daily Emissions	6.43	2.44	30.9	0.05	1.75	0.37
SCAQMD Thresholds	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No
<i>Notes:</i>						
<i>Source: CalEEMod Version 2022.1.1.6; the higher of either summer or winter emissions (see Appendix A for CalEEMod output).</i>						

ii) Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers, as well as air compressors, generators, and pumps. As specifics were not known about the landscaping equipment fleet, CalEEMod defaults were used to estimate emissions from landscaping equipment. No changes were made to the default area source parameters.

iii) Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No changes were made to the default energy usage parameters.

iv) Project Impacts

The worst-case summer or winter criteria pollutant emissions created from the project's long-term operations have been calculated and are shown in **Table 8**, above. **Table 8** shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the project.

B. Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analysis analyzes the vehicular CO emissions, local impacts from on-site operations per SCAQMD LST methodology, and odor impacts.

i) Local CO Emission Impacts from Project-Related Vehicular Trips

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

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

The analysis prepared for CO attainment in the South Coast Air Basin by the SCAQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the SCAQMD's 2003 Air Quality Management Plan (2003 AQMP) and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak carbon monoxide concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of particular intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The intersections evaluated included: South 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). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles Department of Transportation evaluated the Level of Service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour.

The VMT analysis in the TIA showed that the project would generate 767 daily vehicle trips. Traffic count data from NavigateLA shows that the traffic volumes at Balboa Boulevard south of Sherman Way (the closest intersection with available data) would total 30,888 average daily trips (ADT). The 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan) showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. If all of the project's traffic were added to that road segment, the traffic volume would increase to 31,655 ADT. Therefore, as the existing plus project traffic volumes would fall far short of 100,000 vehicles, no CO

“hot spot” modeling was performed and no significant long-term air quality impact is anticipated to local air quality with the on-going use of the project.

ii) Local Air Quality Impacts from On-Site Operations

Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, on-site usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. The nearest sensitive receptors to the project site are: the multi-family residential uses located adjacent to the northeastern corner of the site, the single-family residential uses located approximately 40 feet north of the site, north of Cantlay Street; the single-family residential uses located approximately 50 feet west of the site, west of Genesta Avenue; and the single-family residential uses located approximately 134 feet southwest of the site, south of Sherman Way.

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

C. Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the project would include odor emissions from the intermittent diesel delivery truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD’s Rule 402 no significant impact related to odors would occur during the on-going operations of the project.

7. CUMULATIVE AIR QUALITY IMPACTS

There are a number of cumulative projects in the project area that have not yet been built or are currently under construction. Since the timing or sequencing of the cumulative projects is unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. Further, cumulative projects include local development as well as general growth within the project area. However, as with most development, the greatest source of emissions is from mobile sources, which travel well out of the local area. Therefore, from an air quality standpoint, the cumulative analysis would extend beyond any local projects and when wind patterns are considered would cover an even larger area. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine the potential

cumulative impacts to regional air quality;¹⁰ and (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

A. Project Specific Impacts

The project area is out of attainment for ozone and in 2021 was out of attainment for PM₁₀, as indicated in **Table 3**. Construction and operation of cumulative projects will further degrade the local air quality, as well as the air quality of the South Coast Air Basin. The greatest cumulative impact on the quality of regional air quality will be the incremental addition of pollutants mainly from increased traffic volumes from residential, commercial, and industrial development and the use of heavy equipment and trucks associated with the construction of these projects. Air quality will be temporarily degraded during construction activities that occur separately or simultaneously. However, in accordance with the SCAQMD methodology, projects that do not exceed the SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. As stated previously, the Air Basin is currently in non-attainment for ozone, PM₁₀, and PM_{2.5}.

The project would result in the emission of criteria pollutants for which the region is in nonattainment during both construction and operation. The emissions from construction of the project are not predicted to exceed any applicable SCAQMD regional or local impact threshold and therefore, are not expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Therefore, the project would not result in a cumulatively considerable net increase for non-attainment pollutants or ozone precursors and would result in a less than significant impact for construction emissions.

Project operations would generate emissions of NO_x, ROG, CO, PM₁₀, and PM_{2.5}, which would not exceed the SCAQMD regional or local thresholds and would not be expected to result in ground level concentrations that exceed the NAAQS or CAAQS. Since the project would not introduce any substantial stationary sources of emissions, CO is the benchmark pollutant for assessing local area air quality impacts from post-construction motor vehicle operations. As indicated earlier, no violations of the state and federal CO standards are projected to occur for the project, based on the magnitude of traffic the project is anticipated to create. Therefore, operation of the project would not result in a cumulatively considerable net increase for non-attainment of criteria pollutants or ozone precursors. As a result, the project would result in a less than significant cumulative impact for operational emissions.

¹⁰ South Coast Air Quality Management District, *Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, 1993*, <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

B. Air Quality Compliance

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a project and applicable General Plans and Regional Plans (CEQA Guidelines Section 15125). The regional plan that applies to the project includes the SCAQMD Air Quality Management Plan (AQMP). Therefore, this section discusses any potential inconsistencies of the project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended General Plan Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP". Strict consistency with all aspects of the plan is usually not required. A project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- (2) Whether the project will exceed the assumptions in the AQMP in 2022 or increments based on the year of project buildout and phase.

Both of these criteria are evaluated below.

i) Air Quality Compliance Analysis

1) Criteria 1 – Increase in the Frequency or Severity of Violations

Based on the air quality modeling analysis contained in this Air Quality Analysis, short-term construction impacts will not result in significant impacts based on the SCAQMD regional and local thresholds of significance. This Air Analysis also found that long-term operations impacts will not result in significant impacts based on the SCAQMD local and regional thresholds of significance.

Therefore, the project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

2) Criteria 2 – Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the project are based on the same forecasts as the AQMP. The *2020-2045 Regional Transportation/Sustainable Communities Strategy* prepared by SCAG (2020) includes chapters on: the challenges in a changing region, creating a plan for our future, and the road to greater mobility and sustainable growth. These chapters currently respond directly to federal and state requirements placed on SCAG. Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For this project, the City of Los Angeles Land Use Plan defines the assumptions that are represented in the AQMP.

The project site is located in the Reseda – West Van Nuys Community Plan area and has a General Plan Land Use Designation of Neighborhood Office Commercial. The project site is zoned (Q)C1-1VL, P-1VL. The project will include a JJJ compliant Vesting Zone Change from (Q)C1-1VL, CR-1VL, P-1VL to (T)(Q)RAS4-1VL. Under Measure JJJ and pursuant to the Los Angeles Municipal Code (LAMC) Section 11.511(e), the Applicant is requesting two developer's incentives for, 1) a reduction in parking to allow 160 residential automobile parking spaces and 2) relief from General Plan Footnote 7 to allow 4 stories in lieu of 3 stories. Site Plan Review is required for a residential development with proposed base density Greater than 50 units.

The project consists of the construction and operation of a mixed-use building that contains 111 apartments, 5,300 SF of commercial use, and a 178-space subterranean parking structure. C1 uses allow for Local Retail Stores < 100,000 sq-ft, Offices or Businesses, Hotels, Hospitals and/or Clinics, Parking Areas, CR Uses except for Churches, Schools, Museums, R3 Uses. With the zone change, R4 uses, Limited ground floor commercial will be allowed. Although the current zoning may initially result in an inconsistency with the AQMP on paper, the inconsistency would not necessarily constitute a conflict with the AQMP. The SCAQMD acknowledges that strict consistency with all aspects of the AQMP is not required in order to make a finding of no conflict. Rather, a project is considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The benefits of high-density development include reduced congestion and vehicle emissions (due to increased walkability and alternative transportation options), smaller ecological footprints, and long-term economic sustainability. Furthermore, the project would implement contemporary energy-efficient technologies and regulatory/operational programs required per Title 24, CALGreen and City standards. Generally, compliance with SCAQMD emissions reductions and control requirements also act to reduce project air pollutant emissions. Project compliance with regulatory/operational programs is consistent with and supports overarching AQMP air pollution reduction strategies. Project support of these strategies promotes timely attainment of AQMP air quality standards and would bring the project into conformance with the AQMP. Therefore, the project is not anticipated to exceed the AQMP

assumptions for the project site and is found to be consistent with the AQMP for the second criterion. Therefore, a less than significant impact will occur.

III. GLOBAL CLIMATE CHANGE ANALYSIS

1. EXISTING GREENHOUSE GAS ENVIRONMENT

Constituent gases of the Earth's atmosphere, called atmospheric greenhouse gases (GHG), play a critical role in the Earth's radiation amount by trapping infrared radiation emitted from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Transportation is responsible for 41 percent of the State's greenhouse gas emissions, followed by electricity generation. Emissions of CO₂ and nitrous oxide (NO_x) are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

A. Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop". The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

B. Carbon Dioxide (CO₂)

The natural production and absorption of CO₂ is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s. Each of these activities has increased in scale and distribution. CO₂ was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC Fifth Assessment Report, 2014) Emissions of CO₂ from fossil fuel combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010. Globally, economic and population growth continued to be the most important drivers of increases in CO₂ emissions from fossil fuel combustion. The contribution of population growth between 2000 and 2010 remained roughly identical to the previous three decades, while the contribution of economic growth has risen sharply.

C. Nitrous Oxide (N₂O)

Concentrations of N₂O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N₂O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is also commonly used as an aerosol spray propellant, (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and in race cars).

D. Hydrofluorocarbons (HFC)

HFCs are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

E. Perfluorocarbons (PFC)

PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface can destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two

common PFCs are tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆). Concentrations of CF₄ in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

F. Sulfur Hexafluoride (SF₆)

SF₆ is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF₆ has the highest global warming potential of any gas evaluated; 23,900 times that of CO₂. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

G. Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

H. Global Warming Potential

The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period, relative to the emissions of 1 ton of carbon dioxide (CO₂). The larger the GWP, the more that a given gas warms the Earth compared to CO₂ over that time period. The time period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gases (e.g., to compile a national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gases. A summary of the atmospheric lifetime and the global warming potential of selected gases are summarized in **Table 9, Global Warming Potentials and Atmospheric Lifetimes**. As shown in **Table 9**, the global warming potential of GHGs ranges from 1 to 22,800.

Table 9
Global Warming Potentials and Atmospheric Lifetimes

Gas	Atmospheric Lifetime	Global Warming Potential¹ (100 Year Horizon)
Carbon Dioxide (CO ₂)	— ²	1
Methane (CH ₄)	12	28-36
Nitrous Oxide (NO)	114	298
Hydrofluorocarbons (HFCs)	1-270	12-14,800
Perfluorocarbons (PFCs)	2,600-50,000	7,390-12,200
Nitrogen trifluoride (NF ₃)	740	17,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Notes:

(1) Compared to the same quantity of CO₂ emissions.

(2) Carbon dioxide's lifetime is poorly defined because the gas is not destroyed over time, but instead moves among different parts of the ocean-atmosphere-land system. Some of the excess carbon dioxide will be absorbed quickly (for example, by the ocean surface), but some will remain in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments.

Source: US Environmental Protection Agency, Overview of Greenhouse Gases.
<http://www3.epa.gov/climatechange/ghgemissions/gases.html>.

2. GREENHOUSE GAS STANDARDS AND REGULATION

A. International

i) *Montreal Protocol*

In 1988, the United Nations established the Intergovernmental Panel on Climate Change (IPCC) to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

ii) *The Paris Agreement*

The Paris Agreement became effective on November 4, 2016. Thirty days after this date at least 55 Parties to the United Nations Framework Convention on Climate Change (Convention), accounting in total for at

least an estimated 55 % of the total global greenhouse gas emissions, had deposited their instruments of ratification, acceptance, approval, or accession with the Depositary.

The Paris Agreement built upon the Convention and – for the first time – attempted to bring all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort.

The Paris Agreement’s central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. Although the Trump administration withdrew the United States federal government from the Paris Agreement on November 4, 2020, the current administration reversed course and the federal government rejoined the Paris Agreement on January 20, 2021.

B. Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the ENERGY STAR labeling system for energy-efficient products) play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), argued November 29, 2006, and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO₂ and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009, that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was

signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions will not themselves impose any requirements on industry or other entities. However, it is a prerequisite to finalizing the EPA's proposed GHG emission standards for light-duty vehicles, which were jointly proposed by the EPA and Department of Transportation on September 15, 2009.

On February 14, 2023, the EPA announced initial guidance on the design of the Greenhouse Gas Reduction Fund (GGRF) program, created by President Biden's Inflation Reduction Act. EPA published two Federal Assistance Listings outlining key parameters of the grant competitions that will ultimately award nearly \$27 billion to leverage private capital for clean energy and clean air investments across the country. Federal Assistance Listings are the first public notice requirement to implement a federal grant program. The Inflation Reduction Act invests \$350 million for grants, technical assistance and tools, including carbon labeling, to help manufacturers, institutional buyers, real estate developers, builders and others measure, report and substantially lower the levels of embodied carbon and other greenhouse gas emissions associated with all relevant stages of production, use and disposal of construction materials and products including steel, concrete, asphalt and glass.

Embodied greenhouse gas emissions refer to the amount of greenhouse gas (GHG) emissions associated with the extraction, production, transport and manufacturing of materials. Low embodied carbon materials have less climate impact associated with mining, manufacturing and transportation. Traditionally, steel, concrete, asphalt and flat glass contain a high quantity of embodied emissions due to the energy-intensive processes used to extract raw materials like limestone, taconite ore and silica and then converting those raw materials into products.

EPA's Pollution Prevention program will implement these programs to:

- Spur market demand for construction materials and products that have substantially lower embodied greenhouse gas emissions;
- Increase the transparency of greenhouse gas emissions data associated with the production, use, and disposal of construction materials and products; and

- Assist businesses in disclosing and verifying these data, as well as states, Indian tribes and non-profit organizations that assist these businesses.

i) Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 202 of the federal Clean Air Act (CAA) to regulate GHGs. The court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

ii) Energy Independence Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.⁸

iii) Executive Order 13432

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation. Light-Duty Vehicle Greenhouse Gas and Corporate Average Fuel Economy Standards.

On May 19, 2009, President Obama announced a national policy for fuel efficiency and emissions standards in the United States auto industry. The adopted federal standard applies to passenger cars and light-duty trucks for model years 2012 through 2016. The rule surpasses the prior Corporate Average Fuel Economy standards (CAFE)⁹ and requires an average fuel economy standard of 35.5 miles per gallon (mpg) and 250 grams of CO₂ per mile by model year 2016, based on USEPA calculation methods. These standards were formally adopted on April 1, 2010. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO₂ per mile. According to the USEPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle.¹⁰ In 2017, the USEPA recommended no change to the GHG standards for light-duty vehicles for model years 2022-2025.

Issued by NHTSA and EPA in March 2020 (published on April 30, 2020 and effective after June 29, 2020), the Safer Affordable Fuel-Efficient Vehicles Rule would maintain the CAFE and CO₂ standards applicable in model year 2020 for model years 2021 through 2026. The estimated CAFE and CO₂ standards for model year 2020 are 43.7 mpg and 204 grams of CO₂ per mile for passenger cars and 31.3 mpg and 284 grams of CO₂ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. This Rule also excludes CO₂- equivalent emission improvements

⁸ A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

⁹ The Corporate Average Fuel Economy standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the Corporate Average Fuel Economy standards.

¹⁰ United States Environmental Protection Agency, EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks, August 2012, <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100E27C.PDF?Dockey=P100E27C.PDF>.

associated with air conditioning refrigerants and leakage (and, optionally, offsets for nitrous oxide and methane emissions) after model year 2020.¹¹

C. State of California

i) California Air Resources Board

CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, CARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards [CAAQS]), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2004, the California Air Resources Board (CARB) adopted an Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants (Title 13 California Code of Regulations [CCR], Section 2485). 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 generally does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location with certain exemptions for equipment in which idling is a necessary function such as concrete trucks. While this measure primarily targets diesel particulate matter emissions, it has co-benefits of minimizing GHG emissions from unnecessary truck idling.

In 2008, CARB approved the Truck and Bus regulation to reduce particulate matter and nitrogen oxide emissions from existing diesel vehicles operating in California (13 CCR, Section 2025, subsection (h)). CARB has also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by the CARB on July 26, 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. While these regulations primarily target reductions in criteria air pollutant emission, they have co-benefits of minimizing GHG emissions due to improved engine efficiencies.

¹¹ National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA), 2018. *Federal Register / Vol. 83, No. 165 / Friday, August 24, 2018 / Proposed Rules, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks 2018*. Available at: <https://www.gpo.gov/fdsys/pkg/FR-2018-08-24/pdf/2018-16820.pdf>.

The State currently has no regulations that establish ambient air quality standards for GHGs. However, the State has passed laws directing CARB to develop actions to reduce GHG emissions, which are listed below.

ii) Assembly Bill 1493

California Assembly Bill 1493 enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a “waiver” request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO₂ and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007, the EPA announced that it denied the “waiver” request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State’s request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009. EPA’s recent withdrawal of the waiver was upheld by the Ninth Circuit on February 10, 2021. Per CARB, while the federal action is in effect, CARB will administer the zero-emission vehicle program on a voluntary basis. After adopting these initial greenhouse gas standards for passenger vehicles, CARB adopted continuing standards for future model years.

iii) Executive Order S-3-05

The California Governor issued Executive Order S-3-05, GHG Emission, in June 2005, which established the following reduction targets:

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

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs.

iv) Executive Order N-79-20

Executive Order N-79-20 Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to

develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment “requiring increasing volumes” of new zero emission vehicles (ZEVs) “towards the target of 100 percent.” The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

vi) *Assembly Bill 32 (California Health and Safety Code, Division 25.2. – California Global Warming Solutions Act of 2006)*

In 2006, the California State Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

vii) *Senate Bill 32 and Assembly Bill 197*

In 2016, the California State Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197, and both were signed by Governor Brown. SB 32 and AB 197 amends HSC Division 25.5 and establishes a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and includes provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

viii) *Climate Change Scoping Plan (2008)*

A specific requirement of AB 32 was to prepare a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020 (Health and Safety Code section 38561 (h)). CARB developed an AB 32 Scoping Plan that contains strategies to achieve the 2020 emissions cap. The initial Scoping Plan was approved in 2008 and contains a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the State’s long-range climate objectives.

As required by HSC Division 25.5, CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was originally set at 427 MMTCO₂e using the GWP values from the IPCC SAR. CARB also projected the state’s 2020 GHG emissions under no-action-taken

(NAT) conditions – that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. CARB originally used an average of the state’s GHG emissions from 2002 through 2004 and projected the 2020 levels at approximately 596 MMTCO_{2e} (using GWP values from the IPCC SAR). Therefore, under the original projections, the state must reduce its 2020 NAT emissions by 28.4 percent in order to meet the 1990 target of 427 MMTCO_{2e}.

viii) First Update to the Climate Change Scoping Plan (2014)

The First Update to the Scoping Plan was approved by CARB in May 2014 and builds upon the initial Scoping Plan with new strategies and recommendations. In 2014, CARB revised the target using the GWP values from the IPCC AR4 and determined that the 1990 GHG emissions inventory and 2020 GHG emissions limit is 431 MMTCO_{2e}. CARB also updated the State’s 2020 NAT emissions estimate to account for the effect of the 2007–2009 economic recession, new estimates for future fuel and energy demand, and the reductions required by regulation that were recently adopted for motor vehicles and renewable energy. CARB’s projected statewide 2020 emissions estimate using the GWP values from the IPCC AR4 was 509.4 MMTCO_{2e}.

ix) 2017 Climate Change Scoping Plan

In response to the 2030 GHG reduction target, CARB adopted the 2017 Climate Change Scoping Plan at a public meeting held in December 2017. The 2017 Scoping Plan outlines the strategies the State will implement to achieve the 2030 GHG reduction target of 40 percent below 1990 levels. The 2017 Scoping Plan also addresses GHG emissions from natural and working lands of California, including the agriculture and forestry sectors. The 2017 Scoping Plan considered the Scoping Plan Scenario and four alternatives for achieving the required GHG reductions but ultimately selected the Scoping Plan Scenario.

CARB states that the Scoping Plan Scenario “is the best choice to achieve the State’s climate and clean air goals.”¹² Under the Scoping Plan Scenario, the majority of the reductions would result from the continuation of the Cap-and-Trade regulation. Additional reductions are achieved from electricity sector standards (i.e., utility providers to supply at least 50 percent renewable electricity by 2030), doubling the energy efficiency savings at end uses, additional reductions from the LCFS, implementing the short-lived GHG strategy (e.g., hydrofluorocarbons), and implementing the mobile source strategy and sustainable freight action plan. The alternatives were designed to consider various combinations of these programs, as well as consideration of a carbon tax in the event the Cap-and-Trade regulation is not continued. However, in July 2017, the California Legislature voted to extend the Cap-and-Trade regulation to 2030. Implementing this Scoping Plan will ensure that California’s climate actions continue to promote innovation, drive the generation of new jobs, and achieve continued reductions of smog and air toxics.

¹² California Air Resources Board, *California’s 2017 Climate Change Scoping Plan*, November 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

The ambitious approach draws on a decade of successful programs that address the major sources of climate-changing gases in every sector of the economy:

- **More Clean Cars and Trucks:** The plan sets out far-reaching programs to incentivize the sale of millions of zero-emission vehicles, drive the deployment of zero-emission trucks, and shift to a cleaner system of handling freight statewide.
- **Increased Renewable Energy:** California’s electric utilities are ahead of schedule meeting the requirement that 33 percent of electricity come from renewable sources by 2020. The Scoping Plan guides utilities to 50 percent renewables, as required under SB 350.
- **Slashing Super-Pollutants:** The plan calls for a significant cut in super-pollutants such as methane and HFC refrigerants, which are responsible for as much as 40 percent of global warming.
- **Cleaner Industry and Electricity:** California’s renewed cap-and-trade program extends the declining cap on emissions from utilities and industries and the carbon allowance auctions. The auctions will continue to fund investments in clean energy and efficiency, particularly in disadvantaged communities.
- **Cleaner Fuels:** The Low Carbon Fuel Standard will drive further development of cleaner, renewable transportation fuels to replace fossil fuels.
- **Smart Community Planning:** Local communities will continue developing plans which will further link transportation and housing policies to create sustainable communities.
- **Improved Agriculture and Forests:** The Scoping Plan also outlines innovative programs to account for and reduce emissions from agriculture, as well as forests and other natural lands.

The 2017 Scoping Plan also evaluates reductions of smog-causing pollutants through California’s climate programs.

x) 2022 Climate Change Scoping Plan

CARB adopted the 2022 Scoping Plan for Achieving Carbon Neutrality on November 16, 2022. The 2022 Scoping Plan lays out the sector-by-sector roadmap for California, the world’s fifth largest economy, to achieve carbon neutrality by 2045 or earlier, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state’s climate target. The Plan addresses recent legislation and direction from Governor Newsom and extends and expands upon earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. The plan also takes the unprecedented step of adding carbon neutrality as a science-based guide and touchstone for California’s climate work. Specifically, this plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.
- Focuses on strategies for reducing California’s dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California’s most impacted communities as driving principles throughout the document.
- Incorporates the contribution of natural and working lands (NWL) to the state’s GHG emissions, as well as their role in achieving carbon neutrality.
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluates the substantial health and economic benefits of taking action.
- Identifies key implementation actions to ensure success.

xi) Senate Bill 32, California Global Warming Solutions Act 2006

The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The state board is required to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions level in 1990 to be achieved by 2020 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective greenhouse gas emissions reductions. This bill would require the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below the 1990 level by 2030.

This bill would become operative only if AB 197 of the 2015–16 Regular Session is enacted and becomes effective on or before January 1, 2017. AB 197 requires that the California Air Resources Board, which directs implementation of emission-reduction programs, should target direct reductions at both stationary and mobile sources. AB 197 of the 2015-2016 Regular Session was approved on September 8, 2016.

xii) Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs the CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009, the CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are "back-loaded", with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today's fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

xiii) Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to the CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009, the Natural Resources Agency adopted amendments to the state CEQA guidelines that address GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporate GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided, and no

specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010, and are summarized below:

- Climate action plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the greenhouse gas emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of greenhouse gas emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation”.
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports (EIRs) must specifically consider a project's energy use and energy efficiency potential.

xiv) Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State’s Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by

July 31, 2010, to enforce S-14-08. Senate Bill X1-2 codifies the 33 percent renewable energy requirement by 2020.

xv) Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). The CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. The CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The proposed project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by the CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

xvi) Senate Bill X7-7

Senate Bill X7-7 (SB X7-7), enacted on November 9, 2009, mandates water conservation targets and efficiency improvements for urban and agricultural water suppliers. SB X7-7 requires the Department of Water Resources (DWR) to develop a task force and technical panel to develop alternative best management practices for the water sector. In addition, SB X7-7 required the DWR to develop criteria for baseline uses for residential, commercial, and industrial uses for both indoor and landscaped area uses. The DWR was also required to develop targets and regulations that achieve a statewide 20 percent reduction in water usage.

xvii) Assembly Bill 939 and Senate Bill 1374

Assembly Bill 939 (AB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling, or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004, suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills.

xviii) California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

2019 standards were published July 1, 2019 and became effective January 1, 2020. The current version of CalEEMod defaults to the 2019 Standards.

Per Section 100 Scope, the 2019 Title 24, Part 6 Building Code now requires healthcare facilities, such as assisted living facilities, hospitals, and nursing homes, to meet documentation requirements of Title 24, Part 1 Chapter 7 – Safety Standards for Health Facilities. A healthcare facility is defined as any building or portion thereof licensed pursuant to California Health and Safety Code Division 2, Chapter 1, Section 1204 or Chapter 2, Section 1250. Section 120.1 Ventilation and Indoor Air Quality included both additions and revisions in the 2019 Code. This section now requires nonresidential and hotel/motel buildings to have air filtration systems that use forced air ducts to supply air to occupiable spaces to have air filters. Further, the air filter efficiency must be either MERV 13 or use a particle size efficiency rating specific in the Energy Code AND be equipped with air filters with a minimum 2-inch depth or minimum 1-inch depth if sized according to the equation 120.1-A. If natural ventilation is to be used the space must also use mechanical unless ventilation openings are either permanently open or controlled to stay open during occupied times. The 2019 version of the Code also completely revised the minimum ventilation requirements including DVC airflow rates within Section 120.1 Table 120.1–A. Table 120.1-A now includes air classification and recirculation limitations, these are based on either the number of occupants or the CFM/ft² (cubic feet per minute per square foot), whichever is greater.

Section 120.1 Ventilation and Indoor Air Quality also included additions for high-rise residential buildings. Requirements include that mechanical systems must provide air filters that and that air filters must be MERV 13 or use a particle size efficiency rating specified in the Energy Code. Window operation is no longer a method allowed to meet ventilation requirements, continuous operation of central forced air system handlers used in central fan integrated ventilation system is not a permissible method of providing the dwelling unit ventilation airflow, and central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow to each dwelling unit. In addition, requirements for kitchen range hoods were also provided in the updated Section 120.1.

Per Section 120.1(a) healthcare facilities must be ventilated in accordance with Chapter 4 of the California Mechanical Code and are NOT required to meet the ventilations requirements of Title 24, Part 6. Section

140.4 Space Conditioning Systems included both additions and revisions within the 2019 Code. The changes provided new requirements for cooling tower efficiency, new chilled water-cooling system requirements, as well as new formulas for calculating allowed fan power. Section 140.4(n) also provide a new exception for mechanical system shut offs for high-rise multifamily dwelling units, while Section 140.4(o) added new requirements for conditioned supply air being delivered to space with mechanical exhaust.

Section 120.6 Covered Processes added information in regards to adiabatic chiller requirements that included that all condenser fans for air-cooled converseness, evaporative-cooled condensers, adiabatic condensers, gas coolers, air or water fluid coolers or cooling towers must be continuously variable speed, with the speed of all fans serving a common condenser high side controlled in unison .Further, the mid-condensing setpoint must be 70 degrees Fahrenheit for all of the above mentioned systems.

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

Section 130.2 Outdoor Lighting Controls and Equipment added automatic scheduling controls which included that outdoor lighting power must be reduced by 50 to 90 percent, turn the lighting off during unoccupied times and have at least two scheduling options for each luminaire independent from each other and with a 2-hour override function. Furthermore, motion sensing controls must have the ability to reduce power within 15 minutes of area being vacant and be able to come back on again when occupied. An exception allows for lighting subject to a health or life safety statute, ordinance, or regulation may have a minimum time-out period longer than 15 minutes or a minimum dimming level above 50% when necessary to comply with the applicable law.

The 2022 Building Energy Efficiency Standards became effective on January 1, 2023.¹³ The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.

¹³ California Energy Commission (CEC). 2022. *Building Energy Efficiency Standards*. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>.

- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state’s progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal systems, and grid integration equipment, such as demand-responsive controls to buoy grid stability.^{14,15}

xix) California Code of Regulations (CCR) Title 24, Part 11 (California Green Building Standards)

1) 2019

2019 CALGreen Code: During the 2019-2020 fiscal year, the Department of Housing and Community Development (HCD) updated the California Green Building Standards Code (CALGreen) through the 2019 Triennial Code Adoption Cycle.

HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with

¹⁴ California Energy Commission. <https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/>

¹⁵ State of California Energy Commission. 2022 Building Energy Efficiency Standards Summary. https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 regarding bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meet one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 regarding showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made regarding the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 regarding the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

2) 2022

The 2022 California Green Building Standards Code became effective on January 1, 2023.¹⁶ The 2022 CALGreen Standards build upon the 2019 CALGreen Standards and have added the following:

HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers.

¹⁶ California Building Standards Commission. 2022. California Green Building Standards. <https://codes.iccsafe.org/content/CAGBC2022P1>.

HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces.¹⁷

xx) Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15. Therein, the Governor directed the following:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

xxi) Executive Order B-29-15

Executive Order B-29-15 mandates a statewide 25 percent reduction in potable water usage. EO B-29-15 signed into law on April 1, 2015.

xxii) Executive Order B-37-16

Executive Order B-37-16, continuing the State's adopted water reductions, was signed into law on May 9, 2016. The water reductions build off the mandatory 25 percent reduction called for in EO B-29-15.

xxiii) Senate Bill X1 2

Signed into law in April 2011, Senate Bill (SB)X1 2, requires one-third of the State's electricity to come from renewable sources. The legislation increases California's current 20 percent renewables portfolio standard target in 2010 to a 33 percent renewables portfolio standard by December 31, 2020.

xxiv) Senate Bill 350

Signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will

¹⁷ California, Building Standards Commission. <https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes>.

detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions, and ramp up the deployment of clean energy resources.

xxv) Executive Order N-79-20

Executive Order N-79-20 was signed into law on September 23, 2020 and mandates 100 percent of in-state sales of new passenger cars and trucks be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the state be zero-emission vehicles by 2045 for all operations where feasible and by 2035 for drayage trucks; and to transition to 100 percent zero-emission off-road vehicles and equipment by 2035 where feasible.

xxvi) Energy Sector and CEQA Guidelines Appendix F

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods. The 2019 update to the Energy Efficiency Standards for Residential and Nonresidential Buildings focuses on several key areas to improve the energy efficiency of renovations and addition to existing buildings as well as newly constructed buildings and renovations and additions to existing buildings. The major efficiency improvements to the residential Standards involve improvements for attics, walls, water heating, and lighting, whereas the major efficiency improvements to the nonresidential Standards include alignment with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards. Furthermore, the 2019 update requires that enforcement agencies determine compliance with CCR, Title 24, Part 6 before issuing building permits for any construction.¹⁸

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The purpose of the CALGreen Code is to “improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality.”¹⁹ As of January 1, 2011, the CALGreen Code is mandatory for all new buildings constructed in the state. The CALGreen Code establishes mandatory measures for new residential and non-residential

¹⁸ California Energy Commission, 2016 Building Energy Efficiency Standards, June 2015, <http://www.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf>

¹⁹ California Building Standards Commission, 2010 California Green Building Standards Code, (2010).

buildings. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2023.

D. Regional – South Coast Air Quality Management District

The project is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD).

i) SCAQMD Regulation XXVII, Climate Change

SCAQMD Regulation XXVII currently includes three rules:

- The purpose of Rule 2700 is to define terms and post global warming potentials.
- The purpose of Rule 2701, SoCal Climate Solutions Exchange, is to establish a voluntary program to encourage, quantify, and certify voluntary, high quality certified greenhouse gas emission reductions in the SCAQMD.
- Rule 2702, Greenhouse Gas Reduction Program, was adopted on February 6, 2009. The purpose of this rule is to create a Greenhouse Gas Reduction Program for greenhouse gas emission reductions in the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

A variety of agencies have developed greenhouse gas emission thresholds and/or have made recommendations for how to identify a threshold. However, the thresholds for projects in the jurisdiction of the SCAQMD remain in flux. The California Air Pollution Control Officers Association explored a variety of threshold approaches but did not recommend one approach (2008). The ARB recommended approaches for setting interim significance thresholds (California Air Resources Board 2008b), in which a draft industrial project threshold suggests that non-transportation related emissions under 7,000 MTCO_{2e} per year would be less than significant; however, the ARB has not approved those thresholds and has not published anything since then. The SCAQMD is in the process of developing thresholds, as discussed below.

ii) SCAQMD Threshold Development

On December 5, 2008, the SCAQMD Governing Board adopted an interim greenhouse gas significance threshold for stationary sources, rules, and plans where the SCAQMD is lead agency (SCAQMD permit threshold). The SCAQMD permit threshold consists of five tiers. However, the SCAQMD is not the lead agency for this project. Therefore, the five permit threshold tiers do not apply to the proposed project.

The SCAQMD is in the process of preparing recommended significance thresholds for greenhouse gases for local lead agency consideration (“SCAQMD draft local agency threshold”); however, the SCAQMD Board has not approved the thresholds as of the date of the Notice of Preparation. The current draft thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a greenhouse gas reduction plan. If a project is consistent with a qualifying local greenhouse gas reduction plan, it does not have significant greenhouse gas emissions.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project’s construction emissions are averaged over 30 years and are added to a project’s operational emissions. If a project’s emissions are under one of the following screening thresholds, then the project is less than significant:
 - All land use types: 3,000 MTCO₂e per year
 - Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; or mixed use: 3,000 MTCO₂e per year.
 - Based on land type: Industrial (where SCAQMD is the lead agency), 10,000 MTCO₂e per year.
- Tier 4 has the following options:
 - Option 1: Reduce emissions from business as usual (BAU) by a certain percentage; this percentage is currently undefined.
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures.
 - Option 3, 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e/SP/year for projects and 6.6 MTCO₂e/SP/year for plans;
 - Option 3, 2035 target: 3.0 MTCO₂e/SP/year for projects and 4.1 MTCO₂e/SP/year for plans.
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD’s draft threshold uses the Executive Order S-3-05 goal as the basis for the Tier 3 screening level. Achieving the Executive Order’s objective would contribute to worldwide efforts to cap carbon dioxide concentrations at 450 ppm, thus stabilizing global climate. Specifically, the Tier 3 screening level for stationary sources is based on an emission capture rate of 90 percent for all new or modified projects. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, including a negative declaration, a mitigated negative declaration, or an environmental impact report, which includes analyzing feasible alternatives and imposing feasible mitigation measures. A GHG significance threshold based on a 90 percent emission capture rate may be more appropriate to address the long-term adverse impacts associated with global climate change because most projects will be required to implement GHG reduction measures. Further, a 90 percent emission capture rate sets the emission threshold low enough

to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions. This assertion is because staff estimates that these GHG emissions would account for slightly less than one percent of future 2050 statewide GHG emissions target (85 MMTCO₂eq/year). In addition, these small projects may be subject to future applicable GHG control regulations that would further reduce their overall future contribution to the statewide GHG inventory. Finally, these small sources are already subject to BACT for criteria pollutants and are more likely to be single-permit facilities, so they are more likely to have few opportunities readily available to reduce GHG emissions from other parts of their facility.

E. Local – City of Los Angeles

i) City of Los Angeles LA Green Plan

The City of Los Angeles adopted the Green LA: An Action Plan to Lead the Nation in Fighting Global Warming (LA Green Action Plan) in May 2007. This document outlines the goals and actions the City has established to reduce the generation and emission of GHGs from both public and private activities. According to the LA Green Action Plan, the City of Los Angeles is committed to the goal of reducing emissions of CO₂ to 35 percent below 1990 levels by 2030. To achieve this, the City will increase the generation of renewable energy, improve energy conservation and efficiency, and change transportation and land use patterns to reduce dependence on automobiles. Some of the City's goals include:

- Recycling 62% of solid waste, a figure that exceeds California's strict recycling goals and represents the highest diversion rate among the nation's top five big cities;
- Investing in renewable energy to generate 20% of total power from clean sources by 2010 and reduce municipal CO₂ output by 17.5% below 1990 levels;
- Holding water use steady through aggressive conservation despite overall population growth of 15% since 1990;
- Reducing the number of smoggy days from more than 200 in 1978, to 30 in 2005;
- Mandating green building standards for all new public buildings and providing incentives for private green development; and
- Investing in a fleet of alternative fuel vehicles that includes nearly half of the city's refuse collection trucks and street sweepers, all 188 DASH buses, and nearly 1,000 hybrid passenger cars that saved over 10 million gallons of fuel in 2006.

As part of the LA Green Action Plan, the Los Angeles Green Building Ordinance was passed in April 2008 that promotes green building practices by creating a series of requirements and incentives for developers to meet the U.S. Building Council's Energy and Design (LEED) standards. The requirements apply to all new projects greater than 50 units or 50,000 square feet.

ii) City of Los Angeles Sustainable City pLAN and Green New Deal

The Sustainable City pLAN is a comprehensive and actionable directive from the Mayor to improve the environmental, economic, and equitable conditions in the city of Los Angeles.²⁰ The pLAN is a tool that the Mayor will use to manage the City and establish visions, goals, and metrics for City departments. The Sustainable City pLAN sets targets to reduce GHG emissions below the 1990 baseline by 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050, and establishes the following visions for City departments for the following categories:

- **Environment:** Local Water (lead the nation in water conservation and source the majority of water locally); Local Solar (increase Los Angeles's clean and resilient energy supplies by capturing energy from abundant sunshine); Energy Efficient Buildings (save money and energy by increasing the efficiency of buildings); Carbon and Climate Leadership (as a proactive leader on climate issues, strengthen Los Angeles's economy by dramatically reducing GHG emissions and rallying other cities to follow Los Angeles's lead); and Waste and Landfills (become the first big city in the United States to achieve zero-waste, and recycle and reuse most of its waste locally).
- **Economy:** Housing and Development (address Los Angeles's housing shortage, ensure that most new units are accessible to high-quality transit, and close the gap between income and rents); Mobility and Transit (invest in rail, bus lines, pedestrian/bike safety, and complete neighborhoods that provide more mobility options and reduce vehicle miles traveled); Prosperity and Green Jobs (strengthen and grow the economy including through increased jobs and investments in clean technology sectors); and Preparedness and Resiliency (prepare for natural disasters and decrease vulnerability to climate change).
- **Equity:** Air Quality (healthy air to breathe); Environmental Justice (ensure the benefits of the pLAN extend to all Angelenos); Urban Ecosystem (have access to parks, open space, including a revitalized Los Angeles River Watershed); and Livable Neighborhoods (live in safe, vibrant, well-connected, and healthy neighborhoods).

²⁰ City of Los Angeles, Mayor's Office of Sustainability, Sustainable City pLAN, 2015, <http://plan.lamayor.org/wpcontent/uploads/2017/03/the-plan.pdf>.

In 2019, the Mayor launched an update to the Sustainable City pLAn the Los Angeles Green New Deal Sustainable City pLAn 2019. The 2019 Green New Deal is to tackle the climate emergency with accelerated targets, strengthen the economy, and set L.A. on course to be carbon neutral by 2050. By 2050, the milestones of the Green New Deal are expected to save more than 1,600 lives, 660 trips to the hospital, and \$16 billion in avoided healthcare expenses each year.

The leads accelerated goals and targets in the Green New Deal include:

- Building a zero-carbon electricity grid — reaching an accelerated goal of 80% renewable energy supply by 2036 as we lead California toward 100% renewables by 2045.
- Creating a Jobs Cabinet to bring city, labor, educational, and business leaders together to support our effort to create 300,000 green jobs by 2035 and 400,000 by 2050.
- Mandating that all new municipally owned buildings and major renovations be all-electric, effective immediately, and that every building in Los Angeles — from skyscrapers to single family homes — become emissions free by 2050.
- Achieving a zero-waste future by phasing out styrofoam by 2021, ending the use of plastic straws and single-use takeout containers by 2028, and no longer sending any trash to landfills by 2050.
- Recycling 100% of our wastewater by 2035; sourcing 70% of our water locally — a significant increase from our existing pathway; and nearly tripling the maximum amount of stormwater captured.
- Planting and maintaining at least 90,000 trees — which will provide 61 million square feet of shade — citywide by 2021 and increasing tree canopy in low-income, severely heat impacted areas by at least 50% by 2028.

iii) City of Los Angeles Green Building Code

In 2011, 2014, 2017, 2020 and 2022 Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the L.A. Green Building Code, was amended to incorporate various provisions of the CALGreen Code. The City's Green Building Code includes mandatory requirements and elective measures for three categories of buildings: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alterations to residential and non-residential buildings.

iv) Transportation Impact Study Guidelines

The City of Los Angeles Department of Transportation (LADOT) has developed the Transportation Impact Study Guidelines (TISG) (December 2016) to provide the public, private consultants, and City staff with standards, guidelines, objectives, and criteria to be used in the preparation of a traffic impact study. The TISG emphasize sustainability, smart growth, transportation demand management strategies, multi-modal strategies, and reduction of GHG emissions in addition to traditional traffic flow considerations when evaluating and minimizing impacts to the City's transportation system because of land use policy decisions. The TISG establish the reduction of vehicle trips and vehicle miles traveled (VMT) as a policy goal and thus is an implementing mechanism of the City's strategy to reduce land use transportation related GHG emissions consistent with HSC Division 25.5 and SB 375.

On July 30, 2019, the City of Los Angeles adopted VMT as a criterion in determining transportation impacts under the State's California Environmental Quality Act (CEQA). This adoption was required by Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the CEQA Guidelines. While the State has replaced delay-based LOS with VMT impact criteria for purposes of CEQA, LADOT remains committed to evaluating the performance of the streets through the development review process. In their review, LADOT rely on comprehensive performance metrics that align with the City's Mobility Plan 2035 to ensure that important safety and accessibility needs are met including critical vehicle queuing, in addition to the environmental goals captured in the new emphasis on VMT. LADOT has reconstituted the new guidance in the newly released Transportation Assessment Guidelines (TAG), which aims to provide clarity on methodologies, and distinction between impact categories that are required by CEQA from analyses to address access, circulation, and safety concerns.

3. SIGNIFICANCE THRESHOLDS

A. Appendix G of State CEQA Guidelines

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

- The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

- The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions²¹.

B. Thresholds of Significance for this Project

CEQA Guidelines Section 15064.4 recommends that lead agencies quantify GHG emissions of projects and consider several other factors that may be used in the determination of significance of GHG emissions from a project: the extent to which the project may increase or reduce GHG emissions; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs.

Section 15064.4 does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130(f)).²² It is noted that the CEQA Guidelines were amended in response to SB 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact less than significant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project.²³ To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.²⁴ Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions."²⁵ Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than

²¹ *The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.*

²² *See, generally, CEQA Guidelines Section 15130(f); see also Letter from Cynthia Bryant, Director of the Office of Planning and Research to Mike Chrisman, Secretary for Natural Resources, dated April 13, 2009.*

²³ *14 CCR §15064(h)(3).*

²⁴ *14 CCR §15064(h)(3).*

²⁵ *14 CCR §15064(h)(3).*

significant for GHG emissions if a project complies with adopted programs, plans, policies, and/or other regulatory schemes to reduce GHG emissions.²⁶

In the absence of any applicable adopted numeric threshold, the significance of the project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b) by considering whether the project is consistent with applicable regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. For this project, as a land use development project, the most directly applicable adopted regulatory plan to reduce GHG emissions is the 2020-2045 RTP/SCS,²⁷ which is designed to achieve regional GHG reductions from the land use and transportation sectors as required by SB 375 and the State's long-term climate goals. This analysis also considers consistency with regulations or requirements adopted by the CARB *Climate Change Scoping Plan* and subsequent updates, and the LA Sustainable City pLAN/ Green New Deal.

SCAQMD Thresholds

As discussed above, SCAQMD only has an interim GHG significance threshold of 10,000 MTCO_{2e} per year for stationary source/industrial projects where SCAQMD is the lead agency. This SCAQMD interim GHG significance threshold is not applicable to the project as the project is a mixed use residential/commercial project and the City of Los Angeles is the Lead Agency.

City of Los Angeles Thresholds

For the reasons set forth above, to answer both of the above Appendix G thresholds, the City will consider whether the project is consistent with AB 32 and SB 375 (through demonstration of conformance with the 2020-2045 RTP/SCS), and the LA Sustainable City pLAN/ Green New Deal. As discussed above, OPR has noted that lead agencies "should make a good-faith effort to calculate or estimate GHG emissions from a project."²⁸ GHG emissions are quantified below, consistent with OPR guidelines.

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for reducing GHG emissions. Nor have SCAQMD, OPR,

²⁶ See, for example, San Joaquin Valley Air Pollution Control District, *CEQA Determinations of Significance for Projects Subject to ARB's GHG Cap-and-Trade Regulation, APR—2030 (June 25, 2014)*, in which the SJVAPCD "determined that GHG emissions increases that are covered under ARB's Cap-and-Trade regulation cannot constitute significant increases under CEQA..." Further, the South Coast Air Quality Management District (SCAQMD) has taken this position in CEQA documents it has produced as a lead agency. SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate SCAQMD has applied its 10,000 MTCO_{2e} /yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, *Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project*, SCH No. 2012041014 (October 2014); SCAQMD, *Final Negative Declaration for Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project*, SCH No. 2013091029 (December 2014); *Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA*, SCH No. 2014101040 (December 2014); and *Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project*, SCH No. 2014121014 (April 2014).

²⁷ As stated above, the goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the project would be consistent with the 2016–2040 RTP/SCS, the project would also be consistent with the 2020–2045 RTP/SCS.

²⁸ OPR Technical Advisory, page 5.

CARB, CAPCOA, or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

4. METHODOLOGY

CalEEMod Version 2022.1.1.6 was used to calculate the GHG emissions from the proposed project. This analysis quantifies the project's total annual GHG emissions, considering compliance with regulation and GHG emission reduction features that would be incorporated into the project's design.

The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The following provides the methodology used to calculate the project related GHG emissions and the project impacts.

The CalEEMod Output for year 2025 is available in Appendix B. Each source of GHG emissions is described in greater detail below.

A. Area Sources

Area sources include emissions from consumer products, landscape equipment and architectural coatings. No changes were made to the default area source emissions.

B. Energy Usage

Energy usage includes emissions from the generation of electricity and natural gas used on-site. No other changes were made to the default energy usage parameters.

C. Mobile Sources

Mobile sources include emissions from the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed by inputting the project-generated VMT data from the City of Los Angeles Transportation Impact Assessment (TIA) for the Sherman Way Mixed-Use Project (January 5, 2023) for the proposed project into the CalEEMod Model. The VMT analysis in the TIA showed that the project would generate 767 daily vehicle trips and 6,017 daily VMT. See Section II for more details.

D. Waste

Waste includes the GHG emissions generated from the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. According to the City of Los Angeles Zero Waste Progress Report (March 2013), the City achieved a landfill diversion rate of approximately 76 percent by year 2012.²⁹ AB 341 required that 75 percent of waste be diverted from landfills by 2020; however, to be conservative, no reductions were taken. No changes were made to the default waste parameters.

E. Water

Water includes the water used for the interior of the building as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. CALGreen requires a 20 percent reduction in indoor water use and water efficient irrigation systems; however, to be conservative, no changes were made to the default water usage parameters.

F. Construction

The construction-related GHG emissions were also included in the analysis and were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The construction related GHG emissions were calculated by CalEEMod using the methodology detailed above in *Section II, Air Quality Analysis*, of this technical report.

5. PROJECT GREENHOUSE GAS EMISSIONS

The GHG emissions have been calculated based on the parameters described above. A summary of the results is shown in **Table 10**, below. **Table 10** shows that the project’s total emissions would be 1,200.77 MTCO2e per year.

Table 10
Project-Related Greenhouse Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO2	NonBio-CO ₂	CO ₂	CH ₄	N ₂ O	CO ₂ e
Maximum Annual Operations	9.27	1,120	1,130	1.00	0.04	1,168
Construction ¹	0.00	32.27	32.27	0.0013	0.0013	32.77
Total Emissions						1,200.77
<i>Notes:</i>						
<i>(1) Construction GHG emissions CO2e based on a 30-year amortization rate.</i>						
<i>Source: CalEEMod Version 2022.1.1.6 for Opening Year 2025.</i>						

²⁹ City of Los Angeles, Department of Public Works, LA Sanitation, Zero Waste Progress Report, March 2013, <https://bioenergyproducers.files.wordpress.com/2016/11/la-zero-waste-report.pdf>. Accessed December 2018.

6. CONSISTENCY WITH APPLICABLE GREENHOUSE GAS REDUCTION PLANS AND POLICIES

The project's GHG impacts are evaluated by assessing the project's consistency with applicable statewide, regional, and local GHG reduction plans and strategies. As discussed previously, the City has established goals and actions to reduce the generation and emission of GHGs from both public and private activities in the LA Sustainable City pLAN/ Green New Deal.

The OPR encourages lead agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Although the City does not have a programmatic mitigation plan to tier from, such as a Greenhouse Gas Emissions Reduction Plan, the City has adopted a number of plans to help reduce GHG emissions, including the LA Sustainable City pLAN/ Green New Deal, and Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, the California CAT Report provides recommendations for specific emission reduction strategies for reducing GHG emissions and reaching the targets established in AB 32 and Executive Order S-3-05. On a statewide level, the 2008 Climate Change Scoping Plan provides measures to achieve AB 32 targets. On a regional level, the SCAG 2020 RTP/SCS contains measures to achieve VMT reductions required under SB 375. Thus, if the project complies with these plans, policies, regulations, and requirements, the project would result in a less than significant impact because it would be consistent with the overarching state, regional, and local plans for GHG reduction.

A consistency analysis is provided below and describes the project's compliance with or exceedance of performance-based standards included in the regulations outlined in the applicable portions of the 2022 Climate Change Scoping Plan and subsequent updates, LA Sustainable City pLAN/ Green New Deal and the 2020-2045 RTP/SCS.

A. Consistency with CARB Scoping Plan

Emission reductions in California alone would not be able to stabilize the concentration of greenhouse gases in the earth's atmosphere. However, California's actions set an example and drive progress towards a reduction in greenhouse gases elsewhere. If other states and countries were to follow California's emission reduction targets, this could avoid medium or higher ranges of global temperature increases. Thus, severe consequences of climate change could also be avoided.

The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 greenhouse gas emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new

jobs, and enhance public health” (California Air Resources Board 2008). The measures in the Scoping Plan have been in place since 2012.

This Scoping Plan calls for an “ambitious but achievable” reduction in California’s greenhouse gas emissions, cutting approximately 30 percent from business-as-usual emission levels projected for 2020, or about 10 percent from today’s levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman and child in California down to about 10 tons per person by 2020.

In May 2014, the CARB released its *First Update to the Climate Change Scoping Plan* (CARB 2014). This *Update* identifies the next steps for California’s leadership on climate change. While California continues on its path to meet the near-term 2020 greenhouse gas limit, it must also set a clear path toward long-term, deep GHG emission reductions. This report highlights California’s success to date in reducing its GHG emissions and lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050.

In November 2017, the CARB released the 2017 Scoping Plan. This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State’s climate goals, and includes a description of a suite of specific actions to meet the State’s 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State’s mid and long-term climate goals.

Guided by legislative direction, the actions identified in the 2017 Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon economy. The 2017 Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets for SB 32 in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State’s largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and Trade Program, which constrains and reduces emissions at covered sources.

Independent studies confirm CARB’s determination that the state’s existing and proposed regulatory framework will put the state on a pathway to reduce its GHG emissions level to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050 if additional appropriate reduction measures are adopted.³⁰ Even though these studies did not provide an exact regulatory and technological roadmap

³⁰ *Energy and Environmental Economics (E3)*. “Summary of the California State Agencies’ PATHWAYS Project: Long-term Greenhouse Gas Reduction Scenarios” (April 2015); Greenblatt, Jeffrey, *Energy Policy*, “Modeling California Impacts on Greenhouse Gas Emissions” (Vol.

to achieve the 2030 and 2050 goals, they demonstrated that various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the studies would allow the state to meet the 2050 target.

CARB's Scoping Plan identifies strategies to reduce California's GHG emissions in support of Assembly Bill ("AB") 32 which requires the State to reduce its GHG emissions to 1990 levels by 2020. Many of the strategies identified in the Scoping Plan are not applicable at the project level, such as long-term technological improvements to reduce emissions from vehicles. Some measures are applicable and supported by the project, such as energy efficiency. Finally, while some measures are not directly applicable, the project would not conflict with their implementation.

Reduction measures are grouped into 18 action categories, as follows:

1. **California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions.** Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.
2. **California Light-Duty Vehicle Greenhouse Gas Standards.** Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.
3. **Energy Efficiency.** Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).
4. **Renewables Portfolio Standards.** Achieve 33 percent renewable energy mix statewide.
5. **Low Carbon Fuel Standard.** Develop and adopt the Low Carbon Fuel Standard.
6. **Regional Transportation-Related GHG Targets.** Develop regional GHG emissions reduction targets for passenger vehicles.

78, pp. 158–172). The California Air Resources Board, California Energy Commission, California Public Utilities Commission, and the California Independent System Operator engaged E3 to evaluate the feasibility and cost of a range of potential 2030 targets along the way to the state's goal of reducing GHG emissions to 80 percent below 1990 levels by 2050. With input from the agencies, E3 developed scenarios that explore the potential pace at which emission reductions can be achieved, as well as the mix of technologies and practices deployed. E3 conducted the analysis using its California PATHWAYS model. Enhanced specifically for this study, the model encompasses the entire California economy with detailed representations of the buildings, industry, transportation and electricity sectors. https://www.ethree.com/wp-content/uploads/2017/02/E3_Project_Overview_20150406.pdf.

7. **Vehicle Efficiency Measures.** Implement light-duty vehicle efficiency measures.
8. **Goods Movement.** Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.
9. **Million Solar Roofs Program.** Install 3,000 megawatts of solar-electric capacity under California's existing solar programs.
10. **Medium- and Heavy-Duty Vehicles.** Adopt medium- (MD) and heavy-duty (HD) vehicle efficiencies. Aerodynamic efficiency measures for HD trucks pulling trailers 53-feet or longer that include improvements in trailer aerodynamics and use of rolling resistance tires were adopted in 2008 and went into effect in 2010. Future, yet to be determined improvements, includes hybridization of MD and HD trucks.
11. **Industrial Emissions.** Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce GHG emissions and provide other pollution reduction co-benefits. Reduce GHG emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.
12. **High Speed Rail.** Support implementation of a high-speed rail system.
13. **Green Building Strategy.** Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.
14. **High Global Warming Potential Gases.** Adopt measures to reduce high warming global potential gases.
15. **Recycling and Waste.** Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.
16. **Sustainable Forests.** Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation. The 2020 target for carbon sequestration was 5 million MTCO₂e/yr.
17. **Water.** Continue efficiency programs and use cleaner energy sources to move and treat water.
18. **Agriculture.** In the near-term, encourage investment in manure digesters. The program was made mandatory in 2020.

Table 11, Scoping Plan Consistency Summary, summarizes the project's consistency with the State Scoping Plan. As summarized, the project will not conflict with any of the provisions of the Scoping Plan

and in fact supports seven of the action categories through energy efficiency, water conservation, recycling, and landscaping.

Table 11
Scoping Plan Consistency Summary

Action	Supporting Measures	Consistency
Cap-and-Trade Program	--	Not Applicable. These programs involve capping emissions from electricity generation, industrial facilities, and broad scoped fuels. Caps do not directly affect commercial/residential projects.
Light-Duty Vehicle Standards	T-1	Not Applicable. This is a statewide measure establishing vehicle emissions standards.
Energy Efficiency	E-1 E-2 CR-1 CR-2	No Conflict. The project will include a variety of building, water, and solid waste efficiencies consistent with 2022 or better CALGreen requirements.
Renewables Portfolio Standard	E-3	Not Applicable. Establishes the minimum statewide renewable energy mix.
Low Carbon Fuel Standard	T-2	Not Applicable. Establishes reduced carbon intensity of transportation fuels.
Regional Transportation-Related Greenhouse Gas Targets	T-3	Not Applicable. This is a statewide measure and is not within the purview of this project.
Vehicle Efficiency Measures	T-4	Not Applicable. Identifies measures such as minimum tire-fuel efficiency, lower friction oil, and reduction in air conditioning use.
Goods Movement	T-5 T-6	Not Applicable. Identifies measures to improve goods movement efficiencies such as advanced combustion strategies, friction reduction, waste heat recovery, and electrification of accessories. While these measures are yet to be implemented and will be voluntary, the proposed project would not interfere with their implementation.
Million Solar Roofs (MSR) Program	E-4	Not Applicable. The MSR program sets a goal for use of solar systems throughout the State as a whole. The building roof structure is designed to support solar panels in the future.
Medium- & Heavy-Duty Vehicles	T-7 T-8	Not Applicable. MD and HD trucks and trailers accessing the project will be subject to aerodynamic and hybridization requirements as established by ARB; no feature of the project would interfere with implementation of these requirements and programs.
Industrial Emissions	I-1 I-2 I-3 I-4 I-5	Not Applicable. These measures are applicable to large industrial facilities (> 500,000 MTCO ₂ e/yr) and other intensive uses such as refineries.
High Speed Rail	T-9	Not Applicable. Supports increased mobility choice.

**Table 11
Scoping Plan Consistency Summary**

Action	Supporting Measures	Consistency
Green Building Strategy	GB-1	No Conflict. The project will include a variety of building, water, and solid waste efficiencies consistent with CALGreen requirements.
High Global Warming Potential Gases	H-1 H-2 H-3 H-4 H-5 H-6 H-7	Not Applicable. The proposed project is not a substantial source of high GWP emissions and will comply with any future changes in air conditioning, fire protection suppressant, and other requirements.
Recycling and Waste	RW-1 RW-2 RW-3	No Conflict. The project will recycle a minimum of 50 percent diversion to recycling from construction activities and operations pursuant to AB 939, AB 341 and AB 75 requirements.
Sustainable Forests	F-1	No Conflict. The project will increase carbon sequestration by increasing on-site trees per the project landscaping plan.
Water	W-1 W-2 W-3 W-4 W-5 W-6	No Conflict. The project will include use of low-flow fixtures and water-efficient landscaping pursuant to CALGreen requirements.
Agriculture	A-1	Not Applicable. The project is not an agricultural use.
<p><i>Note: Supporting measures can be found at the following link: https://www.arb.ca.gov/cc/scopingplan/2013_update/appendix_b.pdf Table Source: EcoTierra Consulting, 2022.</i></p>		

As shown above, the project would be consistent with the applicable measures established in the Scoping Plan.

B. Consistency with SB 32

At the state level, Executive Orders S-3-05 and B-30-15 are orders from the State’s Executive Branch for the purpose of reducing GHG emissions. The goal of Executive Order S-3-05, to reduce GHG emissions to 1990 levels by 2020 was codified by the Legislature as the 2006 Global Warming Solutions Act (AB 32). The project, as analyzed above, is consistent with AB 32. Therefore, the project does not conflict with this component of Executive Order S-3-05. The Executive Orders also establish goals to reduce GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. However, studies have shown that, in order to meet the 2030 and 2050 targets, aggressive technologies in the transportation and energy sectors, including electrification and the decarbonization of fuel, will be required. In its Climate Change Scoping Plan, CARB acknowledged that the “measures needed to meet the 2050 target are too far in the future to define in detail.” In the First Scoping Plan Update, however, CARB

generally described the type of activities required to achieve the 2050 target: “energy demand reduction through efficiency and activity changes; largescale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and rapid market penetration of efficiency and clean energy technologies that requires significant efforts to deploy and scale markets for the cleanest technologies immediately.”

Unlike the 2020 and 2030 reduction targets of AB 32 and SB 32, respectively, the 2050 target of Executive Order S-3-05 has not been codified, so the 2050 reduction target has not been the subject of any analysis by CARB. For example, CARB has not prepared an update to the aforementioned Scoping Plan that provides guidance to local agencies as to how they may seek to contribute to the achievement of the 2050 reduction target.

In 2017, the California Supreme Court examined the need to use the Executive Order S-3-05 2050 reduction target in *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal.5th 497 (Cleveland National). The case arose from San Diego Association of Governments (SANDAG’s) adoption of its 2050 Regional Transportation Plan, which included its Sustainable Communities Strategy, as required by SB 375. On review, the Supreme Court held that SANDAG did not violate CEQA by not considering the Executive Order S-3-05 2050 reduction target. Accordingly, since the project is much smaller in size and scope in comparison to the Regional Transportation Plan examined in *Cleveland National*, assessing the project’s consistency with regard to the 2050 target of Executive Order S-3-05 is not necessary for determining compliance with CEQA.

The 2017 Scoping Plan builds on the 2008 Scoping Plan in order to achieve the 40 percent reduction from 1990 levels by 2030. Major elements of the 2017 Scoping Plan framework that will achieve the GHG reductions include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing Zero Emission Vehicle (ZEV) buses and trucks. When adopted, this measure would apply to all trucks accessing the project site; this may include existing trucks or new trucks purchased by the project proponent, which could be eligible for incentives that expedite the project’s implementation of ZEVs.
- Low Carbon Fuel Standard (LCFS), with an increased stringency (20 percent by 2030). When adopted, this measure would apply to all fuel purchased and used by the project in the state.
- Implementing SB 350, which expands Renewables Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030. When adopted, this measure would apply when electricity is provided to the project by a utility company.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks. When adopted, this measure would

apply to all trucks accessing the project site, this may include existing trucks or new trucks that are part of the statewide goods movement sector.

- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375. The project is not within the purview of SB 375 and would therefore not conflict with this measure.
- Post-2020 Cap-and-Trade Program that includes declining caps. When adopted, the project would be required to comply with the Cap-and-Trade Program if it generates emissions from sectors covered by Cap-and-Trade.
- 20 percent reduction in GHG emissions from refineries by 2030. When adopted, the project would be required to comply with this measure if it were to utilize any fuel from refineries.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink. This is a statewide measure that would not apply to the project.

As shown above, the project would not conflict with any of the 2017 Scoping Plan elements as any regulations adopted would apply directly or indirectly to the project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40 percent below 1990 levels by 2030.³¹

In November of 2022, the CARB released the 2022 Scoping Plan. The 2022 Scoping Plan lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon. The 2022 Scoping Plan included the following Key Actions and Recommendations:

- 100 percent of light-duty vehicle sales are ZEVs by 2035.
- VMT per capita reduced 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.
- All electric appliances in new construction beginning 2026 (residential) and 2029 (commercial).

³¹ California Legislative Information, Senate Bill No. 32, September 8, 2016. https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32.

- For existing residential buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2035 (appliances replaced at end of life). For existing commercial buildings, 80 percent of appliance sales are electric by 2030 and 100 percent of appliance sales are electric by 2045 (appliances replaced at end of life)

Through regulation, the project will not conflict with any of these Key Actions and Recommendations and is consistent with the applicable goals/policies of the 2022 CARB Scoping Plan.

C. LA Sustainable City pLAn

While not a plan adopted solely to reduce GHG emissions, within L.A.'s Green New Deal (Sustainable City pLAn 2019), climate mitigation is one of eight explicit benefits that help define its strategies and goals.

The 2019 L.A. New Green Deal is the first four-year update to the Sustainable City pLAn. It augments, expands, and elaborates in more detail the City's vision for a sustainable future and it addresses the climate emergency with accelerated targets and new aggressive goals. The project will contribute towards the attainment of the aspirations and goals previously identified in the Regulatory Framework discussion above by:

- Obtaining power from a utility provider that supplies 55% renewable energy by 2025.
- Including components that will reduce building energy use per square foot 22% by 2025.
- Reducing Vehicle Miles Traveled per capita by at least 13% by 2025.
- Ensuring 57% of new housing units are built within 1,500 feet of transit.

The project would use energy from the Los Angeles Department of Water and Power (LADWP), which currently provides 34 percent of electricity via renewable sources but has committed to providing an increasing percentage from renewable sources that exceed the RPS requirements by providing 50 percent by 2025, 55 percent by 2030, and 65 percent by 2036. The proposed project would be designed and constructed to meet LA Green Building Code standards, where applicable, by including several measures designed to reduce energy consumption. The project would include Energy Star® appliances where applicable and would be a modern development with energy efficient heaters and air conditioning systems. As such, the proposed project would be consistent with the goals and initiatives in the L.A. Green New Deal.

A discussion of the project's consistency with the Sustainable City pLAn targets is provided below in **Table 12, Project Consistency with the LA Sustainable City pLAn.**

Table 12
Project Consistency with the LA Sustainable City pLAn

Targets	Project Consistency
<p>Local Water. 20% reduction in water use per capita by 2017; 22.5% by 2025; and 25% by 2035.</p>	<p>No conflict. The project would be consistent with the LAMC to reduce water consumption by 20 percent. The project is required to follow CALGreen Standards which also mandates a 20 percent reduction in indoor water use.</p>
<p>Solar Power. Increase cumulative total megawatts of local solar photovoltaic power to between 900-1,500 megawatts by 2025 and 1,500 to 1,800 megawatts by 2035 as well as increasing the cumulative total megawatts of energy storage capacity to at least 1,654 to 1,750 megawatts by 2025.</p>	<p>No conflict. Compliance with the LA Green Building Code and CALGreen Code would ensure energy efficiency. The project would include, but not be limited to: air-tight and insulated envelope, Low-E windows, Energy Star appliances, and LED lighting.</p>
<p>Energy Efficient Buildings. Reduce energy use per square foot below 2013 baseline levels for all building types by at least 14% by 2025 and 30% by 2035 and use energy efficiency to deliver 15% of all of the City’s projected electricity needs by 2020.</p>	<p>No conflict. Compliance with the LA Green Building Code and CALGreen Code would ensure energy efficiency. Project would include, but not be limited to: The project would include, but not be limited to: air-tight and insulated envelope, Low-E windows, Energy Star appliances, and LED lighting.</p>
<p>Carbon and Climate Leadership. Reduce GHG emissions below 1990 baseline by at least 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050. Improve GHG efficiency of the City from 2009 levels by 55 percent by 2025 and 75 percent by 2035.</p>	<p>No conflict. The project would be designed to incorporate energy and water efficient design that meet or exceed the 2022 Title 24 Building Energy Efficiency Standards and CALGreen Code standards and incorporate energy and water efficiency measures. The project includes design features and compliance with Code measures that will assist in the reduction of project-related GHG emissions. Some of these design features include: The project would include, but not be limited to: enhanced energy-efficiency via high-performance glazing as well as enhanced façade, roof and deck insulation values. The air conditioning system will be comprised of highly efficient Variable Refrigerant Flow systems allowing for minimal electrical consumption, particularly when the building is lightly occupied. The building systems will include enhanced filtration of outside air being delivered to the occupied areas, and operable windows and oversize folding glass walls will enhance the natural ventilation whenever weather conditions permit. Water usage will be minimized via the use of ultra-low flow plumbing fixtures throughout the project. The irrigation system shall be designed to meet or exceed the state Model Water Efficient Landscape Ordinance (MWELo). The system should utilize a dedicated landscape water meter and automatic weather-based controllers with electronically operated control valves and seasonal irrigation schedules. All areas will include high efficiency irrigation emitters, including micro spray and drip irrigation. Bubblers may be used for trees or shrubs where drip irrigation is not feasible.</p>

Table 12
Project Consistency with the LA Sustainable City pLAn

Targets	Project Consistency
	There is a total of 57 short-term and long-term bicycle parking spaces that encourage alternative transportation use. The parking area includes 12 EV spaces and 2 clean air vehicle spaces. The roof space is solar-ready.
Waste and Landfills. Increase land fill diversion rates to at least 90 percent by 2025 and 95 percent by 2035, as well as increasing proportion of waste products and recyclable commodities productively reused and repurposed within the County of Los Angeles to at least 25 percent by 2025 and 50 percent by 2035.	No conflict. the project would be required to implement recycling programs that reduce waste to landfills by a minimum of 75 percent (per AB 341). The project would be served by a solid waste collection and recycling service that may include mixed-waste processing, and that yields waste diversion results comparable to source separation and consistent with citywide recycling targets. The project would also comply with the City of Los Angeles Space Allocation Ordinance (171,687) which requires that developments include a recycling area or a room of a specified size on the project site.
Housing and Development. Increase cumulative new housing unit construction to 100k by 2021, 150k by 2025, and 275k by 2035. Ensure proportion of new housing units built within 1,500 feet of transit is at least 57 percent by 2025 and 65 percent by 2035.	Not applicable. The project includes construction of a new, 106,560 SF, 4-story apartment complex with 111 dwelling units, plus 5,300 SF of commercial uses. The proposed project’s infill location would promote the concentration of development in an urban location with extensive infrastructure and access to public transit facilities, which would reduce vehicle miles traveled for the residential and commercial uses.
Mobility and Transit. Reduce daily VMT per capita by at least 5 percent by 2025 and 10 percent by 2035. Increase the percentage of all trips made by walking, biking, or transit to at least 35 percent by 2025 and 50 percent by 2035.	No conflict. The project is an urban center/infill development located in close proximity to transit. Additionally, the project is a 110,891 SF, 4-story apartment complex with 111 dwelling units, plus 5,300 SF of commercial uses. As part of the 182 parking spaces, 2 spaces would be designated for clean air vehicles, and 12 spaces would be designated for EV charging stations. The project provides 57 short term and long-term bicycle parking spaces, located and configured in compliance with applicable requirements of the LAMC.
Air Quality. Increase the percentage of electric and zero emissions vehicles in the city to 10 percent by 2025 and 25 percent by 2035 as well as increasing the percentage of port-related goods movement trips that use zero-emissions technology to at least 15 percent in 2025 and 25 percent in 2035.	No conflict. The project will comply with applicable City of Los Angeles Building Codes pertaining to building code requirements for charging station prewiring and installation of charging stations at workplaces.
<p><i>Note: This analysis focuses on the Sustainable City pLAn targets most applicable to the project.</i> <i>Source: City of Los Angeles Sustainable City pLAn, April 2015 and L.A.’s Green New Deal Sustainable City pLAn 2019.</i></p>	

The analysis above describes the consistency of the project with the City’s *Sustainable City pLAn*. As discussed in **Tables 11 and 12**, generally the project’s consistency with the plans and policies should be

demonstrated by a combination of regulatory compliance (green building code etc.) as well as project-specific characteristics (water conservation, energy conservation, and other features consistent with these plans). Therefore, the project would be consistent with the City's applicable plans, policies, or regulations for the reduction of GHG emissions.

As discussed above, the project would comply with the LA Green Building Code and CALGreen Code which would ensure energy efficiency and installation of water conserving fixtures. Moreover, the project site would utilize energy from LADWP, which is actively increasing its use of renewable sources. The project would locate residential uses and a commercial/retail land use close to transit opportunities. The project site is served by several bus lines on Sherman Way and Balboa Boulevard. The proximity of the project site to these transit stops would provide residents, patrons and employees easy access to the new development on the project site. In addition, the project would provide at least 57 bicycle parking spaces. Therefore, the project would be consistent with the goals of the LA Green Plan.

D. City of Los Angeles Sustainable City pLAN

The Sustainable City pLAN, a mayoral initiative, includes both short-term and long-term aspirations through the year 2035 in various topic areas, including: water, solar power, energy-efficient buildings, carbon and climate leadership, waste and landfills, housing and development, mobility and transit, and air quality, among others. While not a plan adopted solely to reduce GHG emissions, within L.A.'s Green New Deal (Sustainable City pLAN 2019), climate mitigation is one of eight explicit benefits that help define its strategies and goals.

The Sustainable City pLAN provides information as to what the City will do with buildings and infrastructure in their control. It also provides specific targets related to housing and development, as well as mobility and transit, including the reduction of VMT per capita by 5 percent by 2025, and increasing trips made by walking, biking, or transit by at least 35 percent by 2025. The Sustainable City pLAN was updated in April 2019 and renamed as L.A.'s Green New Deal. This latest document establishes targets such as 100 percent renewable energy by 2045, diversion of 100 percent of waste by 2050, and recycling 100 percent of wastewater by 2035. Although the Sustainable city pLAN/Green New Deal is not an adopted plan or directly applicable to private development projects, the project would generally comply with these aspirations as the project is an infill development that would densify an existing land use within a HQTAs.

Through the Green New Deal, the City would reduce an additional 30 percent in GHG emissions above and beyond the 2015 pLAN and ensures that the City stays within its carbon budget between 2020 and 2050. The project would generally comply with these aspirations as the project is an infill development, which is located near regional and local transit services. The project would be well-served by transit and would generally further goals to reduce GHG emissions by promoting infill development, density, more efficient transportation, etc. Furthermore, the project would comply with the City's Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance

No. 182,986) in furtherance of the aspirations included in the Sustainable City pLAN with regard to waste and landfills. The project would also provide secure short- and long-term bicycle storage areas for project residents, employees and patrons. Therefore, the project would be consistent with the Sustainable City pLAN and the Green New Deal.

E. LA Green Building Code

The Los Angeles Green Building Ordinance requires that all projects filed on or after January 1, 2020 comply with the current Los Angeles Green Building Code as amended to comply with the 2019 CALGreen Code. Mandatory measures under the Green Building Ordinance that would help reduce GHG emissions include: ten percent of the required and proposed parking spaces will have chargers for electric vehicles and 30 percent of the required and provided parking spaces will be pre-plumbed for future electric vehicle charging; enhanced energy-efficiency via high-performance glazing as well as enhanced façade, roof and deck insulation values; low-water use plumbing fixtures/appliances, rainwater harvesting cistern, water-efficient landscaping and drip irrigation. The project will comply with the City of Los Angeles' Green Building Ordinance standards and reduce emissions beyond a "Business-as-Usual" scenario.

F. 2020-2045 RTP/SCS

To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2016–2040 Regional Transportation Plan / Sustainable Communities Strategy (2016-2040 RTP/SCS) on April 7, 2016.^{32,33}

On September 3, 2020, SCAG's Regional Council adopted an updated Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) known as the 2020– 2045 RTP/SCS or Connect SoCal. As with the 2016–2020 RTP/SCS, the purpose of the 2020–2045 RTP/SCS is to meet the mobility needs of the six-county SCAG region over the subject planning period through a roadmap identifying sensible ways to expand transportation options, improve air quality and bolster Southern California long-term economic viability.³⁴ Applicable Goals and Guiding Principles of the 2020-2045 RTP/STS include:

- Improve mobility, accessibility, reliability, and travel safety for people and goods.
- Enhance the preservation, security, and resilience of the regional transportation system.
- Increase person and goods movement and travel choices within the transportation system.
- Reduce greenhouse gas emissions and improve air quality

³² Southern California Association of Governments, *Final 2016-2040 RTP/SCS*.

³³ Southern California Association of Governments, *Executive Order G-16-066, SCAG 2016 SCS ARB Acceptance off GHG Quantification Determination, June 2016*.

³⁴ SCAG, *News Release: SCAG Regional Council Formally Adopts Connect SoCal, September 3, 2020*.

- Support health and equitable communities.
- Adapt to a changing climate and support an integrated regional development pattern and transportation network
- Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
- Encourage development of diverse housing types in areas that are supported by multiple transportation options.

The goals and policies of the 2020–2045 RTP/SCS are similar to, and consistent with, those of the 2016–2040 RTP/SCS. Hence, because the proposed project would be consistent with the 2016–2040 RTP/SCS as discussed below, the proposed project would also be consistent with the 2020–2045 RTP/SCS.³⁵

Consistent with SCAG’s 2020 RTP/SCS alignment of transportation, land use, and housing strategies, the project would accommodate increases in population, households, employment, and travel demand. The project site is located within an HQTAs. As discussed previously, the project site is an urban center location close to jobs, off-site housing, shopping and entertainment uses and in close proximity to public transit stops, which would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. Further, the vertical integration of land uses on the project site will produce substantial reductions in auto mode share to and from the project site that will help the region accommodate growth and promote public transit ridership that minimizes GHG emission increases and reduces per capita emissions consistent with the RTP/SCS. Additionally, the inclusion of electric vehicle charging infrastructure (per LA Green Building Code) will support the penetration of electric zero-emission vehicles into the vehicle fleet.

The project would be located in an area well-served by public transit. Specifically, Metro operates bus routes in close proximity to the site, along Sherman Way and Balboa Boulevard. The project would include bicycle facilities and create a pedestrian-friendly environment by providing landscaped walkways. The project site is located adjacent to a mature network of streets that include vehicular, pedestrian and bicycle facilities. Development of the project within this established community would promote a variety of travel choices and would create new employment and housing opportunities the area. The project would not conflict with RTP/SCS goals to maximize mobility and accessibility for all people and goods in the region, ensure travel safety and reliability, preserve and ensure a sustainable regional transportation

³⁵ For example, the project would be consistent with both the 2016–2040 RTP/SCS and the 2020–2045 RTP/SCS because it would increase urban density within a High-Quality Transit Area (HQTAs) located in close proximity to numerous bus routes, would include transit-oriented development, all of which would reduce the City’s per capita VMT and associated air emissions. Another example is that because the project would be consistent with the City’s existing General Plan land use designation and the re-zoning of the project site will increase density which reduces VMT, and it has been accounted for in the regional growth projections in both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS.

system, protect the environment, encourage energy efficiency and facilitate the use of alternative modes of transportation.

As demonstrated above, the project would be consistent with the applicable goals, including those pertaining to reductions in GHG emissions, in the 2020 RTP/SCS.

The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Furthermore, because the project is consistent and does not conflict with these plans, policies, and regulations, the project's incremental increase in GHG emissions as described above would not result in a significant impact on the environment. project-specific impacts with respect to GHG emissions would be less than significant, and no mitigation is required.

7. CUMULATIVE GREENHOUSE GAS IMPACTS

Although the project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. Therefore, in the case of global climate change, the proximity of the project to other GHG emission generating activities is not directly relevant to the determination of a cumulative impact because climate change is a global condition. According to CAPCOA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."³⁶ The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change.

The state has mandated a goal of reducing statewide emissions to 1990 levels by 2020, even though statewide population and commerce are predicted to continue to expand. In order to achieve this goal, CARB is in the process of establishing and implementing regulations to reduce statewide GHG emissions. Consistent with CEQA Guidelines Section 15064h(3),³⁷ the City, as lead agency, has determined that the project's contribution to cumulative GHG emissions and global climate change would be less than significant if the project is consistent with the applicable regulatory plans and policies to reduce GHG

³⁶ California Air Pollution Control Officers Association, *CEQA & Climate change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*, (2008).

³⁷ The State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction program renders a cumulative impact insignificant. Per State CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions."

emissions.

As discussed in the Consistency With Applicable Greenhouse Gas Reduction Plans and Policies section above, the project is consistent with the CARB Scoping Plan, SCAG's 2020 RTP/SCS, and the LA Sustainable City pLAn/ Green New Deal.

Thus, given the project's consistency with the CARB Scoping Plan, SCAG 2020 RTP/SCS, City of L.A. Green Plan, and Sustainable City pLAn, the project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Given this consistency, it is concluded that the project's incremental contribution to greenhouse gas emissions and their effects on climate change would not be cumulatively considerable.

IV. ENERGY ANALYSIS

1. EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the project area and region.

A. Overview

California's estimated annual energy use as of 2021 included:

- Approximately 277,764 gigawatt hours of electricity;²¹
- Approximately 2,092,612 million cubic feet of natural gas per year²²; and
- Approximately 23.2 billion gallons of transportation fuel (for the year 2015).²³

As of 2020, the year of most recent data currently available by the United States Energy Information Administration (EIA), energy use in California by demand sector was:

- Approximately 34.0 percent transportation;
- Approximately 24.6 percent industrial;
- Approximately 21.8 percent residential; and
- Approximately 19.6 percent commercial.²⁴

California's electricity in-state generation system generates approximately 190,913 gigawatt-hours each year. In 2020, California produced approximately 70 percent of the electricity it uses; the rest was imported from the Pacific Northwest (approximately 15 percent) and the U.S. Southwest (approximately 15 percent). Natural gas is the main source for electricity generation at approximately 48.34 percent of the total in-state electric generation system power as shown in **Table 13**.

²¹ California Energy Commission. *Energy Almanac. Total Electric Generation*. [Online] 2022. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation>.

²² Natural Gas Consumption by End Use. U.S. Energy Information Administration. [Online] December 6, 2022. https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm.

²³ California Energy Commission. *Revised Transportation Energy Demand Forecast 2018-2030*. [Online] April 19, 2018. <https://www.energy.ca.gov/assessments/>.

²⁴ U.S. Energy Information Administration. *California Energy Consumption by End-Use Sector. California State Profile and Energy Estimates*. [Online] December 6, 2022, <https://www.eia.gov/state/?sid=CA#tabs-2>.

Table 13
Total Electricity System Power (California 2021)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	303	0.2%	181	7,788	8,272	3.0%
Natural Gas	97,431	50.2%	45	7,880	105,356	37.9%
Oil	37	0.0%	-	-	37	0.0%
Other (Petroleum Coke/Waste Heat)	382	0.2%	68	15	465	0.2%
Nuclear	16,477	8.5%	524	8,756	25,758	9.3%
Large Hydro	12,036	6.2%	12,042	1,578	25,656	9.2%
Unspecified Sources of Power	-	0.0%	8,156	10,731	18,887	6.8%
Renewables	67,461	34.8%	11,555	14,317	93,333	33.6%
Biomass	5,381	2.8%	864	26	6,271	2.3%
Geothermal	11,116	5.7%	192	1,906	13,214	4.8%
Small Hydro	2,531	1.3%	304	1	2,835	1.0%
Solar	33,260	17.1%	220	5,979	39,458	14.2%
Wind	15,173	7.8%	9,976	6,405	31,555	11.4%
Total System Energy	194,127	100.0%	35,572	51,064	277,764	100.0%

Source: California Energy Commission. 2021 Total System electric Generation. <https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2021-total-system-electric-generation>.

A summary of and context for energy consumption and energy demands within the State is presented in “U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts” excerpted below:

- In 2021, California was the seventh-largest producer of crude oil among the 50 states, and, as of January 2021, it ranked third in crude oil refining capacity.
- California is the largest consumer of jet fuel and second-largest consumer of motor gasoline among the 50 states and, the state accounted for 15% of the nation’s jet fuel consumption and 10% of motor gasoline consumption in 2020.
- In 2019, California was the second-largest total energy consumer among the states, but its per capita energy consumption was less than in all other states except Rhode Island, due in part to its mild climate and its energy efficiency programs.
- In 2021, California was the nation’s top producer of electricity from solar, geothermal, and biomass energy. The state was fourth in the nation in conventional hydroelectric power generation, down from second in 2019, in part because of drought and increased water demand.

- In 2021, California was the fourth-largest electricity producer in the nation, but the state was also the nation's second-largest consumer of electricity, and in 2020, it received about 30% of its electricity supply from generating facilities outside of California, including imports from Mexico.²⁵.

As indicated above, California is one of the nation's leading energy-producing states, and California per capita energy use is among the nation's most efficient. Given the nature of the project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity and natural gas for building uses, and transportation fuel for vehicle trips associated with the project.

B. Electricity

Electricity would be provided to the project by the Los Angeles Department of Water and Power (LADWP). LADWP serves a population of 4 million residents with 1.54 million power customers in the City of Los Angeles and another 6,000 power customers in the Owens Valley, within a service area encompassing approximately 465 square miles.²⁶ LADWP derives electricity from varied energy resources including: renewable energy, natural gas, nuclear, large hydroelectric, and coal.

Table 14 identifies LADWP's specific proportional shares of electricity sources in 2021. As shown in **Table 14**, the 2021 LADWP Power Mix has renewable energy at 35.2 percent of the overall energy resources, of which biomass and biowaste is at 0.1 percent, geothermal is at 9.7 percent, eligible hydroelectric is at 0.5 percent, solar energy is at 14.3 percent, and wind power is at 10.6 percent; other energy sources include coal at 18.6 percent, large hydroelectric at 6.6 percent, natural gas at 25.9 percent, and nuclear at 13.7 percent.

²⁵ *State Profile and Energy Estimates. Independent Statistics and Analysis. [Online] [Cited: December 6, 2022.] <http://www.eia.gov/state/?sid=CA#tabs2>.*

²⁶ *City of Los Angeles, Los Angeles Department of Water and Power, Facts & Figure. https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=13pl302nr1_4&_afLoop=221757335931853.*

Table 14
LADWP 2021 Power Content Mix

Energy Resources		Power Mix
Eligible Renewable		35.2%
	Biomass & Biowaste	0.1%
	Geothermal	9.7%
	Eligible Hydroelectric	0.5%
	Solar	14.3%
	Wind	10.6%
Coal		18.6%
Large Hydroelectric		6.6%
Natural Gas		25.9%
Nuclear		13.7%
Other		0.0%
Unspecified Sources of power*		0.0%
Total		100%
<i>Notes:</i>		
<i>* Unspecified sources of power means electricity from transactions that are not traceable to specific generation sources.</i>		
<i>Source: City of Los Angeles, Los Angeles Department of Water and Power, Power Content Label. https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-powercontentlabel?_adf.ctrl-state=fliuimfhk_30&_afLoop=172005023098762.</i>		

C. Natural Gas

Natural gas would be provided to the project by Southern California Gas (SoCalGas). The following summary of natural gas resources and service providers, delivery systems, and associated regulation is excerpted from information provided by the California Public Utilities Commission (CPUC).

The CPUC regulates natural gas utility service for approximately 11 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller investor-owned natural gas utilities. The CPUC also regulates independent storage operators Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage.

The vast majority of California's natural gas customers are residential and small commercial customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.

The PUC regulates the California utilities' natural gas rates and natural gas services, including in-state transportation over the utilities' transmission and distribution pipeline systems, storage, procurement, metering, and billing.

Most of the natural gas used in California comes from out-of-state natural gas basins. In 2017, for example, California utility customers received 38% of their natural gas supply from basins located in the U.S. Southwest, 27% from Canada, 27% from the U.S. Rocky Mountain area, and 8% from production located in California.²⁷

D. Transportation Energy Resources

The project would attract additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. Gasoline (and other vehicle fuels) are commercially-provided commodities and would be available to the project patrons and employees via commercial outlets.

The most recent data available shows the transportation sector emits 40 percent of the total greenhouse gases in the state and about 84 percent of smog-forming oxides of nitrogen (NOx).^{28,29} About 28 percent of total United States energy consumption in 2019 was for transporting people and goods from one place to another. In 2019, petroleum comprised about 91 percent of all transportation energy use, excluding fuel consumed for aviation and most marine vessels.³⁰ In 2020, about 123.49 billion gallons (or about 2.94 billion barrels) of finished motor gasoline were consumed in the United States, an average of about 337 million gallons (or about 8.03 million barrels) per day.³¹

2. REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. On the state level, the PUC, and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

²⁷ California Public Utilities Commission. *Natural Gas and California*. http://www.cpuc.ca.gov/natural_gas/.

²⁸ CARB. *California Greenhouse Gas Emissions Inventory – 2020 Edition*. <https://www.arb.ca.gov/cc/inventory/data/data.htm>

²⁹ CARB. *2016 SIP Emission Projection Data*. https://www.arb.ca.gov/app/emsv/2017/emseic1_query.php?F_DIV=4&F_YR=2012&F_SEASON=A&SP=SIP105ADJ&F_AREA=CA.

³⁰ US Energy Information Administration. *Use of Energy in the United States Explained: Energy Use for Transportation*. https://www.eia.gov/energyexplained/?page=us_energy_transportation.

³¹ US Energy Information Administration. *Frequently Asked Questions. How much gasoline does the United States consume?* <https://www.eia.gov/tools/faqs/faq.php?id=23&t=10>.

A. Federal Regulations

i) Corporate Average Fuel Economy (CAFE) Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.³²

ii) Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

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

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

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

B. State Regulations

i) Integrated Energy Policy Report (IEPR)

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State’s electricity, natural gas, and

³² US Department of Transportation, National Highway Traffic Safety Administration, Laws and Regulations, Corporate Average Fuel Economy, website: <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>.

transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The recently-approved 2017 Integrated Energy Policy Report Updated (2017 IEPR) was published in April 2018, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2016 IEPR focuses on a variety of topics such as implementation of Senate Bill 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to Senate Bill 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency.³³

ii) State of California Energy Plan

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

iii) California Building Standards Code (Title 24)

The California Building Standards Code Title 24 was previously discussed in Section II Air Quality Analysis of this report.

1) California Building Energy Efficiency Standards (Title 24, Part 6)

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

³³ California Energy Commission. *Final 2017 Integrated Energy Policy Report*. April 16, 2018. <https://www.energy.ca.gov/data-reports/integrated-energy-policy-report/2017-integrated-energy-policy-report-update>.

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

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

All buildings for which an application for a building permit is submitted on or after January 1, 2020 must follow the 2019 standards. The 2019 residential standards are estimated to be approximately 7 percent more efficient than the 2016 standards. Furthermore, once rooftop solar electricity generation is factored in, 2019 residential standards are estimated to be approximately 53 percent more efficient than the 2016 standards. Under the 2019 standards, nonresidential buildings are estimated to be approximately 30 percent more efficient than the 2016 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas emissions.

The 2022 Building Energy Efficiency Standards became effective on January 1, 2023.³⁴ The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar PV on new homes, providing significant GHG savings. The 2022 update builds off this progress with expanded solar standards and the move to onsite energy storage that will help Californians save on utility bills while bolstering the grid. The 2022 Energy Code update focuses on four key areas in new construction of homes and businesses:

- Encouraging electric heat pump technology and use, which consumes less energy and produces fewer emissions than traditional HVACs and water heaters.

³⁴ California Energy Commission. 2022. *Building Energy Efficiency Standards*. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency>.

- Establishing electric-ready requirements when natural gas is installed, which positions owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar photovoltaic (PV) system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The 2022 Energy Code affects homes by establishing energy budgets based on efficient heat pumps for space or water heating to encourage builders to install heat pumps over gas-fueled HVAC units; requiring homes to be electric-ready, with dedicated 240-volt outlets and space (with plumbing for water heaters) so electric appliances can eventually replace installed gas appliances; increasing minimum kitchen ventilation requirements so that fans over cooktops have higher airflow or capture efficiency to better exhaust pollution from gas cooking and improve indoor air quality; and allowing exceptions to existing solar PV standards when roof area is not available (such as for smaller homes). In addition, the effect on businesses includes establishing combined solar PV and battery standards for select businesses with systems being sized to maximize onsite use of solar energy and avoid electricity demand during times when the grid must use gas-powered plants; establishing new efficiency standards for commercial greenhouses (primarily cannabis growing); and improving efficiency standards for building envelope, various internal systems, and grid integration equipment, such as demand-responsive controls to buoy grid stability.^{35,36}

2) California Building Energy Efficiency Standards (Title 24, Part 11)

The 2019 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, went into effect on January 1, 2020. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

As previously discussed in Section III of this report, the Department of Housing and Community Development (HCD) updated CALGreen through the 2019 Triennial Code Adoption Cycle. HCD modified the best management practices for stormwater pollution prevention adding Section 5.106.2 for projects that disturb one or more acres of land. This section requires projects that disturb one acre or more of land or less than one acre of land but are part of a larger common plan of development or sale must comply with the postconstruction requirement detailed in the applicable National Pollutant Discharge Elimination

³⁵ California Energy Commission. <https://www.lightnowblog.com/2021/08/california-energy-commission-adopts-2022-building-energy-efficiency-standards/>.

³⁶ State of California Energy Commission. 2022 Building Energy Efficiency Standards Summary. https://www.energy.ca.gov/sites/default/files/2021-08/CEC_2022_EnergyCodeUpdateSummary_ADA.pdf.

System (NPDES) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board. The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff pre-project hydrology) with installation of postconstruction stormwater management measures.

HCD added sections 5.106.4.1.3 and 5.106.4.1.5 in regards to bicycle parking. Section 5.106.4.1.3 requires new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility. In addition, Section 5.106.4.1.5 states that acceptable bicycle parking facility for Sections 5.106.4.1.2 through 5.106.4.1.4 shall be convenient from the street and shall meeting one of the following: (1) covered, lockable enclosures with permanently anchored racks for bicycles; (2) lockable bicycle rooms with permanently anchored racks; or (3) lockable, permanently anchored bicycle lockers.

HCD amended section 5.106.5.3.5 allowing future charging spaces to qualify as designated parking for clean air vehicles.

HCD updated section 5.303.3.3 in regards to showerhead flow rates. This update reduced the flow rate to 1.8 GPM.

HCD amended section 5.304.1 for outdoor potable water use in landscape areas and repealed sections 5.304.2 and 5.304.3. The update requires nonresidential developments to comply with a local water efficient landscape ordinance or the current California Department of Water Resource's' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent. Some updates were also made in regards to the outdoor potable water use in landscape areas for public schools and community colleges.

HCD updated Section 5.504.5.3 in regards to the use of MERV filters in mechanically ventilated buildings. This update changed the filter use from MERV 8 to MERV 13. MERV 13 filters are to be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

The 2022 California Green Building Standards Code became effective on January 1, 2023.³⁷ HCD amended Section 5.106.5.3 in regard to increasing the EV capable space percentages and adding a new requirement for installed Level 2 DCFC chargers. HCD under Section 5.106.5.4 added new regulation for electric vehicle charging readiness requirements for new construction of warehouse, grocery stores, and retail stores with planned off-street loading spaces.³⁸

³⁷ *California Building Standards Commission (CBSC). 2022. California Green Building Standards. <https://codes.iccsafe.org/content/CAGBC2022P1>.*

³⁸ *California, Building Standards Commission. <https://www.dgs.ca.gov/BSC/Resources/2022-Title-24-California-Code-Changes>.*

iv) Senate Bill 100

Senate Bill 100 (SB 100) requires 100 percent of total retail sales of electricity in California to come from eligible renewable energy resources and zero-carbon resources by December 31, 2045. SB 100 was adopted September 2018.

The interim thresholds from prior Senate Bills and Executive Orders would also remain in effect. These include Senate Bill 1078 (SB 1078), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. Senate Bill 107 (SB 107) which changed the target date to 2010. Executive Order S-14-08, which was signed on November 2008 and expanded the State's Renewable Energy Standard to 33 percent renewable energy by 2020. Executive Order S-21-09 directed the CARB to adopt regulations by July 31, 2010 to enforce S-14-08. Senate Bill X1-2 codified the 33 percent renewable energy requirement in 2020.

v) Senate Bill 350

As previously discussed in Section III of this report, Senate Bill 350 (SB 350) was signed into law October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard (RPS) eligible resources, including solar, wind, biomass, geothermal, and others. In addition, SB 350 requires the state to double statewide energy efficiency savings in electricity and natural gas end uses by 2030. To help ensure these goals are met and the greenhouse gas emission reductions are realized, large utilities will be required to develop and submit Integrated Resource Plans (IRPs). These IRPs will detail how each entity will meet their customers resource needs, reduce greenhouse gas emissions, and ramp up the deployment of clean energy resources.

vi) Assembly Bill 32

As discussed in Section III of this report, in 2006 the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and best management practices that are technologically feasible and cost effective. Please see Section 4 for further detail on AB 32.

vii) Assembly Bill 1493/Pavley Regulations

As discussed in Section III of this report, California Assembly Bill 1493 enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2005, the CARB submitted a “waiver” request to the EPA from a portion of the federal Clean Air Act in order to allow the State to set more stringent tailpipe emission standards for CO₂ and other GHG emissions from passenger vehicles and light duty trucks. On December 19, 2007 the EPA announced that it denied the “waiver” request. On January 21, 2009, CARB submitted a letter to the EPA administrator regarding the State’s request to reconsider the waiver denial. The EPA approved the waiver on June 30, 2009. EPA’s recent withdrawal of the waiver was upheld by the Ninth Circuit on February 10, 2021. Per CARB, while the federal action is in effect, CARB will administer the zero-emission vehicle program on a voluntary basis. After adopting these initial greenhouse gas standards for passenger vehicles, CARB adopted continuing standards for future model years.

viii) Executive Order S-1-07/Low Carbon Fuel Standard

As discussed in Section III of this report, Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State’s GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

On April 23, 2009 CARB approved the proposed regulation to implement the low carbon fuel standard. The low carbon fuel standard is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The low carbon fuel standard is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet each year beginning in 2011. Separate standards are established for gasoline and diesel fuels and the alternative fuels that can replace each. The standards are “back-loaded”, with more reductions required in the last five years, than during the first five years. This schedule allows for the development of advanced fuels that are lower in carbon than today’s fuels and the market penetration of plug-in hybrid electric vehicles, battery electric vehicles, fuel cell vehicles, and flexible fuel vehicles. It is anticipated that compliance with the low carbon fuel standard will be based on a combination of both lower carbon fuels and more efficient vehicles.

Reformulated gasoline mixed with corn-derived ethanol at ten percent by volume and low sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel as appropriate. Compressed natural gas and liquefied natural gas also may be low carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles are also considered as low carbon fuels for the low carbon fuel standard.

ix) Executive Order N-79-20

Executive Order N-79-20 Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment “requiring increasing volumes” of new zero emission vehicles (ZEVs) “towards the target of 100 percent.” The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

x) California Air Resources Board**1) CARB’s Advanced Clean Cars Program**

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions control program was approved by CARB in 2012. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.¹⁵ The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.³⁹

2) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

³⁹ California Air Resources Board, *California’s Advanced Clean Cars Program, January 18, 2017*. www.arb.ca.gov/msprog/acc/acc.htm.

3) Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen, and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NO_x) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission-controlled models would use petroleum-based fuel in a more efficient manner.

xj) Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32.

As previously stated in Section 3 of this report, Senate Bill 375 (SB 375) was adopted September 2008 and aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy (SCS) or alternate planning strategy (APS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP). CARB, in consultation with each MPO, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight years but can be updated every four years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's sustainable communities strategy or alternate planning strategy for consistency with its assigned targets.

The project is located within the Southern California Association of Governments (SCAG) jurisdiction, which has authority to develop the SCS or APS. For the SCAG region, the targets set by CARB are at eight percent below 2005 per capita GHG emissions levels by 2020 and 19 percent below 2005 per capita GHG emissions levels by 2035. These reduction targets became effective October 2018.

3. PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

A. Evaluation Criteria

In compliance with Appendix G of the State CEQA Guidelines, this report analyzes the project's anticipated energy use to determine if the project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In addition, Appendix F of the State CEQA Guidelines states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

B. Methodology

Information from the CalEEMod 2022.1.1.6 Output contained in **Appendix A** of this technical report, utilized for air quality and greenhouse gas analyses in Sections II and III of this report, were also used for this analysis. The CalEEMod outputs detail project related construction equipment, transportation energy demands, and facility energy demands.

C. Construction Energy Demands

Construction of the project is anticipated to start construction no sooner than September 2023 and take approximately 24 months to complete. Staging of construction vehicles and equipment will occur on-site. The approximately 24-month schedule is relatively short and the project site is relatively small at approximately 1.13 acres.

i) Construction Equipment Electricity Usage Estimates

As stated previously, electrical service will be provided by LADWP. The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the project. Based on the 2021 National Construction Estimator, Richard Pray (2021)⁴⁰, the typical power cost per 1,000 square feet of building construction per month is estimated to be \$2.37. The project plans to develop the site with a total of 116,191 thousand square-foot (TSF) of mixed-use/residential uses. Based on **Table 15, Project Construction Power Cost and Electricity Usage**, the total power cost of the on-site electricity usage during the construction of the project is estimated to be approximately \$6,608.94. At a cost of \$0.04 per kWh,⁴¹ the total construction energy usage would be approximately 169,678 kWh.

⁴⁰ Pray, Richard. 2021 National Construction Estimator. Carlsbad : Craftsman Book Company, 2021.

⁴¹ Assumes the project will be under the A-2 Large Commercial & Multi-Family Service rate under LADWP. https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-financesandreports/a-fr-electricrates/a-fr-er-stcomminrates?_adf.ctrl-state=4uqberzct_4&_afLoop=958662023680086.

Table 15
Project Construction Power Cost and Electricity Usage

Power Cost (per 1,000 square foot of building per month of construction)	Total Building Size (1,000 Square Foot)	Construction Duration (months)	Total Project Construction Power Cost
\$2.37	116.191	24	\$6,608.94

Although Title 24 requirements typically apply to energy usage for buildings, construction equipment would also comply with Title 24 requirements where applicable. Therefore, construction of the project would not result in the wasteful, inefficient, or unnecessary consumption of electricity. Accordingly, impacts would be less than significant and no mitigation measures would be required.

ii) Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Thus, there would be no demand generated by construction. Therefore, construction of the project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas. Accordingly, impacts would be less than significant and no mitigation measures would be required.

iii) Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of project construction. Fuel consumed by construction equipment was evaluated with the following assumptions:

- Construction schedule of 24 months
- All construction equipment was assumed to run on diesel fuel
- Typical daily use of 8 hours, with some equipment operating from ~2-6 hours
- Aggregate fuel consumption rate for all equipment was estimated at 18.5 horsepower hour per gallon (hp-hr/gal) (from CARB's 2017 Emissions Factors Tables and fuel consumption rate factors as shown in Table D-21 of the Moyer Guidelines: (https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf)).
- Diesel fuel would be the responsibility of the equipment operators/contractors and would be sources within the region.
- Project construction represents a "single-event" for diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources during long term operation.

Using the CalEEMod data input for the air quality and greenhouse gas analyses (Sections II and IV of this report), the project's construction phase would consume electricity and fossil fuels as a single energy

demand, that is, once construction is completed their use would cease. CARB's 2017 Emissions Factors Tables show that on average aggregate fuel consumption (gasoline and diesel fuel) would be approximately 18.5 hp-hr-gal. **Table 16, Construction Equipment Fuel Consumption Estimates**, shows the results of the analysis of construction equipment.

As presented in **Table 16**, project construction activities would consume an estimated 49,341 gallons of diesel fuel. As stated previously, project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

Table 16
Construction Equipment Fuel Consumption Estimates

Phase	Number of Days	Off Road Equipment Type	Quantity	Usage Hours	Horse Power	Load Factor	HP-hrs/day	Total Fuel Consumption (gal diesel fuel) ¹
Demolition	20	Concrete/Industrial Saws	1	8	33	0.73	193	208
	20	Rubber Tired Dozers	1	8	367	0.4	1174	1270
	20	Tractors/Loaders/Backhoes	3	8	84	0.37	746	806
Site Preparation/ Foundation	180	Excavators	1	8	36	0.38	109	1065
	180	Tractors/Loaders/Backhoes	1	8	84	0.37	249	2419
	180	Bore/Drill Rigs	1	6	83	0.5	249	2423
	180	Pumps	2	6	11	0.74	98	950
	180	Cement and Mortar Mixers	3	6	10	0.56	101	981
	180	Forklifts	1	8	82	0.2	131	1277
	180	Welders	1	6	46	0.45	124	1208
	180	Rubber Tired Dozers	1	7	367	0.4	1028	9998
Building Construction	321	Cranes	1	6	367	0.29	639	11080
	321	Forklifts	1	6	82	0.2	98	1707
	321	Generator Sets	1	8	14	0.74	83	1438
	321	Welders	3	8	46	0.45	497	8620
	321	Tractors/Loaders/Backhoes	1	6	84	0.37	186	3236
Architectural Coating	63	Aerial Lifts	1	6	46	0.31	86	291
	63	Air Compressors	1	6	37	0.48	107	363
CONSTRUCTION FUEL DEMAND (gallons of diesel fuel)								49,341

Notes:

(1) Using Carl Moyer Guidelines Table D-21 Fuel consumption rate factors (bhp-hr/gal) for engines less than 750 hp.

Source: California Air Resources Board. https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_d.pdf.

The project would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions,

compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. Therefore, construction of the project would not result in the wasteful, inefficient, or unnecessary consumption of petroleum-based fuels. Accordingly, impacts would be less than significant and no mitigation measures would be required.

iv) Construction Worker Fuel Estimates

It is assumed that construction worker trips are from light duty autos (LDA), light duty truck 1 (LDT1), and light duty truck 2 (LDT2) at a mix of 25 percent/50 percent/25 percent, respectively, along area roadways.⁴² With respect to estimated VMT, the construction worker trips would generate an estimated 787,419 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.6 model defaults.

Vehicle fuel efficiencies for construction workers were estimated in the air quality and greenhouse gas analyses (Sections II and IV of this report) using information generated using CARB’s EMFAC 2021 model for year 2023 emissions (see Appendix B). An aggregate fuel efficiency of 27.07 miles per gallon (mpg) was used to calculate vehicle miles traveled for construction worker trips. **Table 17, Construction Worker Fuel Consumption Estimates**, shows that an estimated 29,088 gallons of fuel would be consumed for construction worker trips.

**Table 17
Construction Worker Fuel Consumption Estimates^{1,2}**

Phase	Number of Days	Worker Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	12.5	18.5	4,625	27.07	171
Site Preparation/ Foundation	180	27.5	18.5	91,575	27.07	3,383
Building Construction	321	112	18.5	665,112	27.07	24,570
Architectural Coating	63	22.4	18.5	26,107	27.07	964
Total Construction Worker Fuel Consumption						29,088
<i>Notes:</i>						
<i>(1) Assumptions for the worker trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.6 defaults.</i>						
<i>(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).</i>						

v) Construction Vendor and Hauling Fuel Estimates

Table 18, Construction Vendor Fuel Consumption Estimates (MHD Trucks), and Table 19, Construction Hauling Fuel Consumption Estimates (HHD Trucks), show the estimated fuel consumption for vendor and hauling during building construction and architectural coating. With respect to estimated VMT, the vendor

⁴² CalEEMod User's Guide Appendix C (April 2022) states that construction work trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light duty truck type 2 (LDT2).

trips would generate an estimated 80,873 VMT and hauling trips would generate an estimated 60,100 VMT. Data regarding project related construction worker trips were based on CalEEMod 2022.1.1.6 model defaults.

**Table 18
Construction Vendor Fuel Consumption Estimates (MHD & HHDT Trucks)^{1,2}**

Phase	Number of Days	Vendor Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	0	10.2	0	6.98	0
Site Preparation/ Foundation	180	0	10.2	0	6.98	0
Building Construction	321	24.7	10.2	80,873	6.98	11,586
Architectural Coating	321	24.7	10.2	80,873	6.98	11,586
Total Construction Worker Fuel Consumption						11,586
<i>Notes:</i>						
<i>(1) Assumptions for the vendor trip length and vehicle miles traveled are consistent with CalEEMod 2022.1.1.6 defaults.</i>						
<i>(2) Per CalEEMod User's Guide Appendix C (April 2022), CalEEMod assumes vendor trips are made by a fleet consisting of 50 percent medium trucks (MHDT) and 50 percent heavy trucks (HHDT).</i>						

For the architectural coatings it is assumed that the contractors would be responsible for bringing coatings and equipment with them in their light duty vehicles. Therefore, vendors delivering construction material would use medium with an average fuel consumption of 6.98 mpg and those hauling debris from the site during grading would use heavy duty vehicles with an average fuel economy of 6.29 mpg. **Tables 18** and **19** show that an estimated 21,141 gallons of fuel would be consumed for vendor and hauling trips.

**Table 19
Construction Hauling Fuel Consumption Estimates (HHD Trucks)¹**

Phase	Number of Days	Hauling Trips/Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Demolition	20	6.25	20	2,500	6.29	397
Site Prep/Foundation	180	16	20	57,600	6.29	9,157
Building Construction	321	0	20	0	6.29	0
Architectural Coating	321	0	20	0	6.29	0
Total Construction Worker Fuel Consumption						9,555
<i>Notes:</i>						
<i>(1) Assumptions for the hauling trip length and vehicle miles traveled are consistent with CalEEMod 2020.4.0 defaults.</i>						

vi) Construction Energy Efficiency/Conservation Measures

Construction equipment used over the approximately 24-month construction phase would conform to CARB regulations and California emissions standards and is evidence of related fuel efficiencies. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

The project would utilize construction contractors which practice compliance with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with these measures would result in a more efficient use of construction-related energy and would minimize or eliminate wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption. Additionally, as required by California Code of Regulations Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby minimizing, or eliminating unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

D. Operational Energy Demands

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

i) Transportation Fuel Consumption

Using Operational related fuel consumption was calculated using the annual VMT from the CalEEMod output from the air quality and greenhouse gas analyses (Sections 2 and 3 of this report) and using information generated using CARB's 2021 EMFAC model (see Appendix B for details).⁴³

⁴³ Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2021 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; Year 2025). Gasoline-fueled vehicles account for approximately 88.77 percent of the total VMT at 25.01 miles per gallon and diesel-fueled vehicles account for approximately 5.08 percent of the total VMT at 8.65 miles per gallon.

Table 20, Estimated Vehicle Operations Fuel Consumption, shows that an estimated 77,952 gallons of gasoline and 12,898 gallons of diesel fuel would be consumed per year for the operation of the project.

Table 20
Estimated Vehicle Operations Fuel Consumption

Land Use	Annual VMT	Gasoline Usage ¹	Diesel Usage ¹
All Land Uses	2,196,205	77,952	12,898
<u>Notes:</u> (1) Based on the California Air Resources Board on-road vehicle emissions model, EMFAC2021 (Modeling input: Los Angeles County; Fleet Aggregate; Annual; Year 2025 for project). For Year 2025, gasoline-fueled vehicles account for approximately 88.77 percent of the total VMT at 25.01 miles per gallon and diesel-fueled vehicles account for approximately 5.08 percent of the total VMT at 8.65 miles per gallon.			

Trip generation and VMT generated by the project are consistent with other similar mixed uses of similar scale and configuration as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). That is, the project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. Furthermore, the state of California consumed approximately 4.2 billion gallons of diesel and 15.1 billion gallons of gasoline in 2015.^{44,45} Therefore, the increase in fuel consumption from the project is insignificant in comparison to the State's demand. Therefore, project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

ii) Facility Energy Demands (Electricity and Natural Gas)

Building operation and site maintenance (including landscape maintenance) would result in the consumption of electricity (provided by the Los Angeles Department of Water and Power) and natural gas (provided by Southern California Gas Company). The annual natural gas and electricity demands were provided per the CalEEMod output from the air quality and greenhouse gas analyses (Sections II and III of this report) and in **Table 21, Project Annual Operational Energy Demand Summary**.

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

⁴⁴ California Energy Commission, 2022 Title 24 California Code Changes. <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-gasoline-data-facts-and-statistics>.

⁴⁵ California Energy Commission, California Gasoline Data, Facts, and Statistics, <https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/diesel-fuel-data-facts-and-statistics>.

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

As shown in **Table 21**, the estimated electricity demand for the project is approximately 762,229 kWh per year. In 2021, the non-residential sector of the County of Los Angeles consumed approximately 44,438 million kWh of electricity.⁴⁶ In addition, the estimated natural gas consumption for the project is approximately 1,558,238 kBTU per year. In 2021, the non-residential sector of the County of Los Angeles consumed approximately 1,743 million therms of gas.⁴⁷ Therefore, the increase in both electricity and natural gas demand from the project is insignificant compared to the County’s 2021 non-residential sector demand.

**Table 21
Project Annual Operational Energy Demand Summary**

Electricity Demand	kWh/year ¹	Water Usage ²			Total Annual Electricity Use (kWhr)
		Indoor (gal/yr)	Outdoor (gal/yr)	Water-Related Electricity Use (kWhr/yr)	
Apartments Mid Rise	440,407	4,137,392	0	28,163.23	468,570.23
Regional Shopping Center	53,086	392,584	0	2,672.32	55,758.32
Enclosed Parking with Elevator	268,736	-	-	-	268,736.00
Total	762,229	4,529,976	0	30,836	793,065
Natural Gas Demand	kBTU/year¹				
Apartments Mid Rise	1,532,356				
Regional Shopping Center	25,882				
Total	1,558,238				
<i>Notes:</i>					
<i>(1) Taken from the CalEEMod 2022.1.1.6 output (Appendix A of this report).</i>					
<i>(2) Indoor Water results in 0.006807 kWhr of electricity usage per gallon from the supplying, treating, and distributing of water and the processing of resulting wastewater within South Coast. Outdoor water results in 0.005306 kWhr of electricity usage per gallon from supplying, treating, and distributing of water within South Coast. (Source: CalEEMod Version 2022.1 User's Guide Appendix G, Table G-32)</i>					

Furthermore, the project energy demands in total would be comparable to other mixed-use projects of similar scale and configuration. Therefore, the project facilities energy demands, and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

⁴⁶ California Energy Commission, Electricity Consumption by County. <https://ecdms.energy.ca.gov/elecbycounty.aspx>

⁴⁷ California Energy Commission, Gas Consumption by County. <http://ecdms.energy.ca.gov/gasbycounty.aspx>.

4. RENEWABLE ENERGY AND ENERGY EFFICIENCY PLAN CONSISTENCY

Regarding federal transportation regulations, the project site is located in an already developed area. Access to/from the project site is from existing roads. These roads are already in place so the project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be proposed pursuant to the ISTEA because SCAG is not planning for intermodal facilities in the project area.

Regarding the State's Energy Plan and compliance with Title 24 CCR energy efficiency standards, the applicant is required to comply with the California Green Building Standard Code requirements for energy efficient buildings and appliances as well as utility energy efficiency programs implemented by PWP and Southern California Gas Company.

Regarding Pavley (AB 1493) regulations, an individual project does not have the ability to comply or conflict with these regulations because they are intended for agencies and their adoption of procedures and protocols for reporting and certifying GHG emission reductions from mobile sources.

Regarding the State's Renewable Energy Portfolio Standards, the project would be required to meet or exceed the energy standards established in the California Green Building Standards Code, Title 24, Part 11 (CALGreen). CALGreen Standards require that new buildings reduce water consumption, employ building commissioning to increase building system efficiencies, divert construction waste from landfills, and install low pollutant-emitting finish materials.

As shown in *Section III, Global Climate Change Analysis*, above, the project is consistent with the applicable strategies of CARB Scoping Plan, SCAG 2020 RTP/SCS, City of L.A. Green Plan, and Sustainable City pLAN.

5. CONCLUSION

As supported by the preceding analyses, project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the project can be accommodated within the context of available resources and energy delivery systems. The project would therefore not cause or result in the need for additional energy producing or transmission facilities. The project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the City of Los Angeles and the State of California. Notwithstanding, the project proposes residential uses and will not have any long-term effects on an energy provider's future energy development or future energy conservation strategies.

V. EMISSIONS/EXPOSURE REDUCTION MEASURES

1. CONSTRUCTION MEASURES

Adherence to SCAQMD Rule 403 is required.

2. OPERATIONAL MEASURES

No mitigation measures required.

VI. LIST OF ACRONYMS AND ABBREVIATIONS

AQMP	Air Quality Management Plan
BACT	Best Available Control Technologies
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCAR	California Climate Action Registry
CEQA	California Environmental Quality Act
CFCs	Chlorofluorocarbons
CH ₄	Methane
CNG	Compressed natural gas
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	Greenhouse gas
GWP	Global warming potential
HIDPM	Hazard Index Diesel Particulate Matter
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
MTCO ₂ e	Metric tons of carbon dioxide equivalent
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
NO ₂	Nitrogen dioxide
N ₂ O	Nitrous oxide
O ₃	Ozone
OPR	Governor's Office of Planning and Research
PFCs	Perfluorocarbons
PM	Particulate matter
PM ₁₀	Particles that are less than 10 micrometers in diameter

PM2.5	Particles that are less than 2.5 micrometers in diameter
PMI	Point of maximum impact
PPM	Parts per million
PPB	Parts per billion
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SSAB	Salton Sea Air Basin
SF ₆	Sulfur hexafluoride
SIP	State Implementation Plan
SO _x	Sulfur Oxides
TAC	Toxic air contaminants
VOC	Volatile organic compounds

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1.1. Basic Project Information

Data Field	Value
Project Name	Sherman Way
Lead Agency	City of Los Angeles
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	18.6
Location	16955 Sherman Way, Van Nuys, CA 91406, USA
County	Los Angeles-South Coast
City	Los Angeles
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3870
EDFZ	17
Electric Utility	Los Angeles Department of Water & Power
Gas Utility	Southern California Gas

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	111	Dwelling Unit	0.00	110,891	2,202	—	329	—
Regional Shopping Center	5.30	1000sqft	0.00	5,300	0.00	—	—	—

Enclosed Parking with Elevator	182	Space	1.13	72,800	0.00	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	13.1	18.8	21.6	0.03	0.78	2.90	3.68	0.72	1.31	2.04	—	4,689	4,689	0.19	0.21	8.96	4,760
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.99	18.9	19.0	0.03	0.78	2.90	3.68	0.72	1.31	2.04	—	4,099	4,099	0.19	0.21	0.22	4,157
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.74	9.95	13.0	0.02	0.37	1.57	1.94	0.34	0.57	0.91	—	2,908	2,908	0.13	0.14	2.02	2,954
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	1.82	2.37	< 0.005	0.07	0.29	0.35	0.06	0.10	0.17	—	481	481	0.02	0.02	0.33	489

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.99	18.8	19.3	0.03	0.78	2.90	3.68	0.72	1.31	2.04	—	4,023	4,023	0.19	0.21	4.28	4,096
2024	1.86	17.4	19.0	0.03	0.70	2.89	3.59	0.64	1.31	1.96	—	4,181	4,181	0.18	0.21	8.41	4,247
2025	13.1	11.8	21.6	0.03	0.37	1.97	2.34	0.34	0.47	0.81	—	4,689	4,689	0.19	0.19	8.96	4,760
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.99	18.9	19.0	0.03	0.78	2.90	3.68	0.72	1.31	2.04	—	4,003	4,003	0.19	0.21	0.11	4,072
2024	1.86	17.5	18.1	0.03	0.70	2.89	3.59	0.64	1.31	1.96	—	4,099	4,099	0.18	0.21	0.22	4,157
2025	1.56	10.4	17.1	0.02	0.34	1.68	2.02	0.31	0.40	0.71	—	4,055	4,055	0.17	0.18	0.20	4,113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.46	4.41	4.46	0.01	0.18	0.56	0.75	0.17	0.25	0.42	—	900	900	0.04	0.04	0.38	915
2024	1.25	9.95	13.0	0.02	0.37	1.57	1.94	0.34	0.57	0.91	—	2,908	2,908	0.13	0.14	2.02	2,954
2025	2.74	5.26	8.85	0.01	0.17	0.84	1.01	0.15	0.20	0.35	—	2,040	2,040	0.09	0.09	1.70	2,070
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.08	0.80	0.81	< 0.005	0.03	0.10	0.14	0.03	0.04	0.08	—	149	149	0.01	0.01	0.06	151
2024	0.23	1.82	2.37	< 0.005	0.07	0.29	0.35	0.06	0.10	0.17	—	481	481	0.02	0.02	0.33	489
2025	0.50	0.96	1.62	< 0.005	0.03	0.15	0.18	0.03	0.04	0.06	—	338	338	0.01	0.01	0.28	343

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.43	2.35	30.9	0.05	0.07	1.68	1.75	0.07	0.30	0.37	56.0	7,622	7,678	6.07	0.24	18.6	7,920

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.27	2.44	19.7	0.05	0.06	1.68	1.74	0.06	0.30	0.36	56.0	7,388	7,444	6.08	0.25	1.28	7,672
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.02	2.52	26.8	0.05	0.07	1.68	1.74	0.07	0.30	0.37	56.0	6,768	6,824	6.03	0.24	8.50	7,056
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.10	0.46	4.89	0.01	0.01	0.31	0.32	0.01	0.05	0.07	9.27	1,120	1,130	1.00	0.04	1.41	1,168

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.58	1.87	21.0	0.05	0.03	1.68	1.71	0.03	0.30	0.33	—	4,844	4,844	0.25	0.20	17.8	4,927
Area	3.82	0.09	9.68	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	778	778	0.05	0.01	—	782
Energy	0.02	0.39	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,941	1,941	0.15	0.02	—	1,949
Water	—	—	—	—	—	—	—	—	—	—	8.68	58.3	67.0	0.89	0.02	—	95.8
Waste	—	—	—	—	—	—	—	—	—	—	47.3	0.00	47.3	4.73	0.00	—	165
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.82	0.82
Total	6.43	2.35	30.9	0.05	0.07	1.68	1.75	0.07	0.30	0.37	56.0	7,622	7,678	6.07	0.24	18.6	7,920
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.54	2.05	19.5	0.05	0.03	1.68	1.71	0.03	0.30	0.33	—	4,641	4,641	0.26	0.21	0.46	4,710
Area	2.70	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	747	747	0.05	0.01	—	751

Energy	0.02	0.39	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,941	1,941	0.15	0.02	—	1,949
Water	—	—	—	—	—	—	—	—	—	—	8.68	58.3	67.0	0.89	0.02	—	95.8
Waste	—	—	—	—	—	—	—	—	—	—	47.3	0.00	47.3	4.73	0.00	—	165
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.82	0.82
Total	5.27	2.44	19.7	0.05	0.06	1.68	1.74	0.06	0.30	0.36	56.0	7,388	7,444	6.08	0.25	1.28	7,672
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.52	2.07	20.0	0.05	0.03	1.68	1.71	0.03	0.30	0.33	—	4,696	4,696	0.26	0.21	7.68	4,772
Area	3.47	0.06	6.63	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	0.00	72.3	72.3	< 0.005	< 0.005	—	72.6
Energy	0.02	0.39	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,941	1,941	0.15	0.02	—	1,949
Water	—	—	—	—	—	—	—	—	—	—	8.68	58.3	67.0	0.89	0.02	—	95.8
Waste	—	—	—	—	—	—	—	—	—	—	47.3	0.00	47.3	4.73	0.00	—	165
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.82	0.82
Total	6.02	2.52	26.8	0.05	0.07	1.68	1.74	0.07	0.30	0.37	56.0	6,768	6,824	6.03	0.24	8.50	7,056
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.46	0.38	3.65	0.01	0.01	0.31	0.31	0.01	0.05	0.06	—	777	777	0.04	0.03	1.27	790
Area	0.63	0.01	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0
Energy	< 0.005	0.07	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	321	321	0.02	< 0.005	—	323
Water	—	—	—	—	—	—	—	—	—	—	1.44	9.66	11.1	0.15	< 0.005	—	15.9
Waste	—	—	—	—	—	—	—	—	—	—	7.83	0.00	7.83	0.78	0.00	—	27.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14	0.14
Total	1.10	0.46	4.89	0.01	0.01	0.31	0.32	0.01	0.05	0.07	9.27	1,120	1,130	1.00	0.04	1.41	1,168

3. Construction Emissions Details

3.1. Demolition (2023) - 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.74	17.0	16.9	0.02	0.76	—	0.76	0.70	—	0.70	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	0.34	0.34	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10	0.93	0.93	< 0.005	0.04	—	0.04	0.04	—	0.04	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	0.02	0.02	—	< 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	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	< 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	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.06	0.07	1.02	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	180	180	0.01	0.01	0.77	183
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.58	0.22	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	448	448	0.03	0.07	1.02	470
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.51	9.51	< 0.005	< 0.005	0.02	9.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	24.5	24.5	< 0.005	< 0.005	0.02	25.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.60
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	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	—	4.06	4.06	< 0.005	< 0.005	< 0.005	4.26

3.3. Site Preparation (2023) - 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.84	17.2	16.5	0.02	0.77	—	0.77	0.71	—	0.71	—	2,482	2,482	0.10	0.02	—	2,491
Dust From Material Movement	—	—	—	—	—	2.24	2.24	—	1.15	1.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	1.84	17.2	16.5	0.02	0.77	—	0.77	0.71	—	0.71	—	2,482	2,482	0.10	0.02	—	2,491
Dust From Material Movement	—	—	—	—	—	2.24	2.24	—	1.15	1.15	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.33	3.13	3.01	< 0.005	0.14	—	0.14	0.13	—	0.13	—	452	452	0.02	< 0.005	—	453
Dust From Material Movement	—	—	—	—	—	0.41	0.41	—	0.21	0.21	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.57	0.55	< 0.005	0.03	—	0.03	0.02	—	0.02	—	74.8	74.8	< 0.005	< 0.005	—	75.0
Dust From Material Movement	—	—	—	—	—	0.07	0.07	—	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.14	2.25	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	397	397	0.02	0.01	1.68	403

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.47	0.56	0.01	0.01	0.30	0.32	0.01	0.08	0.10	—	1,144	1,144	0.07	0.18	2.60	1,202
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.17	1.91	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	376	376	0.02	0.01	0.04	381
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.53	0.56	0.01	0.01	0.30	0.32	0.01	0.08	0.10	—	1,145	1,145	0.07	0.18	0.07	1,200
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.36	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	69.5	69.5	< 0.005	< 0.005	0.13	70.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.28	0.10	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	208	208	0.01	0.03	0.20	219
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.02	11.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	34.5	34.5	< 0.005	0.01	0.03	36.2

3.5. Site Preparation (2024) - 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.71	15.9	15.8	0.02	0.68	—	0.68	0.63	—	0.63	—	2,481	2,481	0.10	0.02	—	2,490

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.13	2.07	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	388	388	0.02	0.01	1.53	394
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.41	0.54	0.01	0.01	0.30	0.31	0.01	0.08	0.10	—	1,126	1,126	0.06	0.18	2.59	1,184
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.16	1.75	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	368	368	0.02	0.01	0.04	373
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.46	0.54	0.01	0.01	0.30	0.31	0.01	0.08	0.10	—	1,127	1,127	0.06	0.18	0.07	1,182
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.58	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.21	119
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.46	0.17	< 0.005	< 0.005	0.09	0.10	< 0.005	0.03	0.03	—	353	353	0.02	0.06	0.35	370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	19.4	19.4	< 0.005	< 0.005	0.03	19.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.08	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.4	58.4	< 0.005	0.01	0.06	61.3

3.7. Building Construction (2024) - 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.46	3.81	4.07	0.01	0.15	—	0.15	0.14	—	0.14	—	726	726	0.03	0.01	—	729
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.69	0.74	< 0.005	0.03	—	0.03	0.03	—	0.03	—	120	120	< 0.005	< 0.005	—	121
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.50	0.54	8.46	0.00	0.00	1.47	1.47	0.00	0.34	0.34	—	1,584	1,584	0.07	0.05	6.25	1,608
Vendor	0.02	0.94	0.46	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	796	796	0.03	0.11	2.16	831
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.64	7.15	0.00	0.00	1.47	1.47	0.00	0.34	0.34	—	1,501	1,501	0.07	0.06	0.16	1,520

Vendor	0.02	0.97	0.47	0.01	0.01	0.21	0.22	0.01	0.06	0.07	—	796	796	0.03	0.11	0.06	830
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.26	3.03	0.00	0.00	0.58	0.58	0.00	0.14	0.14	—	614	614	0.03	0.02	1.09	623
Vendor	0.01	0.40	0.19	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	321	321	0.01	0.04	0.37	335
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.55	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	102	102	< 0.005	< 0.005	0.18	103
Vendor	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.1	53.1	< 0.005	0.01	0.06	55.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	1.07	8.95	10.0	0.02	0.33	—	0.33	0.30	—	0.30	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.51	4.27	4.79	0.01	0.16	—	0.16	0.14	—	0.14	—	860	860	0.03	0.01	—	863
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.78	0.87	< 0.005	0.03	—	0.03	0.03	—	0.03	—	142	142	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.48	0.49	7.81	0.00	0.00	1.47	1.47	0.00	0.34	0.34	—	1,551	1,551	0.07	0.05	5.68	1,574
Vendor	0.02	0.89	0.44	0.01	0.01	0.21	0.22	0.01	0.06	0.06	—	783	783	0.03	0.11	2.14	818
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.48	0.54	6.62	0.00	0.00	1.47	1.47	0.00	0.34	0.34	—	1,470	1,470	0.07	0.06	0.15	1,489
Vendor	0.02	0.93	0.44	0.01	0.01	0.21	0.22	0.01	0.06	0.06	—	783	783	0.03	0.11	0.06	817
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.23	0.28	3.32	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	713	713	0.03	0.03	1.17	722
Vendor	0.01	0.45	0.21	< 0.005	0.01	0.10	0.11	< 0.005	0.03	0.03	—	374	374	0.02	0.05	0.44	390
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	118	118	0.01	< 0.005	0.19	120

Vendor	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	61.9	61.9	< 0.005	0.01	0.07	64.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.42	1.72	< 0.005	0.03	—	0.03	0.03	—	0.03	—	244	244	0.01	< 0.005	—	245
Architectural Coatings	11.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.03	0.25	0.30	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	42.2	42.2	< 0.005	< 0.005	—	42.3
Architectural Coatings	1.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	—	6.98	6.98	< 0.005	< 0.005	—	7.00

Architectu	0.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coatings																	
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	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	0.10	0.10	1.56	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	310	310	0.01	0.01	1.14	315
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.5	51.5	< 0.005	< 0.005	0.08	52.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	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	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.53	8.53	< 0.005	< 0.005	0.01	8.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	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	—	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.

4.2. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	833	833	0.06	0.01	—	837
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	508	508	0.04	0.01	—	511
Total	—	—	—	—	—	—	—	—	—	—	—	1,442	1,442	0.10	0.01	—	1,449
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	833	833	0.06	0.01	—	837
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	100	100	0.01	< 0.005	—	101
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	508	508	0.04	0.01	—	511
Total	—	—	—	—	—	—	—	—	—	—	—	1,442	1,442	0.10	0.01	—	1,449
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	138	0.01	< 0.005	—	139
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6	< 0.005	< 0.005	—	16.7
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	84.2	84.2	0.01	< 0.005	—	84.6
Total	—	—	—	—	—	—	—	—	—	—	—	239	239	0.02	< 0.005	—	240

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492
Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.29	8.29	< 0.005	< 0.005	—	8.32
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.39	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	499	499	0.04	< 0.005	—	501
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartment Mid Rise	0.02	0.39	0.16	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	492

Regional Shopping Center	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.29	8.29	< 0.005	< 0.005	—	8.32
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.39	0.17	< 0.005	0.03	—	0.03	0.03	—	0.03	—	499	499	0.04	< 0.005	—	501
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.07	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.3	81.3	0.01	< 0.005	—	81.5
Regional Shopping Center	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.37	1.37	< 0.005	< 0.005	—	1.38
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.07	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	82.7	82.7	0.01	< 0.005	—	82.9

4.3. Area Emissions by Source

4.3.2. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	747	747	0.05	0.01	—	751
Consumer Products	2.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectu Coatings	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	1.12	0.09	9.68	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.8	30.8	< 0.005	< 0.005	—	30.9
Total	3.82	0.09	9.68	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	778	778	0.05	0.01	—	782
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	747	747	0.05	0.01	—	751
Consum er Products	2.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.70	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	747	747	0.05	0.01	—	751
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	8.47	8.47	< 0.005	< 0.005	—	8.51
Consum er Products	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectu ral Coatings	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscap e Equipme nt	0.14	0.01	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.49	3.49	< 0.005	< 0.005	—	3.51
Total	0.63	0.01	1.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	12.0	12.0	< 0.005	< 0.005	—	12.0

4.4. Water Emissions by Land Use

4.4.2. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	7.93	53.3	61.2	0.82	0.02	—	87.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.75	5.05	5.81	0.08	< 0.005	—	8.31
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	8.68	58.3	67.0	0.89	0.02	—	95.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	7.93	53.3	61.2	0.82	0.02	—	87.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.75	5.05	5.81	0.08	< 0.005	—	8.31
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	8.68	58.3	67.0	0.89	0.02	—	95.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1.31	8.82	10.1	0.14	< 0.005	—	14.5
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.12	0.84	0.96	0.01	< 0.005	—	1.38
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	1.44	9.66	11.1	0.15	< 0.005	—	15.9

4.5. Waste Emissions by Land Use

4.5.2. 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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	44.3	0.00	44.3	4.43	0.00	—	155
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	3.00	0.00	3.00	0.30	0.00	—	10.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	47.3	0.00	47.3	4.73	0.00	—	165
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartment Mid Rise	—	—	—	—	—	—	—	—	—	—	44.3	0.00	44.3	4.43	0.00	—	155
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	3.00	0.00	3.00	0.30	0.00	—	10.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	47.3	0.00	47.3	4.73	0.00	—	165
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	7.33	0.00	7.33	0.73	0.00	—	25.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	0.50	0.00	0.50	0.05	0.00	—	1.74
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	7.83	0.00	7.83	0.78	0.00	—	27.4

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79

Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.82	0.82
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.79	0.79
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.82	0.82
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.14	0.14

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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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)

Equipme Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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	9/1/2023	9/29/2023	5.00	20.0	—
Site Preparation	Site Preparation	9/30/2023	6/8/2024	5.00	180	—
Construction	Building Construction	6/9/2024	9/1/2025	5.00	321	—
Architectural Coating	Architectural Coating	6/5/2025	9/1/2025	5.00	63.0	—

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	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Site Preparation	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Site Preparation	Bore/Drill Rigs	Diesel	Average	1.00	6.00	83.0	0.50
Site Preparation	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
Site Preparation	Welders	Diesel	Average	1.00	6.00	46.0	0.45
Site Preparation	Cement and Mortar Mixers	Diesel	Average	3.00	6.00	10.0	0.56
Site Preparation	Pumps	Diesel	Average	2.00	6.00	11.0	0.74
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	6.00	46.0	0.31

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	6.25	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	27.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	16.0	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.4	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
Construction	—	—	—	—
Construction	Worker	112	18.5	LDA,LDT1,LDT2
Construction	Vendor	24.7	10.2	HHDT,MHDT
Construction	Hauling	0.00	20.0	HHDT
Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

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	215,784	71,928	10,165	2,896	2,953

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	498	—
Site Preparation	—	23,000	78.8	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%
Regional Shopping Center	0.00	0%
Enclosed Parking with Elevator	1.13	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	690	0.05	0.01
2024	0.00	690	0.05	0.01
2025	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	767	767	767	279,955	6,017	6,017	6,017	2,196,205

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	100
No Fireplaces	11
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)
224554.275	74,851	10,165	2,896	2,953

5.10.3. Landscape Equipment

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 CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	440,407	690	0.0489	0.0069	1,532,356
Regional Shopping Center	53,086	690	0.0489	0.0069	25,882
Enclosed Parking with Elevator	268,736	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	4,137,392	0.00
Regional Shopping Center	392,584	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	27.7	0.00
Regional Shopping Center	5.57	0.00
Enclosed Parking with Elevator	0.00	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
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

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
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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
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5.16.2. Process Boilers

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	18.8	annual days of extreme heat
Extreme Precipitation	5.55	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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
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Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	94.8
AQ-DPM	35.1
Drinking Water	83.1
Lead Risk Housing	91.6
Pesticides	0.00
Toxic Releases	56.6
Traffic	49.8
Effect Indicators	—
CleanUp Sites	11.8
Groundwater	11.0
Haz Waste Facilities/Generators	37.7
Impaired Water Bodies	51.2
Solid Waste	0.00
Sensitive Population	—
Asthma	82.7
Cardio-vascular	84.7
Low Birth Weights	11.6
Socioeconomic Factor Indicators	—
Education	58.1
Housing	93.1
Linguistic	37.7
Poverty	35.4
Unemployment	74.1

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	62.19684332
Employed	79.81521879
Median HI	53.29141537
Education	—
Bachelor's or higher	47.36301809
High school enrollment	20.74939048
Preschool enrollment	42.14038239
Transportation	—
Auto Access	71.35891184
Active commuting	65.1353779
Social	—
2-parent households	28.38444758
Voting	46.41344797
Neighborhood	—
Alcohol availability	26.58796356
Park access	51.41793918
Retail density	68.47170538
Supermarket access	84.72988579
Tree canopy	53.71487232
Housing	—
Homeownership	75.19568844
Housing habitability	31.39997434
Low-inc homeowner severe housing cost burden	4.427049917
Low-inc renter severe housing cost burden	18.72192994
Uncrowded housing	39.26600796

Health Outcomes	—
Insured adults	28.7950725
Arthritis	48.2
Asthma ER Admissions	18.5
High Blood Pressure	68.0
Cancer (excluding skin)	45.0
Asthma	55.1
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	40.0
Diagnosed Diabetes	45.6
Life Expectancy at Birth	33.3
Cognitively Disabled	72.6
Physically Disabled	67.1
Heart Attack ER Admissions	22.2
Mental Health Not Good	42.4
Chronic Kidney Disease	55.3
Obesity	42.2
Pedestrian Injuries	92.3
Physical Health Not Good	40.7
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	35.4
Current Smoker	43.7
No Leisure Time for Physical Activity	50.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	41.8
Elderly	56.5
English Speaking	73.0
Foreign-born	79.5
Outdoor Workers	24.5
Climate Change Adaptive Capacity	—
Impervious Surface Cover	58.6
Traffic Density	57.1
Traffic Access	23.0
Other Indices	—
Hardship	52.4
Other Decision Support	—
2016 Voting	34.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	71.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
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	4-story, 111 apartment units with 5.3 TSF of commercial uses on top of 2 levels of subterranean parking structures with 182 spaces on 1.13 acres.
Construction: Construction Phases	Demolition and construction to start 9/2023 and take 24 months.
Construction: Off-Road Equipment	Extra equipment added for site prep/excavation/foundation work.
Construction: Architectural Coatings	SCAQMD Rule 1113 limits paints applied to buildings to 50g/L VOC content.
Operations: Hearths	No wood stoves and only electric fireplaces

APPENDIX B: EMFAC DATA

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Air Basin

Region: South Coast

Calendar Year: 2023

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class
South Coast	2023	HHDT	Aggregate	Aggregate	Gasoline	77.76705152	1555.963167	0	1.13577086	1135.77086	1904593.073	4463.059823	11986522.09	6.29	HHDT
South Coast	2023	HHDT	Aggregate	Aggregate	Diesel	88939.48335	1354183.938	0	1901.434302	1901434.302	11341687.62	11341687.62			
South Coast	2023	HHDT	Aggregate	Aggregate	Electricity	69.55210742	1090.269168	7969.44745	0	0	4465.990707	4465.990707			
South Coast	2023	HHDT	Aggregate	Aggregate	Natural Gas	9734.51825	62334.09461	0	108.4243363	108424.3363	635905.4264	635905.4264			
South Coast	2023	LDA	Aggregate	Aggregate	Gasoline	5370115.979	25014254.84	0	7560.140191	7560140.191	7688683.513	216250190.4	234402460.7	30.49	LDA
South Coast	2023	LDA	Aggregate	Aggregate	Diesel	15648.45784	65526.69936	0	11.94439033	11944.39033	486634.8854	486634.8854			
South Coast	2023	LDA	Aggregate	Aggregate	Electricity	241152.5368	1208859.723	4312325.17	0	0	11169438.62	11169438.62			
South Coast	2023	LDA	Aggregate	Aggregate	Plug-in Hybrid	136333.5236	563739.1202	971420.6342	116.5989322	116598.9322	6496196.814	6496196.814			
South Coast	2023	LDT1	Aggregate	Aggregate	Gasoline	499113.9009	2195668.394	0	753.4930394	753493.0394	754054.6567	18009866.74	18076073.23	23.97	LDT1
South Coast	2023	LDT1	Aggregate	Aggregate	Diesel	197.6298759	575.4909742	0	0.161278255	161.278255	3756.265001	3756.265001			
South Coast	2023	LDT1	Aggregate	Aggregate	Electricity	1012.723437	4715.252993	14723.34847	0	0	38135.23576	38135.23576			
South Coast	2023	LDT1	Aggregate	Aggregate	Plug-in Hybrid	463.9603347	1918.475984	3964.563568	0.400339089	400.3390888	24314.99018	24314.99018			
South Coast	2023	LDT2	Aggregate	Aggregate	Gasoline	2429950.117	11422828.59	0	4340.074795	4340074.795	4365928.785	100292660.9	101911704.2	23.34	LDT2
South Coast	2023	LDT2	Aggregate	Aggregate	Diesel	7734.815855	37335.71589	0	10.96643985	10966.43985	337920.5463	337920.5463			
South Coast	2023	LDT2	Aggregate	Aggregate	Electricity	11160.73812	57317.98395	159502.5609	0	0	413130.7341	413130.7341			
South Coast	2023	LDT2	Aggregate	Aggregate	Plug-in Hybrid	17128.65814	70827.00142	136848.0138	14.88755019	14887.55019	867992.1123	867992.1123			
South Coast	2023	LHDT1	Aggregate	Aggregate	Gasoline	200398.3929	2985637.46	0	589.944376	589944.376	795980.0519	7820670.654	12015327.21	15.10	LHDT1
South Coast	2023	LHDT1	Aggregate	Aggregate	Diesel	99896.36028	1256570.543	0	206.0356758	206035.6758	4194656.56	4194656.56			
South Coast	2023	LHDT2	Aggregate	Aggregate	Gasoline	31213.47663	465034.2937	0	99.14469838	99144.69838	206307.908	1156671.072	2985280.201	14.47	LHDT2
South Coast	2023	LHDT2	Aggregate	Aggregate	Diesel	43691.53059	549584.4908	0	107.1632097	107163.2097	1828609.129	1828609.129			
South Coast	2023	MCY	Aggregate	Aggregate	Gasoline	237586.076	475172.1521	0	36.88140998	36881.40998	36881.40998	1522726.619	1522726.619	41.29	MCY
South Coast	2023	MDV	Aggregate	Aggregate	Gasoline	1559902.035	7210563.701	0	3188.051046	3188051.046	3230287.568	60070040.07	61764195.73	19.12	MDV
South Coast	2023	MDV	Aggregate	Aggregate	Diesel	19613.50466	92462.53217	0	33.91368569	33913.68569	784655.9403	784655.9403			
South Coast	2023	MDV	Aggregate	Aggregate	Electricity	12017.75416	61732.39119	171855.0799	0	0	445125.2375	445125.2375			
South Coast	2023	MDV	Aggregate	Aggregate	Plug-in Hybrid	10053.44096	41570.97836	70940.44124	8.322835871	8322.835871	464374.4805	464374.4805			
South Coast	2023	MH	Aggregate	Aggregate	Gasoline	30468.55432	3048.074174	0	59.14587153	59145.87153	70446.99764	287687.7216	401829.5371	5.70	MH
South Coast	2023	MH	Aggregate	Aggregate	Diesel	11533.11741	1153.311741	0	11.30112611	11301.12611	114141.8155	114141.8155			
South Coast	2023	MHDT	Aggregate	Aggregate	Gasoline	25436.77287	508938.9517	0	266.1846594	266184.6594	808347.4856	1361855.942	6189907.424	7.66	MHDT
South Coast	2023	MHDT	Aggregate	Aggregate	Diesel	112753.1691	1384256.954	0	542.1628262	542162.8262	4826755.64	4826755.64			
South Coast	2023	MHDT	Aggregate	Aggregate	Electricity	60.14211345	769.7741807	1354.591964	0	0	1295.841104	1295.841104			
South Coast	2023	MHDT	Aggregate	Aggregate	Natural Gas	1405.746156	12603.45034	0	8.268140472	8268.140472	68507.0989	68507.0989			
South Coast	2023	OBUS	Aggregate	Aggregate	Gasoline	5457.340752	109190.4738	0	43.78040647	43780.40647	77110.24352	220170.8028	453397.9409	5.88	OBUS
South Coast	2023	OBUS	Aggregate	Aggregate	Diesel	2949.128306	37294.91051	0	33.32983706	33329.83706	233227.1381	233227.1381			
South Coast	2023	OBUS	Aggregate	Aggregate	Natural Gas	467.0036657	4156.332625	0	3.280062265	3280.062265	28665.48863	28665.48863			
South Coast	2023	SBUS	Aggregate	Aggregate	Gasoline	2711.533402	10846.13361	0	13.42826072	13428.26072	22892.86276	119164.9071	188479.341	8.23	SBUS
South Coast	2023	SBUS	Aggregate	Aggregate	Diesel	3377.128927	48900.82686	0	9.464602039	9464.602039	69271.73995	69271.73995			
South Coast	2023	SBUS	Aggregate	Aggregate	Electricity	3.674682915	53.20940862	49.36713892	0	0	42.69400814	42.69400814			
South Coast	2023	SBUS	Aggregate	Aggregate	Natural Gas	2976.329163	43097.24627	0	17.80624767	17806.24767	74753.64709	74753.64709			
South Coast	2023	UBUS	Aggregate	Aggregate	Gasoline	894.3697717	3577.479087	0	14.17067148	14170.67148	204710.9133	96960.55907	694841.5831	3.39	UBUS
South Coast	2023	UBUS	Aggregate	Aggregate	Diesel	14.61165815	58.44663261	0	0.262644403	262.644403	1749.021883	1749.021883			
South Coast	2023	UBUS	Aggregate	Aggregate	Electricity	58.03212573	232.1285029	5326.224873	0	0	2539.586791	2539.586791			
South Coast	2023	UBUS	Aggregate	Aggregate	Natural Gas	4957.576963	19830.30785	0	190.2775974	190277.5974	593592.4153	593592.4153			

Source: EMFAC2021 (v1.0.1) Emissions Inventory

Region Type: Air Basin

Region: South Coast

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	Trips	Energy Consumption	Fuel Consumption	Fuel Consumption	Total Fuel Consumption	Total VMT	Total VMT	Miles Per Gallon	Vehicle Class		
South Coast	2025	HHDT	Aggregate	Aggregate	Gasoline	54.83401411	1097.118954	0	0	0.915660885	915.6608849	2033428.223	3783.739566	12499201.56	6.15	HHDT	
South Coast	2025	HHDT	Aggregate	Aggregate	Diesel	95337.36817	1459640.636	0	0	1919.938673	1919938.673		11745346.31				
South Coast	2025	HHDT	Aggregate	Aggregate	Electricity	647.565363	8586.113967	125035.0292	0	0	0		69780.1703				
South Coast	2025	HHDT	Aggregate	Aggregate	Natural Gas	10701.05249	68656.35135	0	0	112.5738892	112573.8892		680291.3416				
South Coast	2025	LDA	Aggregate	Aggregate	Gasoline	5244723.652	24385315.28	0	0	7108.358927	7108358.927	7245907.135	210339700.5	233546247.7	32.23	LDA	
South Coast	2025	LDA	Aggregate	Aggregate	Diesel	13504.15254	56096.65324	0	0	9.832104986	9832.104986		408222.3366				
South Coast	2025	LDA	Aggregate	Aggregate	Electricity	314906.6469	1568075.372	5911352.826	0	0	0		15311111.74				
South Coast	2025	LDA	Aggregate	Aggregate	Plug-in Hybrid	159860.278	661022.2496	1174382.35	0	0	127.7161032	127716.1032		7487213.196			
South Coast	2025	LDT1	Aggregate	Aggregate	Gasoline	483367.514	2127610.282	0	0	708.9359688	708935.9688	709884.4736	17503198.77	17626287.18	24.83	LDT1	
South Coast	2025	LDT1	Aggregate	Aggregate	Diesel	161.5260868	453.3891137	0	0	0.127085477	127.0854768		2967.035899				
South Coast	2025	LDT1	Aggregate	Aggregate	Electricity	1505.26458	7236.189381	25889.93818	0	0	0		67058.04036				
South Coast	2025	LDT1	Aggregate	Aggregate	Plug-in Hybrid	1033.948372	4275.376518	9086.363765	0	0	8.21419376	821.4193759		53063.32883			
South Coast	2025	LDT2	Aggregate	Aggregate	Gasoline	2528171.942	11891190.15	0	0	4341.426391	4341426.391	4373117.135	104543301.5	106927231	24.45	LDT2	
South Coast	2025	LDT2	Aggregate	Aggregate	Diesel	8518.978579	40955.39339	0	0	11.53683826	11536.83826		366939.3838				
South Coast	2025	LDT2	Aggregate	Aggregate	Electricity	21565.05505	109850.7805	300027.449	0	0	0		777107.023				
South Coast	2025	LDT2	Aggregate	Aggregate	Plug-in Hybrid	25221.81395	104292.2007	204751.9727	0	0	20.15390552	20153.90552		1239883.058			
South Coast	2025	LHDT1	Aggregate	Aggregate	Gasoline	199655.4178	2974568.238	0	0	565.7929114	565792.9114	785253.6339	7899242.311	12579982.86	16.02	LHDT1	
South Coast	2025	LHDT1	Aggregate	Aggregate	Diesel	107539.0383	1352705.817	0	0	219.4607225	219460.7225		4531936.528				
South Coast	2025	LHDT1	Aggregate	Aggregate	Electricity	2131.529069	29802.51665	83294.25907	0	0	0		148804.02				
South Coast	2025	LHDT2	Aggregate	Aggregate	Gasoline	30849.1838	459606.8733	0	0	93.96299335	93962.99335	208962.5987	1145449.689	3183322.084	15.23	LHDT2	
South Coast	2025	LHDT2	Aggregate	Aggregate	Diesel	48016.98656	603993.2855	0	0	114.9996053	114999.6053		2001431.485				
South Coast	2025	LHDT2	Aggregate	Aggregate	Electricity	549.452873	7286.296511	20413.74678	0	0	0		36440.90994				
South Coast	2025	MCY	Aggregate	Aggregate	Gasoline	246317.3152	492634.6304	0	0	37.82728892	37827.28892	37827.28892	1575969.655	1575969.655	41.66	MCY	
South Coast	2025	MDV	Aggregate	Aggregate	Gasoline	1582911.671	7327873.919	0	0	3124.528435	3124528.435	3169334.086	61244218.19	63579746.09	20.06	MDV	
South Coast	2025	MDV	Aggregate	Aggregate	Diesel	19966.30161	93386.67778	0	0	32.96063764	32960.63764		783550.3632				
South Coast	2025	MDV	Aggregate	Aggregate	Electricity	23405.95686	119202.2123	325389.6809	0	0	0		842798.2408				
South Coast	2025	MDV	Aggregate	Aggregate	Plug-in Hybrid	15515.87163	64158.1292	115605.1765	0	0	11.8450132	11845.0132		709179.3041			
South Coast	2025	MH	Aggregate	Aggregate	Gasoline	28222.75742	2823.404652	0	0	55.89330175	55893.30175	67478.95091	271714.048	388622.5468	5.76	MH	
South Coast	2025	MH	Aggregate	Aggregate	Diesel	11853.97154	1185.397154	0	0	11.58564916	11585.64916		116908.4988				
South Coast	2025	MHDT	Aggregate	Aggregate	Gasoline	24266.37368	485521.6046	0	0	246.6220886	246622.0886	803911.5702	1285729.87	6330495.207	7.87	MHDT	
South Coast	2025	MHDT	Aggregate	Aggregate	Diesel	117076.634	1440705.231	0	0	548.3413637	548341.3637		4914316.485				
South Coast	2025	MHDT	Aggregate	Aggregate	Electricity	1030.710845	13697.48889	58527.95377	0	0	0		55891.50984				
South Coast	2025	MHDT	Aggregate	Aggregate	Natural Gas	1586.964447	14102.34275	0	0	8.94811801	8948.11801		74557.34189				
South Coast	2025	OBUS	Aggregate	Aggregate	Gasoline	5130.782804	102656.7023	0	0	38.98709136	38987.09136	75404.10956	199581.2481	465625.8692	6.18	OBUS	
South Coast	2025	OBUS	Aggregate	Aggregate	Diesel	3078.572652	39272.27543	0	0	33.03961652	33039.61652		233905.0145				
South Coast	2025	OBUS	Aggregate	Aggregate	Electricity	29.09533983	582.1395594	2258.641236	0	0	0		2147.933443				
South Coast	2025	OBUS	Aggregate	Aggregate	Natural Gas	505.1478218	4495.815614	0	0	3.377401677	3377.401677		29991.67319				
South Coast	2025	SBUS	Aggregate	Aggregate	Gasoline	2812.998756	11251.99503	0	0	13.81627409	13816.27409	41147.02398	123623.802	268314.9981	6.52	SBUS	
South Coast	2025	SBUS	Aggregate	Aggregate	Diesel	3181.542446	46068.73461	0	0	8.734797087	8734.797087		64276.54474				
South Coast	2025	SBUS	Aggregate	Aggregate	Electricity	47.38132065	537.5923668	1681.228052	0	0	0		1453.97051				
South Coast	2025	SBUS	Aggregate	Aggregate	Natural Gas	3209.535885	46474.07961	0	0	18.59595281	18595.95281		78960.68088				
South Coast	2025	UBUS	Aggregate	Aggregate	Gasoline	892.063682	3568.254728	0	0	13.80114714	13801.14714	198998.2045	96751.77026	697627.2588	3.51	UBUS	
South Coast	2025	UBUS	Aggregate	Aggregate	Diesel	11.19759793	44.79039173	0	0	0.207460052	207.4600516		1417.05095				
South Coast	2025	UBUS	Aggregate	Aggregate	Electricity	163.9010308	655.6041234	34521.6162	0	0	0		16501.94536				
South Coast	2025	UBUS	Aggregate	Aggregate	Natural Gas	4881.393278	19525.57311	0	0	184.9895973	184989.5973		582956.4922				



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 that includes changes to the building footprint, including demolition or grading permit applications, shall provide a Tree Disclosure Statement completed and signed by the Property Owner.

If 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 will be required, and the field visit must be conducted by a qualified Tree Expert.

Property Address: 16949-16955 W Sherman Way

Date Of Field Visit: 05/27/22

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 Specific Plan Area and contain any trees 12" 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

Tree Expert Credentials (if applicable)

Name of Tree Expert: Jan C. Scow

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.: ASCA Registered Consulting Arborist #382;

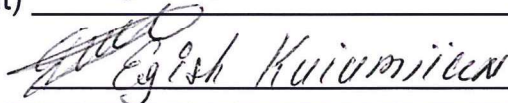
Boar Certified Master Arborist # WE-1972B

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 64.00, which can lead to criminal and/or civil legal action. 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) Lion Signature, Inc.

Owner Signature



Date 5-13-2022

Name of the Authorized Signatory (Print):
Egish Kuiumjian, Chief Executive Officer, Board Member

CITY OF LOS ANGELES

CALIFORNIA

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

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DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

March 1, 2021

LOG # 116196
SOILS/GEOLOGY FILE - 2

Lion Signature
6362 Van Nuys Blvd
Van Nuys, CA 91401

TRACT: 28401
LOT: LT1
LOCATION: 16949-16955 West Sherman Way

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Soils Report	20-647-02	12/03/2020	Applied Earth Sciences

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provide recommendations for the proposed four-story (84-units) apartment building over garage on grade. The site was occupied with a commercial building and a paved parking lot that will demolished for the new development. The earth materials at the subsurface exploration locations consist of up to 2 feet of uncertified fill underlain by native. The consultants recommend to support the proposed structure on conventional foundations bearing on a blanket of properly placed fill a minimum of 3 feet thick.

As of January 1, 2020, the City of Los Angeles has adopted the new 2020 Los Angeles Building Code (LABC). The 2020 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2020.

The referenced report is acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

2. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
 3. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
 4. A grading permit shall be obtained for all structural fill (106.1.2).
 5. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.
 6. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).
 7. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet whichever is greater, except at locations where lateral over excavation is not possible, in which case the foundations may be deepened to bear in native soils, as recommended (7011.3).
 8. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
 9. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
 10. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cubic yards (7007.1).
- 6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605
11. All loose foundation excavation material shall be removed prior to commencement of framing. (7005.3).
 12. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).
 13. Excavations shall not remove lateral support from a public way, adjacent property or an existing structure. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

14. A supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction in the event that any excavation would remove lateral support to the public way, adjacent property, or adjacent structures (3307.3). A plot plan and cross-section(s) showing the construction type, number of stories, and location of the structures adjacent to the excavation shall be part of the excavation plans (7006.2).
15. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).
16. All foundations shall derive entire support from a blanket of properly placed fill a minimum of 3 feet thick, as recommended and approved by the soils engineer by inspection.
17. Footings supported on approved compacted fill or expansive soil shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.
18. The foundation/slab design shall satisfy all requirements of the Information Bulletin P/BC 2017-116 “Foundation Design for Expansive Soils” (1803.5.3).
19. Slabs placed on approved compacted fill shall be at least 5 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.
20. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane.
21. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.
22. The structure shall be connected to the public sewer system per P/BC 2020-027.
23. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works[; water shall not be dispersed on to descending slopes without specific approval from the Grading Division and the consulting geologist and soils engineer] (7013.10).
24. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
25. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).
26. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also

inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

27. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; protection fences; and, dust and traffic control will be scheduled (108.9.1).
28. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).
29. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.



ROCIO DURAN
Structural Engineering Associate II

RD/rd

Log No. 116196

213-482-0480

cc: Applied Earth Sciences, Project Consultant
VN District Office

REPORT OF
GEOTECHNICAL INVESTIGATION AND PERCOLATION TESTING
PROPOSED APARTMENT BUILDING PROJECT

LOT LT 1 TRACT NO. 28401
16949-16955 WEST SHERMAN WAY
LOS ANGELES, CALIFORNIA 91406

FOR
LION SIGNATURE, INC.

PROJECT NO. 20-647-02

DECEMBER 3, 2020



a division of Applied Soil Technology, Inc.

GEOTECHNICAL & ENVIRONMENTAL ENGINEERING CONSULTANTS

December 3, 2020

20-647-02

Lion Signature, Inc.
100 Franklin Court
Glendale, California 91205

Attention: Ms. Silvia Kuiumjian

Subject: Geotechnical Investigation
And Percolation Testing
Proposed Apartment Building Project
Lot LT 1 Of Tract No. 28401
16949-16955 West Sherman Way
Los Angeles, California 91406

Dear Ms. Kuiumjian:

INTRODUCTION

This report presents the results of a geotechnical investigation for the subject project. During the course of this investigation, the engineering properties of the subsurface materials were evaluated in order to provide recommendations for design and construction of foundations and grading. The investigation included subsurface exploration, soil sampling, laboratory testing, engineering evaluation and analysis, consultation and preparation of this report.

During the course of this investigation, the project plans prepared by the offices of Art Construction Services were used as reference.

The enclosed Drawing No. 1, entitled Site Plan, shows the approximate locations of the exploratory borings in relation to the site boundaries and the proposed new building. This drawing also shows the approximate location of the Perc-1 within which on-site percolation was performed.

Figure No. 1 shows the Site Vicinity Map. Figure No. 2 shows the Regional Topographic Map. Figure No. 3 shows the Regional Geologic Maps. Figure No. 4 shows the Historically Highest Groundwater Contour Map.

The attached Appendix I, describes the method of field exploration. Figure Nos. I-1 through I-5 present summaries of the soils encountered at the location of our exploratory borings. Figure No. I-6 presents a key to the log of exploratory borings.

Appendix II describes the laboratory testing procedures. Figure Nos. II-1 and II-2 present the results of direct shear and consolidation tests performed on selected undisturbed samples.

PROJECT CONSIDERATIONS

It is our understanding that the proposed project will consist of construction of an apartment building at the subject site. The proposed building will be four stories. Portions of the ground floor will be used for parking and offices. The upper floors will be used for living spaces.

The flooring system of the ground floor will be in a form of concrete grade slabs established at or near the present grade. No basement is planned. The approximate location of the proposed building with respect to the site boundaries is shown on the enclosed Site Plan; Drawing No. 1.

Structural loading data was not available during the course of preparation of this report. For the purpose of this report, however, it is assumed that the magnitude of the collected load would be on the order of 300 kips, combined dead, plus frequently applied live loads. Wall loads are expected to be on the order of 6 kips per lineal foot.

ANTICIPATED SITE GRADING WORK

Site grading for the proposed project will involve removal and recompaction of the surficial fill and any disturbed soils generated from removal of the existing structures/paving and the upper three feet of the compressible soils (a total thickness of about 5 feet).

The zone of removal should be extended beyond the exterior walls of the proposed building a horizontal distance equal to the thickness of removal. Some 10 percent shrinkage should be assumed when reusing the excavated materials in the areas of new fill which will have higher densities. Therefore, import soils may be

required to accomplish the site grading work. All imported soils should be non-expansive and granular in nature (similar to the site soils).

SITE CONDITIONS

SITE SURFACE CONDITIONS

The site of the proposed development is located at 16949-16955 West Sherman Way, Van Nuys, California. The site is rectangular in shape covering a plan area of about 50,000 square feet. See the enclosed Site Plan; Drawing No. 1 for the site location.

At the time of our investigation, a commercial building occupied the site. The other areas were paved and was being used as parking lot.

The site is generally level. No slope occurs within, or in the close vicinity of the subject site.

SUBSURFACE CONDITIONS

Correlation of the subsoil between the test borings was considered to be good. Generally, the site, to the depths explored, was found to be covered with surficial fill (silty sand) underlain by natural deposits of silty sand, sandy silt and relatively clean sand soils. Thickness of the surficial fill was found to be on the order of 2 feet in our borings. Deeper fill, however, may be present beneath the existing structures and in old utility lines.

The surficial fill and top 3 feet of the native soils (a total thickness of 5 feet) should not be used for support of new fill, structural foundations, and grade slabs at their present state. Such soils, however, can be excavated and reused in the areas of new compacted fill.

The underlying native soils below a depth of about 6 feet were found to be medium dense in-place and adequate to receive new fill for support of grade slabs and structural foundations. The results of our laboratory testing indicated that the site native soils within the zone of influence of foundation pressure were of moderate strength and moderately compressible.

The site soils (including the existing fill) were found to consist of sand. Such soils are considered to be virtually non-expansive.

During the course of our field investigation, no water was found in our borings drilled to a maximum depth of 26 feet. The State Maps, however, show the historically highest groundwater level in the vicinity of the subject site to be between 40 to 50 feet below ground surface. See the enclosed Figure No. 4.

Due to the method of drilling (use of continuous auger) caving was not detected in our borings. Considering that the site upper soils have significant amount of silt, forming is expected not to be required during foundation construction.

SEISMIC DESIGN CONSIDERATIONS

In accordance with the ASCE7-16, corresponding to LABC 2020, the project site can be classified as site "D". The mapped spectral accelerations of $S_s=2.003$ (short period) and $S_1=0.696$ (1-second period) can be used for this project. These parameters correspond to site Coefficients values of $F_a=1.0$ and $F_v = \text{null}$ (see the Note below), respectively.

The seismic design parameters would be as follows:

$S_{MS}=F_a(S_s) = 1.0(2.003) = 2.003$	$S_{M1}=F_v(S_1) = \text{null}$ (see Note below)
$S_{DS}=2/3(S_{MS}) = 2/3(2.003) = 1.335$	$S_{D1}=2/3(S_{M1}) = \text{null}$ (see Note below)

Note: Since the seismic factor S_1 is greater than 0.2 site-specific ground motion hazard analyses may be required. The project structural engineer shall determine if an exemption can be applied in accordance with ASCE7-16 Section 11.4.8. If an exemption applies, a long period coefficient (F_v) of 1.7 may be utilized for calculation of the seismic parameters S_{M1} and S_{D1} in the above Table.

DISCUSSION OF SOIL LIQUEFACTION POTENTIAL

During the course of our investigation, no groundwater was found in our borings extended to depths of about 26 feet. The historically highest groundwater level at the site is shown by the State maps to be between 40 to 50 feet below ground surface in the general vicinity of the subject site (see the enclosed Figure No. 4). The State of

California Seismic Hazard Zone Maps has placed the subject site outside the designated area of potential liquefaction. On this basis, it is our opinion that soil liquefaction will not occur at the subject site.

EVALUATION AND RECOMMENDATIONS

GENERAL

Based on the geotechnical engineering data derived from this investigation, the site can be developed as planned. The existing fill and top 3 feet of the native soils (a total thickness of 5 feet) are considered to be inadequate for support of new fill, structural foundations, grade slabs at their present state. Such fill soils, however, can be excavated and reused in the areas of new fill. The zone of removal should be extended beyond the exterior walls of the proposed building a horizontal distance equal to the thickness of removal. The new fill will be used for support of grade slabs and foundations.

After proper site grading, conventional spread footing foundation system can be used for support of the proposed building. The foundation bearing materials should consist of properly compacted fill soils.

Grade slabs can be supported on the finished grades which would be properly compacted granular fill soils. For the purpose of this project, it is recommended that the concrete grade slabs for this project to have a minimum section of 5 inches and be reinforced with #4 bars placed at every 16 inches on center, each way.

The following sections present our specific recommendations for foundations, lateral design, grade slabs, grading, surface drainage, and observations during construction.

GRADING RECOMMENDATIONS

Site grading for the proposed project will involve removal and recompaction of the surficial fill and any disturbed soils generated from removal of the existing structures/paving and the upper four feet of the compressible soils (a total thickness of 5 feet). The new fill will be used for support of grade slabs and foundations.

The zone of removal should be extended beyond the exterior walls of the proposed building a horizontal distance equal to the thickness of removal. Some 10 percent shrinkage should be assumed when reusing the excavated site soils in the areas of new fill which will be denser.

Due to shrinkage considerations, imported soils may be required to accomplish the site grading work. All imported soils should be non-expansive and granular in nature and similar to the site soils.

Prior to placement of any fill on the site, the Soil Engineer should observe the excavation bottoms. The areas to receive compacted fill should be scarified to a depth of about 8 inches and compacted to at least 90 percent of the maximum dry density as determined by the ASTM Designation D 1557 Compaction Method.

All import soils should be free of organic matter and rocks larger than 4 inches in diameter. Before import soils are brought to the site, a 40-pound sample of the proposed import soils should be submitted to the Soil Engineer (at least 48 hours in advance) so that the maximum density and expansion character of the import materials can be determined.

General guidelines regarding site grading are presented below in an itemized form which may be included in the earthwork specification. It is recommended that all fill be placed under engineering observation and in accordance with the following guidelines:

1. All vegetation and debris should be collected and hauled off-site. In the areas of new fill, the existing fill should be excavated until native soils are exposed.
2. The excavated areas should be observed and approved by the Soil Engineer prior to placing any fill.
3. The excavated sandy materials from the site are considered to be satisfactory for reuse in the compacted fill areas.
4. Fill material, approved by the Soil Engineer, should be placed in controlled layers. Each layer should be compacted to at least 90 percent of the maximum unit weight as determined by ASTM designation D 1557 for the material used.

5. The fill material shall be placed in layers which, when compacted, shall not exceed 8 inches per layer. Each layer shall be spread evenly and shall be thoroughly mixed during the spreading to insure uniformity of material in each layer.
6. When moisture content of the fill material is too low to obtain adequate compaction, water shall be added and thoroughly dispersed until the moisture content is near optimum.
7. When the moisture content of the fill material is too high to obtain adequate compaction, the fill material shall be aerated by blading or other satisfactory methods until near optimum moisture condition is achieved.
8. Inspection and field density tests should be conducted by the Soil Engineer during grading work to assure that adequate compaction is attained. Where compaction of less than 90 percent is indicated, additional compactive effort should be made with adjustment of the moisture content or layer thickness, as necessary, until at least 90 percent compaction is obtained.

SURFACE DRAINAGE

Adequate site drainage should be provided to divert roof and surface waters away from the proposed building and from the property through non-erodible drainage devices. In no case should the surface waters be allowed to pond adjacent to the buildings or anywhere on the building pads. A minimum surface slope of one and two percent are recommended for paved and unpaved areas, respectively.

The site drainage recommendations should also include the following:

1. Having positive slope away from the buildings, as recommended above;
2. Installation of roof drains, area drains and catch basins with appropriate connecting lines;
3. Managing landscape watering;
4. Regular maintenance of the drainage devices;
5. Installing waterproofing or damp proofing, whichever appropriate, beneath concrete grade slabs.
6. The owners should be familiar with the general maintenance guidelines of the City requirements.

FOUNDATIONS

Conventional spread footings can be used for support of the proposed building. The foundation bearing materials will be properly compacted fill soils.

New footings should be at least 18 inches wide and be placed at a minimum depth of 24 inches below the lowest adjacent final grades. Properly designed and constructed spread footings may be based on an allowable maximum bearing pressure of 1,800 pounds per square foot. This value can be increased at a rate of 120 and 240 pounds per square for each additional foot of footing width and depth, to a maximum value of 3,000 pounds per square foot.

The above given values are for the total of dead and frequently applied live loads. For short duration transient loading, such as wind or seismic forces, these values may be increased by one-third.

Under the allowable maximum soil pressure, footings with assumed collected loads of 300 kips is expected to settle less than 3/4 of one inch. Wall footings, with loads of about 6 kips per lineal foot are expected to settle on the order of 1/2 of one inch. Maximum differential settlements are expected to be on the order of 1/4 of an inch. The major portions of the settlements are expected to occur during construction.

LATERAL DESIGN

Lateral resistance at the base of footings in contact with properly compacted fill soils can be assumed to be the product of the dead load forces and a coefficient of friction of 0.30. Passive pressure on the face of footings may also be used to resist lateral forces. A passive pressure of zero at the finished grades and increasing at a rate of 250 pounds per square foot per foot of depth to a maximum value of 1,800 pounds per square foot may be used for footings poured against properly compacted fill soils.

GRADE SLABS

Grade slabs may be cast on the finished grades which consist of properly compacted fill soils. For the purpose of this project, it is recommended that the new grade slabs for this project to be at least 5 inches thick be reinforced with # 4 bars placed at every 16 inches on center, each way.

In the areas where moisture sensitive floor covering is used and slab dampness cannot be tolerated, a vapor-barrier should be used beneath the slabs. This normally consists of a 10-mil polyethylene film covered with 2 inches of clean sand.

ON-SITE STORM WATER INFILTRATION

It is our understanding that, as part of any new apartment building project, most jurisdictions now require installation of on-site storm water infiltration system where possible. This normally involves diversion of the storm water into a system that will allow infiltration into the ground for recharging of the aquifers. Depending upon the available space, the system can either be horizontal (trench drain) or vertical (dry well). It is common to use horizontal drain system for near grade projects where more space may be available and “dry well” for projects with basement or where adequate flat area is not available.

For the subject project, therefore, and due to available space, we have conducted in-situ testing for use of horizontal (trench) system. The trench system should be maintained at least 10 feet away from existing and new foundations and private property lines.

The testing for horizontal system was conducted in Perc-1 location. The enclosed Site Plan; Drawing No. 1, shows the approximate location of the test pit, within which the percolation testing was conducted.

The procedure for trench system design included performing the following tasks at the subject site:

1. Excavating the test pit to a depth of about 3 feet;
2. Extending a one cubic foot (1' X 1' X 1') hole at the base of the test pit;
3. Pre-saturating the one cubic foot holes overnight;
4. Conducting in-situ percolation testing the following day;
5. Making engineering evaluation/analysis/calculations;

Percolation test, using the "Ryon Method", was made in the excavated Perc-1 locations. The results of the tests were then used to provide recommendations for the rate of water dissipation into the subgrade. The recommended percolation rate will be used to estimate the size of the required trench drain.

The enclosed Site Plan; Drawing No. 1, shows the approximate location of the test pit within which the percolation testing was made. The test hole within which the percolation test was conducted was excavated with hand tools.

The test pit diameter was at least 3 feet to allow entry and water level measurements. One cubic foot holes (1' X1' X 1') were then advanced at the bottoms of the pits. The one cubic foot holes were then presoaked overnight prior to the initiation of the in-situ percolation testing.

On the second day, the one cubic foot holes at the base of the test pits were completely filled to the rims with water. The time of the drop of water level for each one inch were recorded in the field. The time it took the water to drop from 5 inch to 6 inch was then used to estimate the rate of percolation.

The percolation holes were excavated on November 5, 2020. The in-situ percolation testing was conducted on the following day, November 6, 2020.

The sand layer was found to be relatively permeable. The time required to drop the water level from 5 inch to 6 inch in Perc-1 was 13 minutes. This translates to a percolation rate of 4.5 inches per hour.

It is noted that the above given rates have no factor of safety. The project Civil Engineer should apply an appropriate factor of safety.

Based on the results of the percolation testing, a horizontal drain system (trench) may be used for the Standard Urban Storm water Mitigation Plan, to control surface runoff and channel part of the runoff back into local aquifers. From the Los Angeles County, Department of Public Health, A Professional Guild to Requirements and Procedures for On-site Wastewater Treatment Systems (OWTS), gravel, stone, or similar materials that are used for filtration purposed must be thoroughly washed free of fines. A single trench may not exceed 100 feet in length.

Total depth of the trench, from ground level to the bottom of the hole, may not exceed 5 feet. At the bottom of the trench, a 6 inch layer of sand will have a perforated

riser extending to the surface level. To reduce the chances of siltation, a filter fabric can be installed between the native soils and the granular materials within the trench.

The system should be designed so that any excess water not infiltrated into the subsoil would be diverted into the planter areas first and then to the street (after going through the required filtration process).

OBSERVATION DURING CONSTRUCTION

The presented recommendations in this report assume that all foundations will be established in properly compacted fill soils. All footing excavations should be observed and accepted by a representative of this office before reinforcing is placed.

Site grading work should be conducted under observation and testing by a representative of this firm. For proper scheduling, please notify this office at least 24 hours before any observation work is required.

CLOSURE

The findings and recommendations presented in this report were based on the results of our field and laboratory investigations combined with professional engineering experience and judgment. The report was prepared in accordance with generally accepted engineering principles and practice. We make no other warranty, either express or implied.

It is noted that the conclusions and recommendations presented are based on exploration "window" borings and excavations which is in conformance with accepted engineering practice. Some variations of subsurface conditions are common between "windows" and major variations are possible.

-oOo-

The following Figures and Appendices are attached and complete this report:

- Drawing No. 1 - Site Plan
- Figure No. 1 - Site Vicinity Map
- Figure No. 2 - Regional Topographic Map
- Figure No. 3 - Regional Geologic Map
- Figure No. 4 - Historically Highest Groundwater Contour Map.
- Appendix I-Method of Field Exploration
 - Log of Borings Figure Nos. 1-1 through I-5
 - Unified Soil Classification System Figure No. I-6
- Appendix II- Methods of Laboratory Testing
 - Figure Nos. II-1 and II-2

Respectfully submitted,

Applied Earth Sciences



Fereidoun "Fred" Jahani
Project Engineer
RE62875



Caro J. Minas, President
Geotechnical Engineer
GE 601



FJ/CJM/se

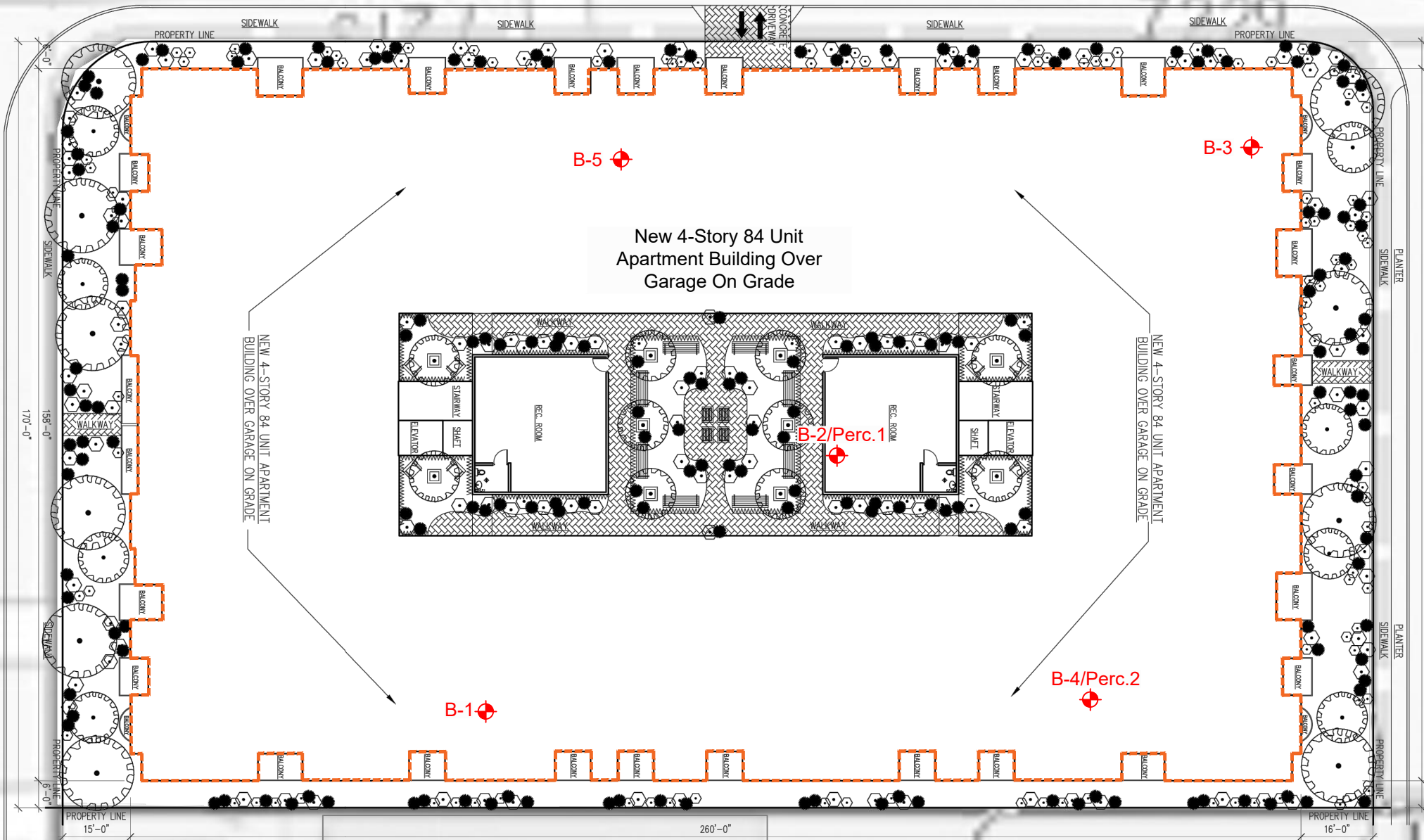
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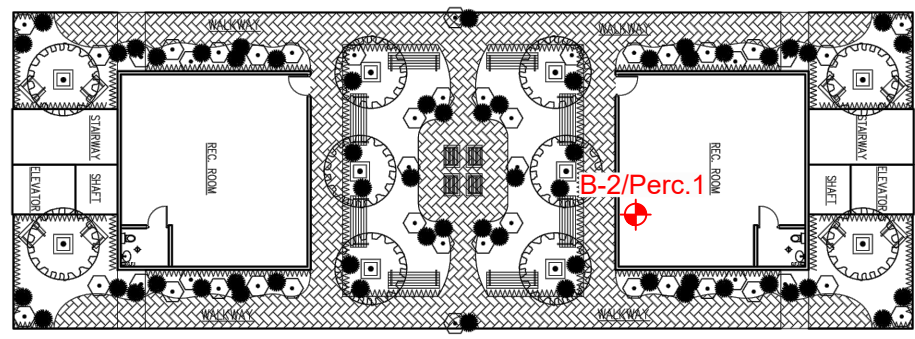
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16955-16949 W. SHERMAN WAY

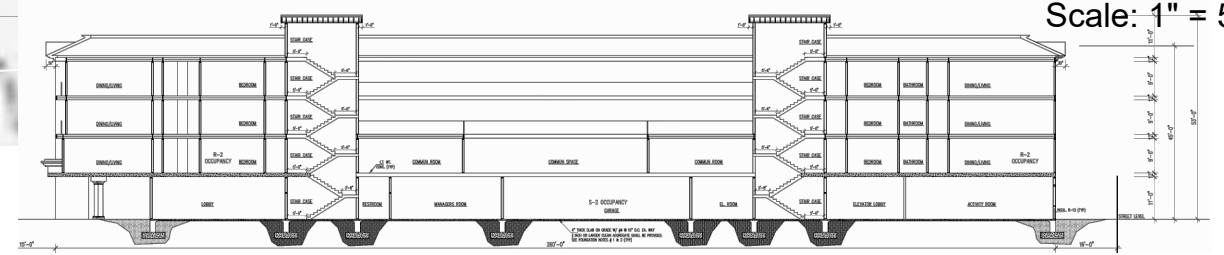
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CANTLAY ST.



Existing Building
16945 Sherman Way



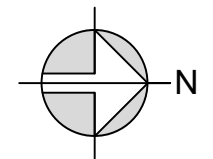
Scale: 1" = 50'

LEGEND:

B-5 = Location & Number of Boring

Note:

Site plan prepared by using plan provided by:
 -Art Construction Services
 -Topographic Lines outside subject property are based on Navigate LA Map.



Scale: 1" = 30'

SITE PLAN

DESCRIPTION: Proposed Apartment Building Project
 FOR: Lion Signature, Inc.
 ADDRESS: 16949-16955 West Sherman Way, Los Angeles, CA 91406



Applied Earth Sciences
 GEOTECHNICAL . GEOLOGY . ENVIRONMENTAL
 ENGINEERING CONSULTANTS

www.aessoil.com
 (818) 552-6000

PROJECT No:		20-647-02
DATE:	12 / 03 / 2020	
DRAWN BY:	TG	
CHECKED BY:	CM	
DRAWING No:	1	




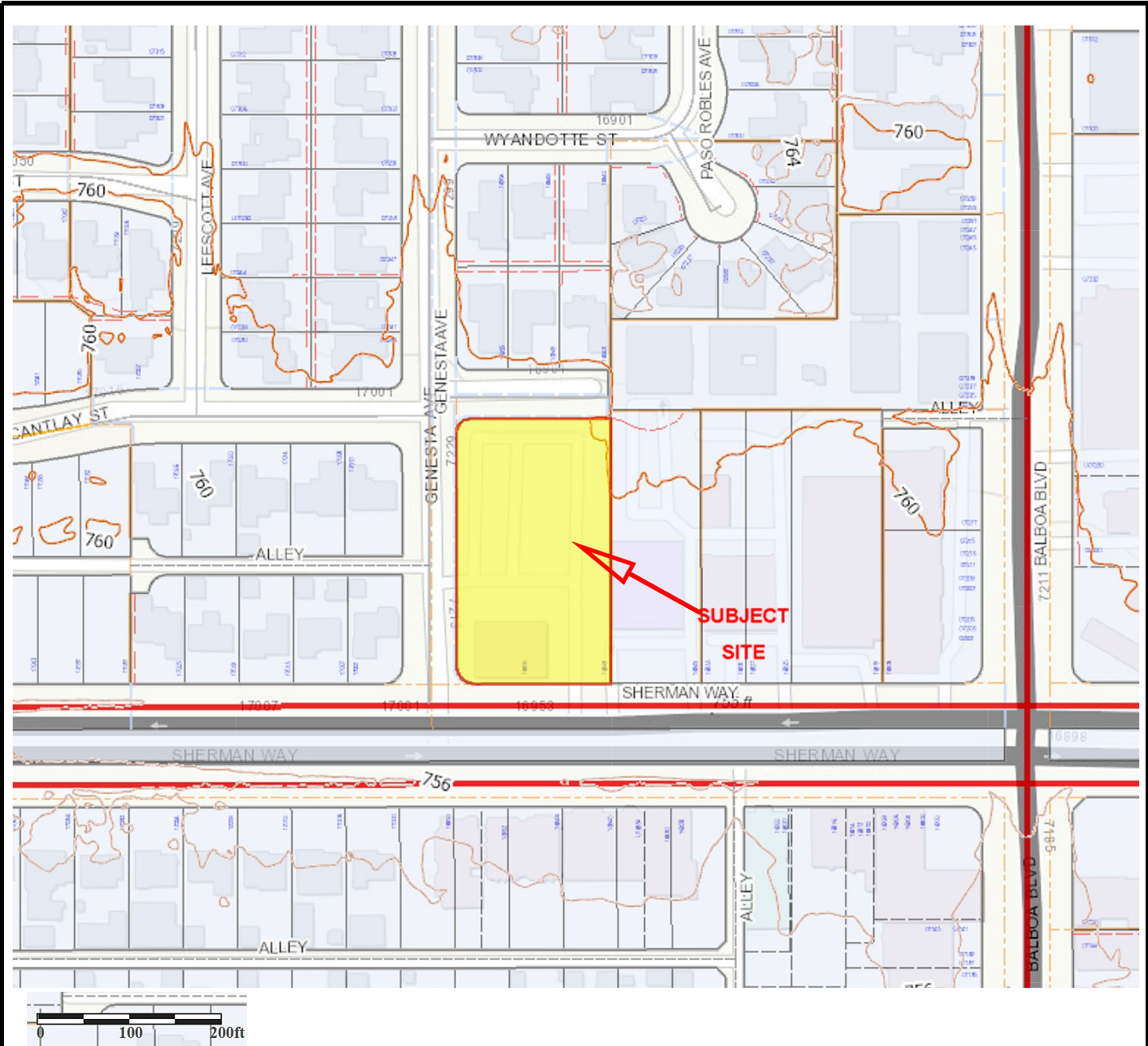
Reference: Portion of Google Maps

SITE VICINITY MAP

Proposed Apartment Building Project

16949-16955 W. Sherman Way, Los Angeles, CA 91406

FOR	Lion Signature, Inc.	DATE	12 / 03 / 2020	PROJECT No.	20-647-02
 APPLIED EARTH SCIENCES GEOTECHNICAL . GEOLOGY . ENVIRONMENTAL ENGINEERING CONSULTANTS				FIGURE No.	1



Reference: Navigate LA Map

REGIONAL TOPOGRAPHIC MAP

Proposed Apartment Building Project

16949-16955 W. Sherman Way, Los Angeles, CA 91406

FOR

Lion Signature, Inc.

DATE

12 / 03 / 2020

PROJECT No.

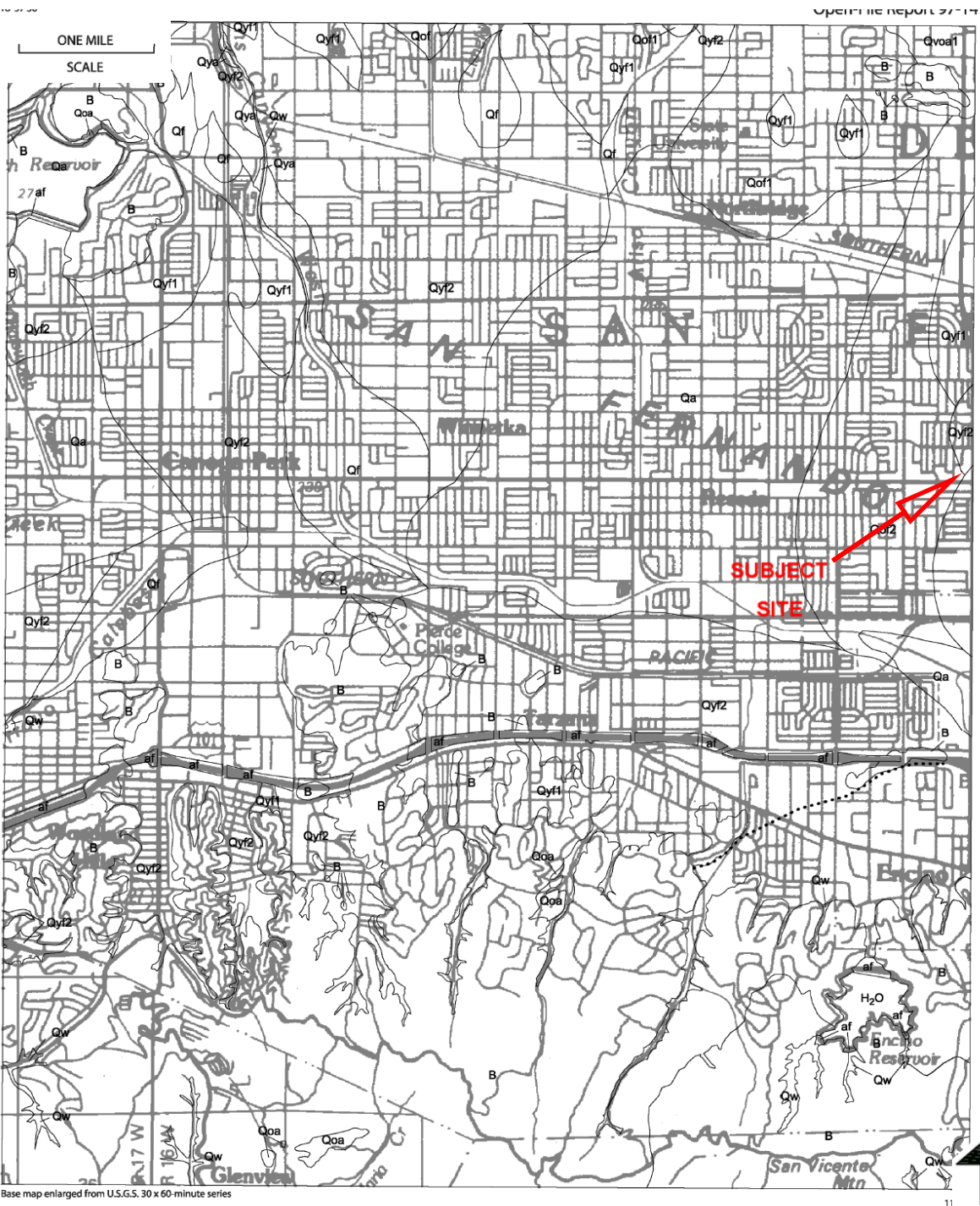
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FIGURE No.

2



Base map enlarged from U.S.G.S. 30 x 60-minute series


11

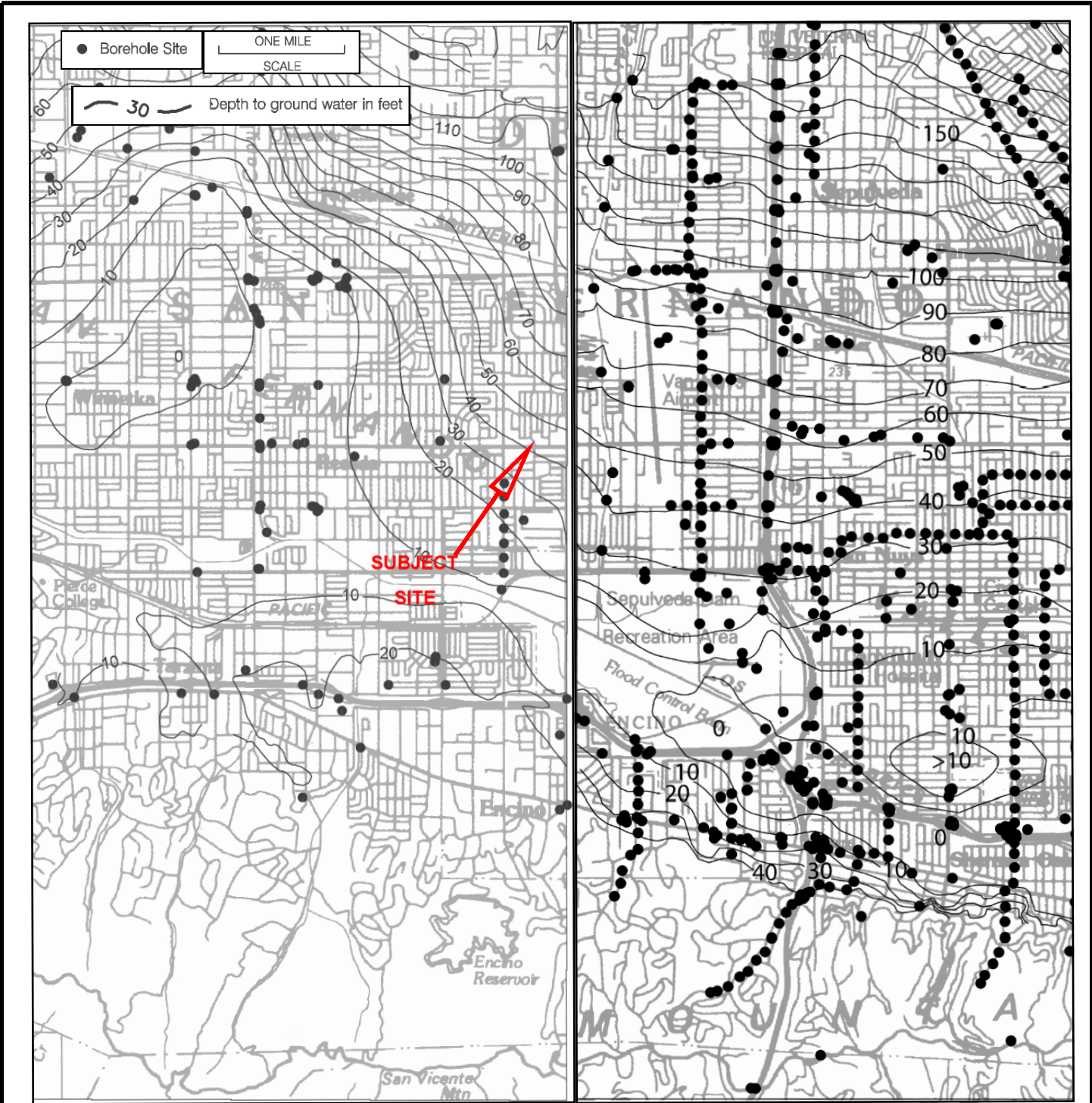
Reference: USGS 30x60 Minute Canoga Park Quadrangle

REGIONAL GEOLOGIC MAP

Proposed Apartment Building Project

16949-16955 W. Sherman Way, Los Angeles, CA 91406

<p>FOR Lion Signature, Inc.</p>	<p>DATE 12 / 03 / 2020</p>	<p>PROJECT No. 20-647-02</p>
<p> APPLIED EARTH SCIENCES GEOTECHNICAL . GEOLOGY . ENVIRONMENTAL ENGINEERING CONSULTANTS</p>	<p>FIGURE No. 3</p>	




Reference: Canoga Park & Van Nuys 7.5 Minute Quadrangle

HISTORICALLY HIGHEST GROUNDWATER (Contour Map)

Proposed Apartment Building Project

16949-16955 W. Sherman Way, Los Angeles, CA 91406

FOR	Lion Signature, Inc.	DATE	12 / 03 / 2020	PROJECT No.	20-647-02
 APPLIED EARTH SCIENCES GEOTECHNICAL . GEOLOGY . ENVIRONMENTAL ENGINEERING CONSULTANTS				FIGURE No.	4

APPENDIX I

METHOD OF FIELD EXPLORATION

In order to define subsurface conditions five borings were drilled at the site. The approximate locations of the borings with respect to the existing building are shown on the enclosed Site Plan. The borings were drilled with a conventional truck mounted hollow stem drilling machine.

Logs of the subsurface materials, as encountered in the borings, were recorded in the field and are presented Figure Nos. I-1 through I-5 within Appendix I. These figures also show the number and approximate depths of each of the recovered soil samples.

Relatively undisturbed samples of the subsoil were obtained by driving a steel sampler with successive drops of a 140-pound standard sampling hammer free-falling a vertical distance of about 30 inches. The number of blows required for one foot of sampler penetration was recorded at the time of drilling and are shown on the log of exploratory borings. The relatively undisturbed soil samples were retained in brass liner rings 2.5 inches in diameter and 1.0 inch in height.

Field investigation for this project was performed on November 5, 2020. The materials excavated from the test borings were placed back and compacted upon completion of the field work. Such materials may settle. The owner should periodically inspect these areas and notify this office if the settlements create a hazard to person or property.



LOG OF BORING NO.1

20-647-02
16949-16955 W. Sherman Way, Los Angeles, CA 91406

Type: Hollow Stem Auger, With 140 Lb Hammer Logged by: Daniel
Location: *See Site Plan*

DEPTH, FT	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SPT BLOWS/FT	BLOWS PER FT	% Moisture	UNIT DRY WT LB/CU FT	% -200 - Δ % Moisture - \bullet 20 40 60 80	% -200
0			(SM) FILL: Sand, moderately compact, slightly moist, brown, silty sand.						
			(SM) SAND: Loose, slightly moist to moist, brown, silty fine grained sand.		7	13	103		
5			(SP-SM) Grades to loose to medium dense, moist, medium brown to yellowish brown, less sity, slightly gravelly.		10	9	111		
10			(SM) Grades to medium dense, brown, less gravelly.		13	15	104		
15			(ML) SILT: Soft to firm, moist, light yellowish brown, sandy silt.		10	22	92		
20			(ML) Grades to firm, slightly more sandy.		12	24	98		
25			(SP) SAND: Dense, dry, light brown, fine to coarse grained sand with fine gravel, little to no silt.		36	2	115		
30			End of Boring @ 26' No Groundwater Encountered Hole Backfilled.						
35									

COMPLETION DEPTH: 26
DATE: November 5, 2020

DEPTH TO WATER> INITIAL:
FINAL:



LOG OF BORING NO.2

20-647-02
16949-16955 W. Sherman Way, Los Angeles, CA 91406

Type: Hollow Stem Auger, With 140 Lb Hammer Logged by: Daniel
Location: *See Site Plan*

DEPTH, FT	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SPT BLOWS/FT	BLOWS PER FT	% Moisture	UNIT DRY WT LB/CU FT	% -200 - Δ % Moisture - \bullet 20 40 60 80				% -200
0			(SM) FILL: Sand, moderately compact, dry to slightly moist, light brown, silty sand.									
			(SM) SAND: Loose, slightly moist, light brown, silty fine grained sand.		9	7	97					
5			(SP-SM) Grades to medium dense, yellowish brown, slightly silty fine grained sand with fine gravel.		10	7	104					
10			(SP-SM) Grades to slightly less silty.		10	7	97					
15			(SP) Grades to dense, dry, fine to medium grained sand with fine gravel, little to no silt.		25	3	118					
20			(SP) Grades to slightly less gravelly.		20	4	113					
25			(SP) Grades to dense to very dense, tan brown, fine to coarse grained sand with gravel.		42	3	116					
30			End of Boring @ 26' No Groundwater Encountered Percolation Installed @ 5'-2'.									
35												

COMPLETION DEPTH: 26
DATE: November 5, 2020

DEPTH TO WATER> INITIAL:
FINAL:



LOG OF BORING NO.3

20-647-02
16949-16955 W. Sherman Way, Los Angeles, CA 91406

Type: Hollow Stem Auger, With 140 Lb Hammer Logged by: Daniel
Location: *See Site Plan*

DEPTH, FT	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SPT BLOWS/FT	BLOWS PER FT	% Moisture	UNIT DRY WT LB/CU FT	% -200 - Δ				% -200		
								% Moisture - ●	20	40	60		80	
0			(SM) FILL: Sand, moderately compact, dry to slightly moist, light brown, silty sand.											
			(SM) SAND: Medium dense, slightly moist, light brown, silty fine grained sand.		12	10	101							
5			(SP-SM) Grades to dry, yellowish brown, less silty.		15	4	104							
10			(SM) Grades to slightly more silty.		13	8	98							
15			(SP-SM) Grades to slightly silty fine to medium grained sand.		13	8	103							
20			(SP) Grades to dense, light brown, fine to coarse grained sand with gravel, little to no silt.		25	2	110							
25			(SP) Grades to very dense, fine to medium grained sand with gravel.		66	2	121							
30			End of Boring @ 26' No Groundwater Encountered Hole Backfilled.											
35														

COMPLETION DEPTH: 26
DATE: November 5, 2020

DEPTH TO WATER> INITIAL:
FINAL:



LOG OF BORING NO.4

20-647-02
16949-16955 W. Sherman Way, Los Angeles, CA 91406

Type: Hollow Stem Auger, With 140 Lb Hammer Logged by: Daniel
Location: *See Site Plan*

DEPTH, FT	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SPT BLOWS/FT	BLOWS PER FT	% Moisture	UNIT DRY WT LB/CU FT	% -200 - Δ % Moisture - \bullet 20 40 60 80				% -200		
0			(SM) FILL: Sand, moderately compact, slightly moist, brown, silty sand.											
			(SM) SAND: Loose to medium dense, slightly moist, brown, silty fine grained sand.		10	11	102							
5			(SP-SM) Grades to medium dense, medium brown, less silty.		10	7	102							
10			(SM) Grades to silty fine grained sand.		11	10	108							
15			(ML) SILT: Firm, moist, yellowish brown, sandy silt.		16	27	92							
20			End of Boring @ 16' No Groundwater Encountered Percolation Installed @ 5'-2'.											
25														
30														
35														

COMPLETION DEPTH: 16
DATE: November 5, 2020

DEPTH TO WATER> INITIAL:
FINAL:



LOG OF BORING NO.5

20-647-02
 16949-16955 W. Sherman Way, Los Angeles, CA 91406

Type: Hollow Stem Auger, With 140 Lb Hammer Logged by: Daniel
 Location: *See Site Plan*

DEPTH, FT	SYMBOL	SAMPLES	DESCRIPTION OF MATERIAL	SPT BLOWS/FT	BLOWS PER FT	% Moisture	UNIT DRY WT LB/CU FT	% -200 - Δ				% -200		
								% Moisture - ●	20	40	60		80	
0			(SM) FILL: Sand, moderatley compact, slightly moist, brown, silty sand.											
			(SM) SAND: Loose, slightly moist, light brown, silty fine grained sand.		6	12	98							
5			(SP-SM) Grades to medium dense, yellowish brown, less silty.		12	6	104							
10			(SM) Grades to medium brown, more silty.		11	9	106							
15			(SP-SM) Grades to yellowish brown, slightly silty fine grained sand.		13	5	106							
20			End of Boring @ 16' No Groundwater Encountered Hole Backfilled.											
25														
30														
35														

COMPLETION DEPTH: 16
 DATE: November 5, 2020

DEPTH TO WATER> INITIAL:
 FINAL:

MAJOR DIVISIONS			GROUP SYMBOLS	TYPICAL NAME
COARSE GRAINED SOILS (More than 50% of material is LARGER than No. 200 sieve size)	GRAVELS (More than 50% of coarse fraction is LARGER than the No. 4 sieve size)	CLEAN GRAVELS (Little or no fines)	GW	Well graded gravels, gravel - sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amt. of fines)	GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
			GM	Silty gravels, gravel-sand-silt mixtures.
			GC	Clayey gravels, gravel-sand-clay mixtures.
	SANDS (More than 50% of coarse fraction is SMALLER than the No. 4 sieve size)	CLEAN SANDS (Little or no fines)	SW	Well graded sands, gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amt. of fines)	SP	Poorly graded sands or gravelly sands, little or no fines.
			SM	Silty sands, sand-silt mixtures.
			SC	Clayey sands, sand-clay mixtures.
			ML	Organic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		FINE GRAINED SOILS (More than 50% of material is SMALLER than No. 200 sieve size)	SILTS AND CLAYS (Liquid limit LESS than 50)	CL
OL	Organic silts and organic silty clays of low plasticity.			
MH	Organic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.			
SILTS AND CLAYS (Liquid limit GREATER than 50)	CH		Organic clays of high plasticity, fat clays.	
	OH		Organic clays of medium to high plasticity, organic silts.	
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

BOUNDARY CLASSIFICATIONS: Soils possessing characteristics of two groups are designated by combinations of group symbols.

PARTICLE SIZE LIMITS

SILT OR CLAY	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		
	NO. 200	NO. 40	NO. 10	NO. 4	3/4 in.	3 in.	(12 in.)

U. S. STANDARD SIEVE SIZE

UNIFIED SOIL CLASSIFICATION SYSTEM

Propose New Apartment Building Project JOB NAME : 16949-16955 West Sherman Way Los Angeles, CA 91406	JOB No. 20-647-02
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FIGURE No.

1-6

APPENDIX II

LABORATORY TESTING PROCEDURES

Moisture Density

The moisture-density information provides a summary of soil consistency for each stratum and can also provide a correlation between soils found on this site and other nearby sites. The tests were performed using ASTM D 2216-04 Laboratory Determination of water content Test Method. The dry unit weight and field moisture content were determined for each undisturbed sample, and the results are shown on log of exploratory borings.

Shear Tests

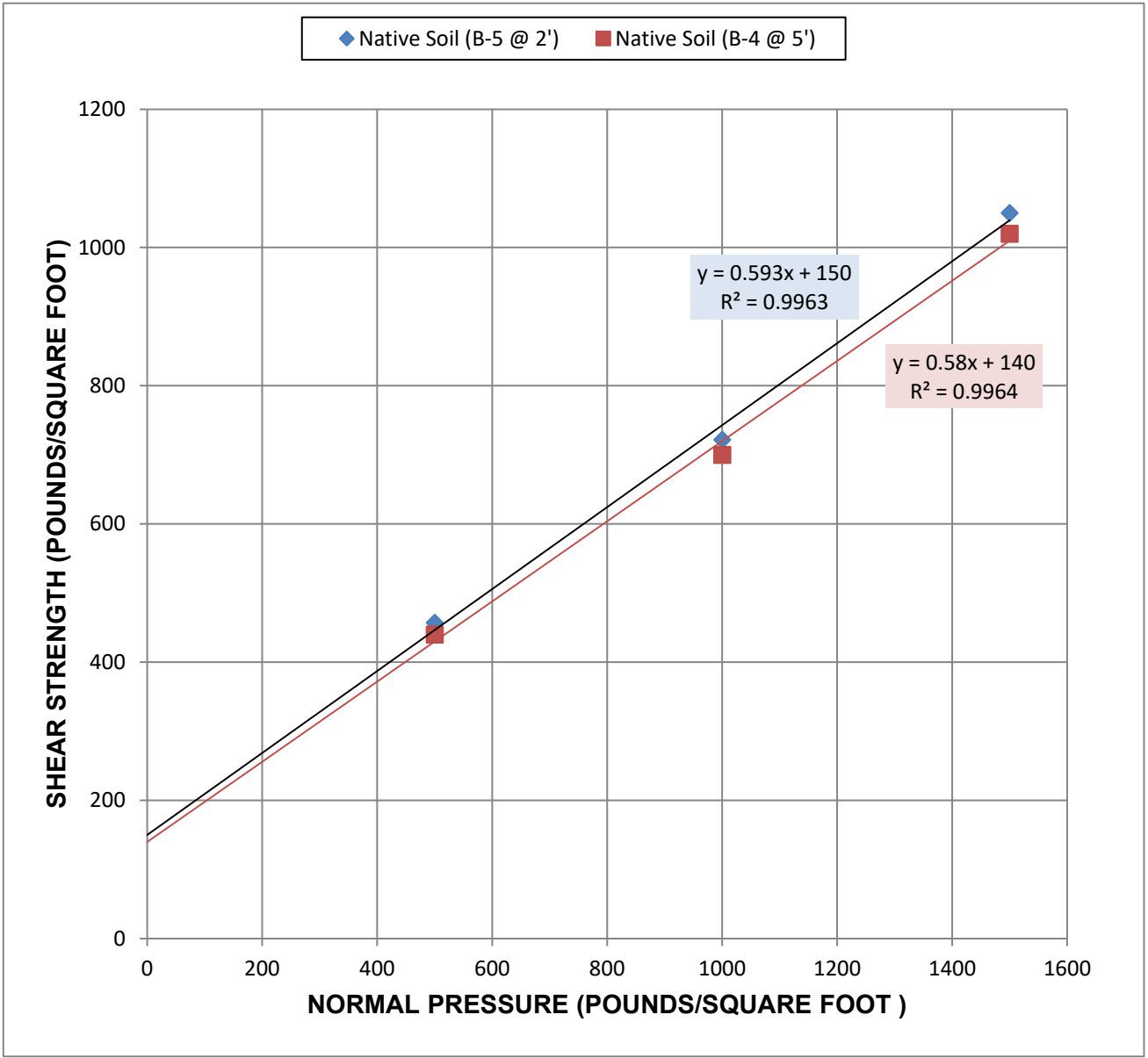
Shear tests were made with a direct shear machine at a constant rate of strain. The machine is designed to test the materials without completely removing the samples from the brass rings. The rate of shear was determined through determination of the rate of consolidation of the foundation bearing materials.

A range of normal stresses was applied vertically, and the shear strength was progressively determined at each load in order to determine the internal angle of friction and the cohesion. The tests were performed using ASTM D 3080-04 Laboratory Direct Shear Test Method. The Ultimate shear strength results of direct shear tests are presented on Figure No. II-1 within this Appendix.

Consolidation

The apparatus used for the consolidation tests is designed to receive the undisturbed brass ring of soil as it comes from the field. Loads were applied to the test specimen in several increments, and the resulting deformations were recorded at time intervals. Porous stones were placed in contact with the top and bottom of the specimen to permit the ready addition or release of water. ASTM D 2435-04 Laboratory Consolidation Test Method.

Undisturbed specimens were tested at the field and added water conditions. The test results are shown on Figure No. II-2 within this Appendix.



Description	Cohesion (C) (psf)	Friction Angle (ϕ) (Deg.)	Dry Density (PCF)	Saturated Moisture (%)
Native Soil (B-5 @ 2')	150	31	102	20
Native Soil (B-4 @ 5')	140	30	100	21

DIRECT SHEAR TEST

SATURATED CONDITION

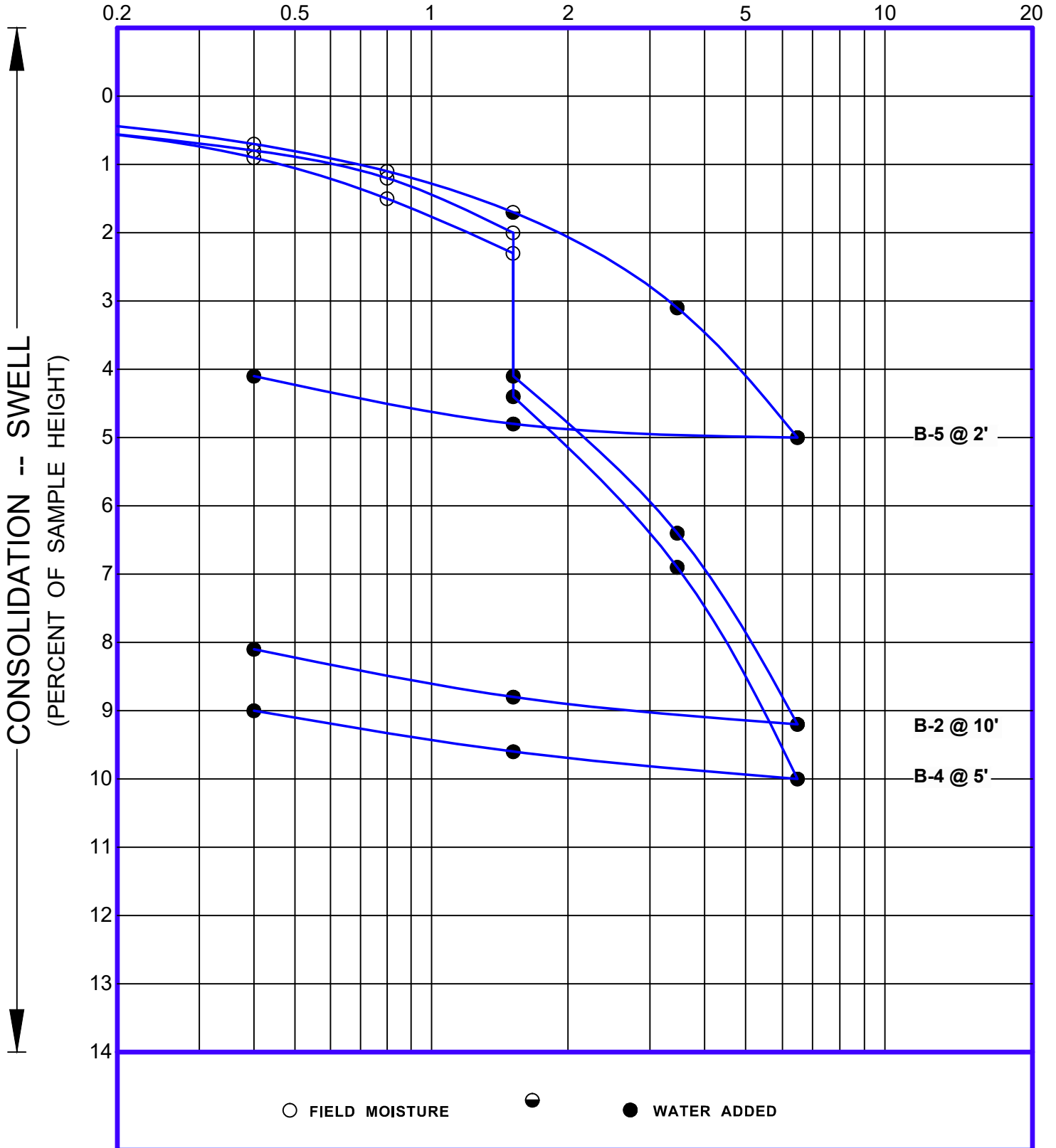
FOR: 1694 -16955 W. Sherman Way **DATE:** 12/03/2020 **PROJECT NO.:** 20-647-02



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FIGURE NO. II-1

PRESSURE IN KIPS PER SQUARE FOOT



SWELL - CONSOLIDATION TESTS

Propose New Apartment Building Project
JOB NAME : 16949-16955 West Sherman Way,
 Los Angeles, CA 91406

JOB No.
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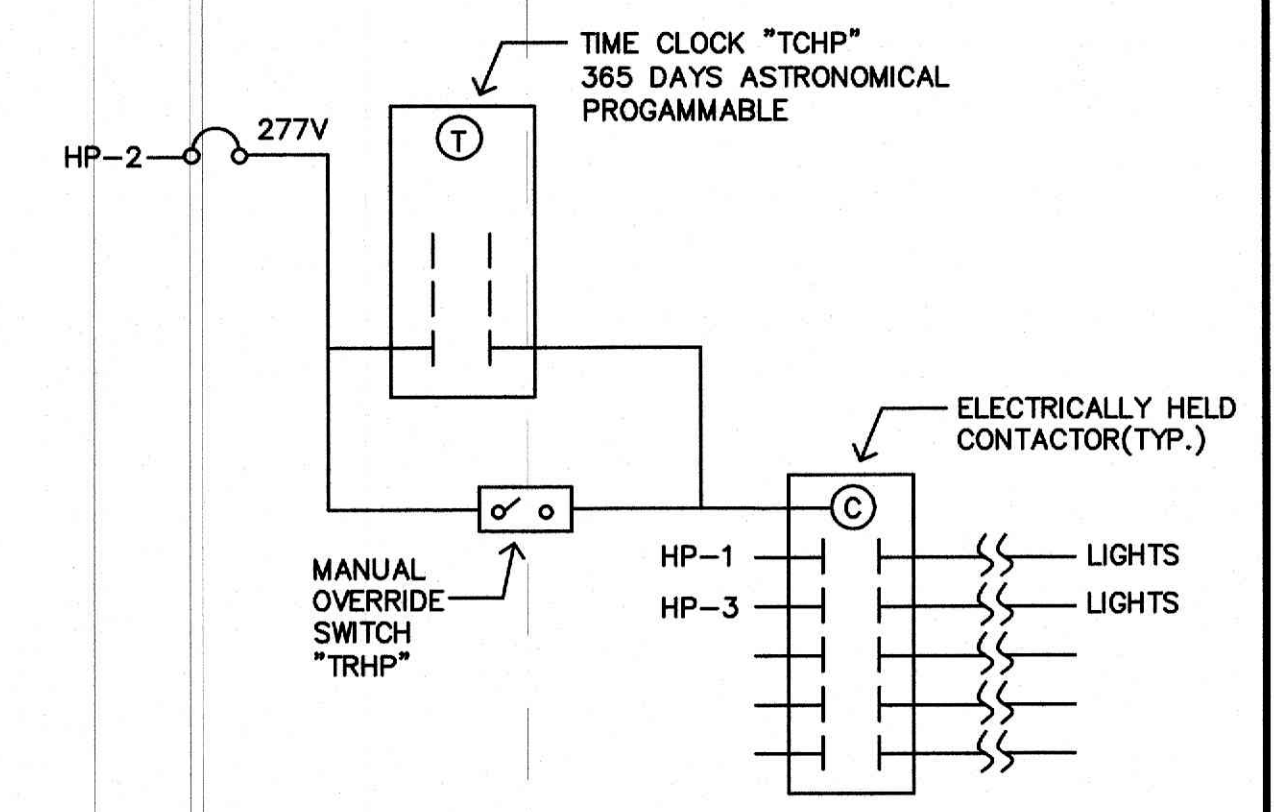
FIGURE No.

II - 2

PERFECT DESIGN & INVESTMENT, INC.
 Design & Consulting
 Electrical, Fire Sprinkler System,
 Mechanical, Title 24 Energy Calculation
 2416 W. Valley Blvd.
 Alhambra, CA 91803
 E-Mail: PERFECTDESIGN@GMAIL.COM
 Tel: (626) 299-8000
 Fax: (626) 299-4913

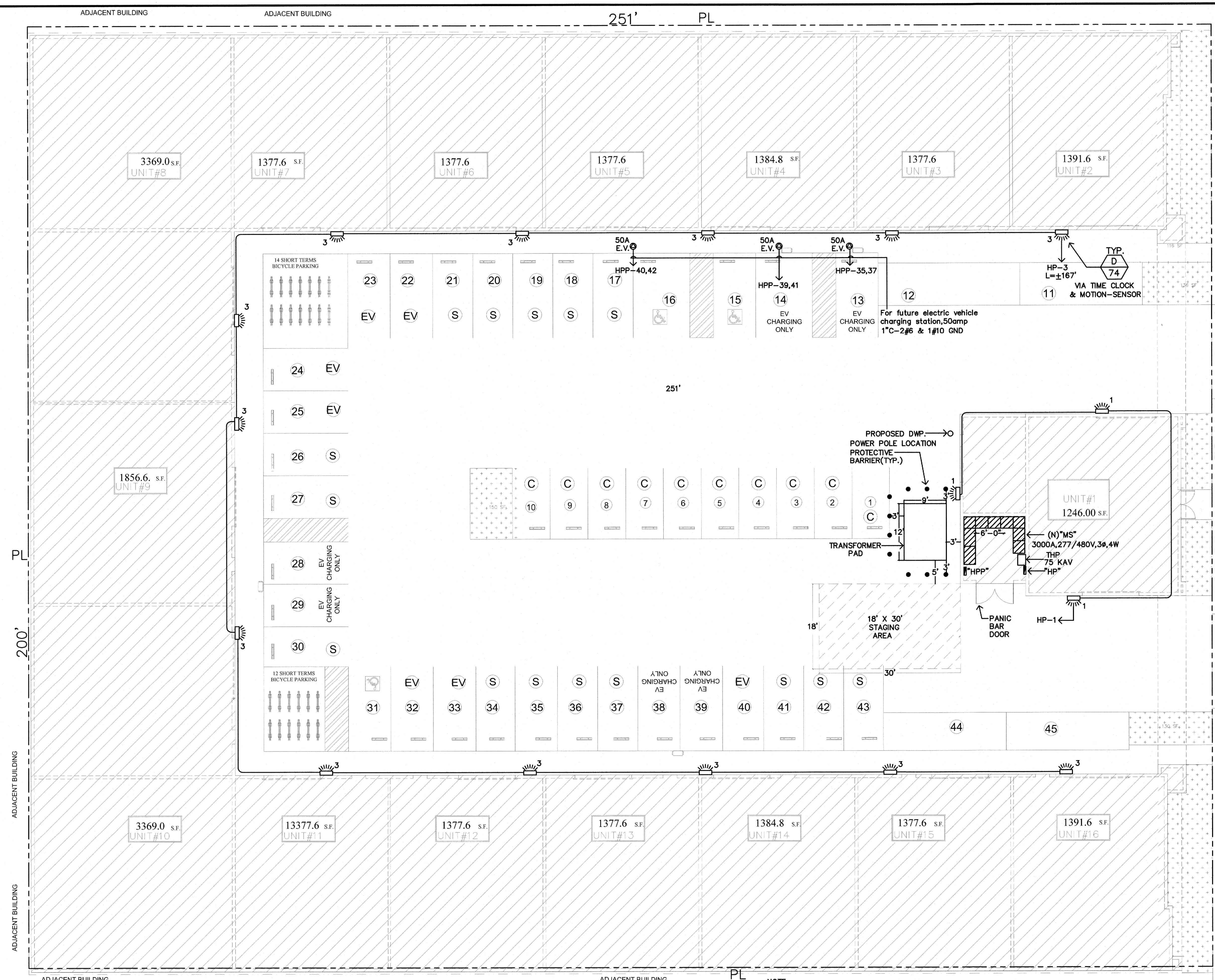
AUTO REPAIR AND WORK SHOPS
 7443 N. VARNA AVE.
 NORTH HOLLYWOOD, CA 91605

Date 09-02-21
 Scale
 Drawn E.C.
 Job # H21-235
 Sheet
E-2
 Of Sheets



EXTERIOR LIGHTING CONTROLS
 -THE TIME CLOCK & OVERRIDE SWITCH SHALL BE CEC CERTIFIED.
 -THE TIME CLOCK SHALL PROVIDE 365 DAYS, ADVANCE HOLIDAY, ASTRONOMICAL PROGRAMMABLE SHUT OFF SWITCH AND 0-2 HOURS MAXIMUM OVERRIDE SWITCH.

VARNA AVE.



SITE PLAN
 3/32"=1'-0"

NOTE:
 1. W : WET LOCATION RECEPTACLE.
 (GFCI / WEATHER PROOF/ WEATER RESISTANT / EXTRA DUTY.)
 2. ALL EXTERIOR SWITCHBOARD & PANELS SHALL BE NEMA 3R.

LIGHTING FIXTURE SCHEDULE												
VOLT	SYMBOL	TYPE	MOUNTING			LAMPS		LOAD	MANUFACTURER	CATALOG NO.	FINISH & REMARKS	
			RECESSED	SWA	WALL	PL	NUM					WATT
277		D 74	X			1	74	LED	74	LITHONIA LIGHTING	DSXW1-LED-20C-1000	WET LOCATION



June 12, 2023
Shermanway-1-01

Lion Signature, INC
100 Franklin Court,
Glendale Ca 91205

**Subject: CHANGE OF ENGINEER OF RECORD FOR
GEOTECHNICAL INVESTIGATION**
Proposed Apartment Building
Lot LT 1 Of Tract No. 28401
16949-16955 West Sherman Way
Los Angeles, California 91406

GeoBoden, Inc. (Geoboden) has prepared this letter report for Change of Engineer of Record and to update geotechnical recommendations for the proposed Apartment Building to be constructed at the subject site. Applied Earth Sciences (AES) prepared the original referenced geotechnical investigation report. Currently subterranean levels are proposed for construction. Excavations up to 23 feet are planned for construction. Based on information provided in borings drilled by AES, competent soils with high blow counts are encountered at approximate depth 25 feet.

TRANSFER OF RESPONSIBILITY

GeoBoden has reviewed the report of soils investigation prepared by AES (Reference) for the subject project, and we are in general concurrence with the findings, conclusions and recommendations presented therein except as modified herein. Geoboden accepts responsibility for the field and laboratory data as the new Engineer of Record. As of the date of this report, GeoBoden will act as geotechnical consultant of record for all future work within our purview to be performed within the subject site. This report supersedes the recommendations given in the previous report prepared by AES and includes recommendations based on the 2023 Los Angeles City Code and based on the current configuration of the proposed project. The project plans are attached for reference.

UPDATED GEOTECHNICAL DESIGN RECOMMENDATIONS

SHALLOW FOUNDATIONS

Following the site and foundation preparation recommended above, foundation for load bearing walls and interior columns may be designed as discussed below.

Bearing Capacity and Settlement

Load bearing walls and interior columns may be supported on continuous spread footings and isolated spread footings, respectively, and should bear entirely upon properly engineered fill or competent native soils. Continuous and isolated footings should have a minimum width of 18 inches and 24 inches, respectively. All footings should be embedded a minimum depth of 24 inches measured from the lowest adjacent finish grade. Continuous and isolated footings placed on such materials may be designed using an allowable (net) bearing capacity of 3,000 pounds per square foot (psf) respectively. Allowable increases of 500 psf for each additional 1 foot in width and 500 psf for each additional 6 inches in depth may be utilized, if desired. The maximum allowable bearing pressure should be 8,000 psf. The maximum bearing value applies to combined dead and sustained live loads. The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces. Bearing capacity calculations are attached for reference.

Based on the allowable bearing value recommended above, total settlement of the shallow footings are anticipated to be less than one inch. Differential settlement is anticipated to be approximately half the total settlement for similarly loaded footings spaced up to approximately 30 feet apart.

Lateral Load Resistance

Lateral load resistance for the spread footings will be developed by passive soil pressure against sides of footings below grade and by friction acting at the base of the concrete footings bearing on compacted fill. An allowable passive pressure of 350 psf per foot of depth may be used for design purposes. An allowable coefficient of friction 0.35 may be used for dead and sustained live load forces to compute the frictional resistance of the footings constructed directly on compacted fill. Safety factors of 2.0 and 1.5 have been incorporated in development of allowable passive and frictional resistance values, respectively. Under seismic and wind loading conditions, the passive pressure and frictional resistance may be increased by one-third.

Footing Reinforcement

Reinforcement for footings should be designed by the structural engineer based on the anticipated loading conditions. Footings for structures that are supported in low expansive soils should have No. 4 bars, two top and two bottom.

SEISMIC DESIGN PARAMETERS

To accommodate effects of ground shaking produced by regional seismic events, seismic design can, at the discretion of the designing Structural Engineer, be performed in accordance with the 2019 edition of the California Building Code (CBC). Table below, 2019 CBC Seismic Parameters, lists (next) seismic design parameters based on the 2019 CBC methodology, which is based on ASCE/SEI 7-16:

2019 CBC Seismic Design Parameters	Value
Site Latitude (decimal degrees)	34.2017
Site Longitude (decimal degrees)	-118.5030
Site Class Definition	D
Mapped Spectral Response Acceleration at 0.2s Period, S_s	2.005
Mapped Spectral Response Acceleration at 1s Period, S_1	0.695
Short Period Site Coefficient at 0.2s Period, F_a	1.0
Long Period Site Coefficient at 1s Period, F_v	1.7
Adjusted Spectral Response Acceleration at 0.2s Period, S_{MS}	2.005
Adjusted Spectral Response Acceleration at 1s Period, S_{M1}	1.182
Design Spectral Response Acceleration at 0.2s Period, S_{DS}	1.337
Design Spectral Response Acceleration at 1s Period, S_{D1}	0.788

RETAINING WALLS AND WALLS BELOW GRADE

Lateral Earth Pressure

For design of cantilevered retaining walls, where the surface of the backfill is level, it may be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 35 pounds per cubic foot. In addition to the recommended earth pressure, the walls should be designed to resist any applicable surcharges due to storage or traffic loads.

For the design of braced basement walls, it may be assumed that drained soils will exert a lateral pressure equal to that developed by a fluid with a density of 65 pounds per cubic foot. In addition to the recommended earth pressure, the wall would be designed to resist any applicable surcharges due to foundation, storage, or traffic loads.

In addition to the recommended earth pressure, retaining walls adjacent to areas subject to vehicular traffic should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the walls due to normal vehicular traffic. If the traffic is kept back at least 10 feet from the walls, the traffic surcharge may be neglected. Also, lateral surcharge pressures from existing building foundations should be added to the above recommend lateral pressure.

Seismic Lateral Earth Pressure

We have used $\frac{1}{2}$ of $\frac{2}{3}$ the PG_{AM} in our analysis $(\frac{1}{3}) * 0.916g = 0.305$. Evaluation of lateral earth pressures under static and seismic loading conditions is based on using the Coulomb (1776) and Mononobe-Okabe (1929) Methods for frictional backfill materials with little to zero cohesion. We recommend using combined of static and dynamic active equivalent earth pressure 67 pcf. For walls with a retained height over 6 feet, or where otherwise required by Code or deemed appropriate by the structural engineer, we recommend that the wall designs be checked seismically using an additive seismic Equivalent Fluid Pressure (EFP) of 35 pcf. Such walls that are to be designed in the static case assuming the at-rest condition should be checked seismically using this additive seismic EFP added to the active condition (i.e., the additive seismic EFP is not added to the at-rest EFP). The additive seismic EFP should be applied with a standard EFP pressure distribution (i.e., it is not an inverted triangle).

Drainage

If the building is designed to withstand hydrostatic pressure, then drainage should also be provided behind basement walls to prevent a buildup of hydrostatic pressure due to infiltration of surface water or other incidental water; the drainage material should extend from 4 feet below the adjacent grade down to the bottom of the basement wall. No collection pipe need to be placed at the base of the wall; the drainage material will function by allowing water to move down the

wall to the soil below the design ground-water level. The drainage material may be designed as recommended below.

If the building is not designed to withstand hydrostatic pressure assuming to prevent a buildup of hydrostatic pressure due to infiltration of surface water or other incidental water, then we recommend that a drainage system be placed behind the walls below grade to help dissipate the hydrostatic forces that may develop behind the walls. Where the walls are formed, such a drainage system may consist of a 4-inch-diameter perforated pipe placed with the perforations down and surrounded by at least 4 inches of granular filter gravel. The pipe should be sloped at least 2 inches in 100 feet. The granular filter material should be separated from the adjacent soils by a filter fabric. The perforated pipes should be placed at the bases of the walls below grade. In addition, a foot wide strip of granular filter material, or continuous Miradrain collector panels should be placed behind each wall. The strip of granular filter material or the Miradrain (Miradrain 6000 or equivalent) panels should extend to the drainage system, and should be terminated at 4 feet below the ground surface.

If the walls are not formed and are shotcreted, the drainage system may consist of continuous Miradrain (Miradrain 6000 or equivalent) panels placed at a depth starting at about 4 feet below the existing grade. The Miradrain panels should be connected to weep holes at the bottom of the excavation. The weep holes should consist of solid pipes that are spaced at about 8 to 10 feet on centers. At the connection of the weep holes and the Miradrain, the weep holes should be embedded into a 1 cubic foot pocket of granular filter material placed into the face of the excavation. The granular filter material should be surrounded by a filter fabric. The weep holes should drain into a solid pipe placed beneath the edges of the floor slab. The pipe may drain into a sump-pump system that drains into the nearest storm drain. The filter gravel should meet the requirements of Class 2 Permeable Material as defined in the current State of California, Department of Transportation, Standard Specifications. If Class 2 Permeable Material is not available, $\frac{3}{4}$ -inch crushed rock or gravel separated from the on-site by an appropriate filter fabric can be used. The crushed rock or gravel should have less than 5% passing a No. 200 sieve.

Proposed Apartment Building

June 12, 2023

Page 6

The installed drainage system should be observed by personnel from our firm prior to being backfilled. Inspection of the drainage system may also be required by the reviewing governmental agencies.

The walls below grade should be waterproofed.

SHORING

General

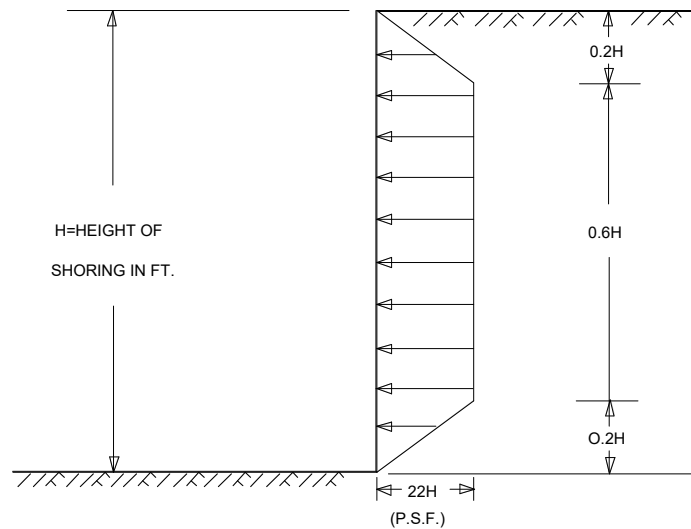
Where there is not sufficient space for sloped embankments, shoring will be required. One method of shoring would consist of steel soldier piles placed in drilled holes, backfilled with concrete, and tied back with earth anchors. Some difficulty may be encountered in the drilling of the soldier piles and the anchors because of caving in the sandy deposits. Special techniques, such as the use of steel shell casing and/or drilling mud, may be necessary to permit the installation of the soldier piles and/or tie-back anchors. In addition, if there is not sufficient space to install the tie-back anchors to the desired lengths on any side of the excavation, the soldier piles of the shoring system may require internal bracing.

The following information on the design and installation of the shoring is based on the information available at this time. We can furnish any additional required data as the design progresses, if authorized. Also, we suggest that our firm review the final shoring plans and specifications prior to bidding or negotiating with a shoring contractor.

Lateral Pressures

For design of cantilevered shoring, a triangular distribution of lateral earth pressure may be used. It may be assumed that the retained soils with a level surface behind the cantilevered shoring will exert a lateral pressure equal to that developed by a fluid with a density of 35 pounds per cubic foot.

For the design of tied-back or braced shoring, we recommend the use of a trapezoidal distribution of earth pressure. The recommended pressure distribution, for the case where the grade is level behind the shoring, is illustrated in the following diagram with the maximum pressure equal to $22H$ in pounds per square foot, where H is the height of the shoring in feet. Where a combination of sloped embankment and shoring is used, the pressure would be greater and must be determined for each combination.



In addition to the recommended earth pressure, the upper 10 feet of shoring adjacent to the streets and vehicular traffic areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot surcharge behind the shoring due to normal street traffic. If the traffic is kept back at least 10 feet from the shoring, the traffic surcharge may be neglected.

Furthermore, the shoring system adjacent to the existing structures should also be designed to support the lateral surcharge pressures imposed by the adjacent structure foundations. The lateral surcharge pressures imposed by cranes or concrete trucks and other heavy construction equipment placed near the shoring system.

Surcharge coefficients of 0.5 may be used with uniform vertical surcharges for braced shoring lateral earth pressure. At the discretion of project Structural and Shoring Design Engineers, NavFac DM 7.2 equations for point and line load distributions for various surcharge distributions for the buildings and construction equipment in-house may be used.

Design of Soldier Piles

For the design of soldier piles spaced at least two diameters on centers, the allowable lateral bearing value (passive value) of the soils below the level of excavation may be assumed to be 600 pounds per square foot per foot of depth at the excavated surface, up to a maximum of 6,000 pounds per square foot. To develop the full lateral value, provisions should be taken to assure firm contact between the soldier piles and the undisturbed soils. The concrete placed in the

soldier pile excavations may be a lean-mix concrete. However, the concrete used in that portion of the soldier pile, which is below the planned excavated level, should be of sufficient strength to adequately transfer the imposed loads to the surrounding soils and the tributary area of the soldier pile should be limited to the diagonal of the steel beam in the shoring calculations.

The frictional resistance between the soldier piles and the retained earth may be used in resisting the downward component of the anchor load. The coefficient of friction between the soldier piles and the retained earth may be taken as 0.4. This value is based on the assumption that uniform full bearing will be developed between the steel soldier beam and the lean-mix concrete and between the lean-mix concrete and the retained earth. In addition, provided that the portion of the soldier piles below the excavated level is backfilled with structural concrete, the soldier piles below the excavated level may be used to resist downward loads. For resisting the downward loads, the frictional resistance between the concrete soldier piles and the soils below the excavated level may be taken equal to 350 pounds per square foot.

Lagging

Continuous lagging will be required between the soldier piles. The soldier piles and anchors should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be lower due to arching in the soils. We recommend that the lagging be designed for the recommended earth pressure but limited to a maximum value of 400 pounds per square foot. The pressure distribution for the lagging may be assumed to be semi-circular, where the pressure at the soldier pile is 0, and the pressure at the center is 400 pounds per square foot.

Anchor Design

Tie-back friction anchors may be used to resist lateral loads. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn at 35 degrees with the vertical through the bottom of the excavation. The anchors should extend at least 25 feet beyond the potential active wedge and to a greater length if necessary to develop the desired capacities.

The capacities of anchors should be determined by testing of the initial anchors as outlined in a following section. For design purposes, we estimate that drilled friction anchors will develop and

average friction value of 600 pounds per square foot. For post-grouted anchors, it may be estimated that the anchors will develop an average friction of 2,500 pounds per square foot. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. If the anchors are spaced at least 6 feet on centers, no reduction in the capacity of the anchors needs to be considered due to group action.

Anchor Installation

The anchors may be installed at angles of 15 to 40 degrees below the horizontal. Caving of the anchor holes should be anticipated and provisions made to minimize such caving. The anchors should be filled with concrete placed by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. To minimize chances of caving, we suggest that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill may contain a small amount of cement to allow the sand to be placed by pumping. For post-grouted anchors of 8-inch diameter or less, the anchor may be filled with concrete to the surface of the shoring.

Anchor Testing

Our representative should select at least three of the initial anchors for 24-hour 200% tests, and four additional anchors for quick 200% tests. The purpose of the 200% test is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Where satisfactory tests are not achieved on the initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

For post-grouted anchors where concrete is used to backfill the anchor along its entire length, the test load should be computed as that required to develop the appropriate friction along the entire bonded length of the anchor. If the friction assumed in the post-grouted portion, f_p , divided by the friction assumed in the non-post-grouted portion, f_n , is x :

$$f_p/f_n = x$$

then the test load can be taken as:

$$P_{test} = P_{design} * \frac{\frac{1}{x} L_u + L_a}{L_a} * M$$

where L_a = Post-grouted length of Anchor
 L_u = Non-post-grouted length of Anchor
 M = 150% or 200%, depending on the test performed
 x = 1,800/600 = 3 (see Anchor Design section for values)

The total deflection during the 24-hour 200% test should not exceed 12 inches during loading; the anchor deflection should not exceed 0.75 inch during the 24-hour period, measured after the 200% test load is applied. If the anchor movement after the 200% load has been applied for 12 hours is less than 0.5 inch, and the movement over the previous 4 hours has been less than 0.1 inch, the test may be terminated.

For the quick 200% tests, the 200% test load should be maintained for 30 minutes. The total deflection of the anchor during the 200% quick test should not exceed 12 inches; the deflection after the 200% test load has been applied should not exceed 0.25 inch during the 30-minute period. Where satisfactory tests are not achieved on the initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

All of the production anchors should be pre-tested to at least 150% of the design load; the total deflection during the tests should not exceed 12 inches. The rate of creep under the 150% test should not exceed 0.1 inch over a 15-minute period for the anchor to be approved for the design loading.

After a satisfactory test, each production anchor should be locked-off at the design load. The locked-off load should be verified by rechecking the load in the anchor. If the locked-off load varies by more than 10% from the design load, the load should be reset until the anchor is locked-off within 10% of the design load.

The installation of the anchors and the testing of the completed anchors should be observed by our firm.

Internal Bracing

Raker bracing may be used to internally brace the soldier piles. If used, raker bracing could be supported laterally by temporary concrete footing (deadmen) or by the permanent interior footings. For design of such temporary footings, poured with the bearing surface normal to the rakers inclined at 45 to 60 degrees with the vertical, a bearing value of 3,000 pounds per square foot may be used, provided the shallowest point of the footing is at least 1 foot below the lowest adjacent grade. To reduce the movement of the shoring, the rakers should be tightly wedged against the footings and/or shoring system.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized, however, that some deflection will occur. We estimate that this deflection could be on the order of 1 inch at the top of the shored embankment. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of the utilities in the adjacent streets. If it is desired to reduce the deflection of the shoring, a greater active pressure could be used in the shoring design.

Monitoring

Some means of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles. We will be pleased to discuss this further with the design consultants and the contractor when the design of the shoring system has been finalized.

In addition, we recommend that the adjacent existing buildings be surveyed for horizontal and vertical locations. Also, a careful survey of existing cracks and offsets in the adjacent buildings would be prudent and recorded and photographic records made to document the pre-construction conditions of the existing buildings.

CLOSURE

The conclusions, recommendations, and opinions presented herein are: (1) based upon our evaluation and interpretation of the limited data obtained from field and laboratory programs; (2) based upon an interpolation of soil conditions between and beyond the boring; (3) are subject to confirmation of the actual conditions encountered during construction; and, (4) are based upon the assumption that sufficient observation and testing will be provided during construction.

If parties other than GeoBoden are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or providing alternate recommendations.

If pertinent changes are made in the project plans or conditions are encountered during construction that appear to be different than indicated by this report, please contact this office. Significant variations may necessitate a re-evaluation of the recommendations presented in this report.

Proposed Apartment Building

June 12, 2023

Page 14

REFERENCES

California Building Code, 2022 Volume 2.

And Percolation Testing Proposed Apartment Building Project, Lot LT 1 Of Tract No. 28401, 16949-16955 West Sherman Way, Los Angeles, California 91406, prepared by Applied Earth Sciences, dated December 3, 2020, project No. 20-647-02.

Proposed Apartment Building

June 12, 2023

Page 15

Should you have any questions or require additional information, please call.

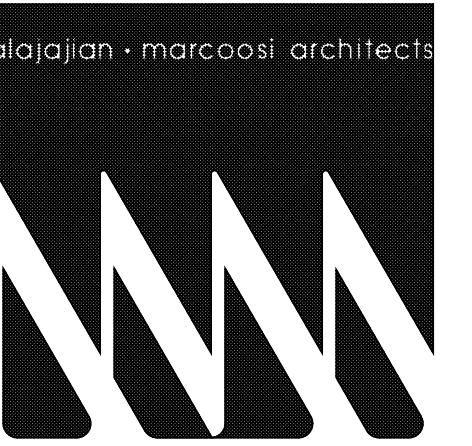
Respectfully submitted,
GEOBODEN INC.



Shahrokh (Cyrus) E Radvar
Principal Engineer, G.E. 2742

VESTING ZONE CHANGE TO (T)(Q)RAS4-1VL
291'-0 1/2"

THE ABOVE DRAWINGS AND SPECIFICATIONS AND IDEAS, DESIGNS AND ARRANGEMENTS REPRESENTED THEREBY ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT, AND NO PART THEREOF SHALL BE COPIED, DISCLOSED TO OTHERS OR USED IN CONNECTION WITH ANY WORK OR PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED WITHOUT THE WRITTEN CONSENT OF THE ARCHITECT. VISUAL CONTACT WITH THESE DRAWINGS AND SPECIFICATIONS SHALL CONSTITUTE CONCLUSIVE EVIDENCE OF THESE RESTRICTIONS. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB, AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN IN THESE DRAWINGS. SHOP DETAILS MUST BE SUBMITTED TO THIS OFFICE FOR REVIEW BEFORE PROCEEDING WITH THE FABRICATION.



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Owner:
LION SIGNATURE INC.

Owner Address:
**100 Franklin Court
Glendale, CA 91205**

Project Name:
**111 UNIT
MIXED-USE
PROJECT**

Project Address:
**16949-16955 W.SHERMAN WAY
LOS ANGELES, CA 91408**

SITE PLAN

Scale: "1"=1'-0"

KEYPLAN

- APPROVED
- APPROVED
- REVISION
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- PRINT DATE 12.10.22
- JOB NO
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A-11



1 SITE PLAN
SCALE: 1/8" = 1'-0"

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Project Address:
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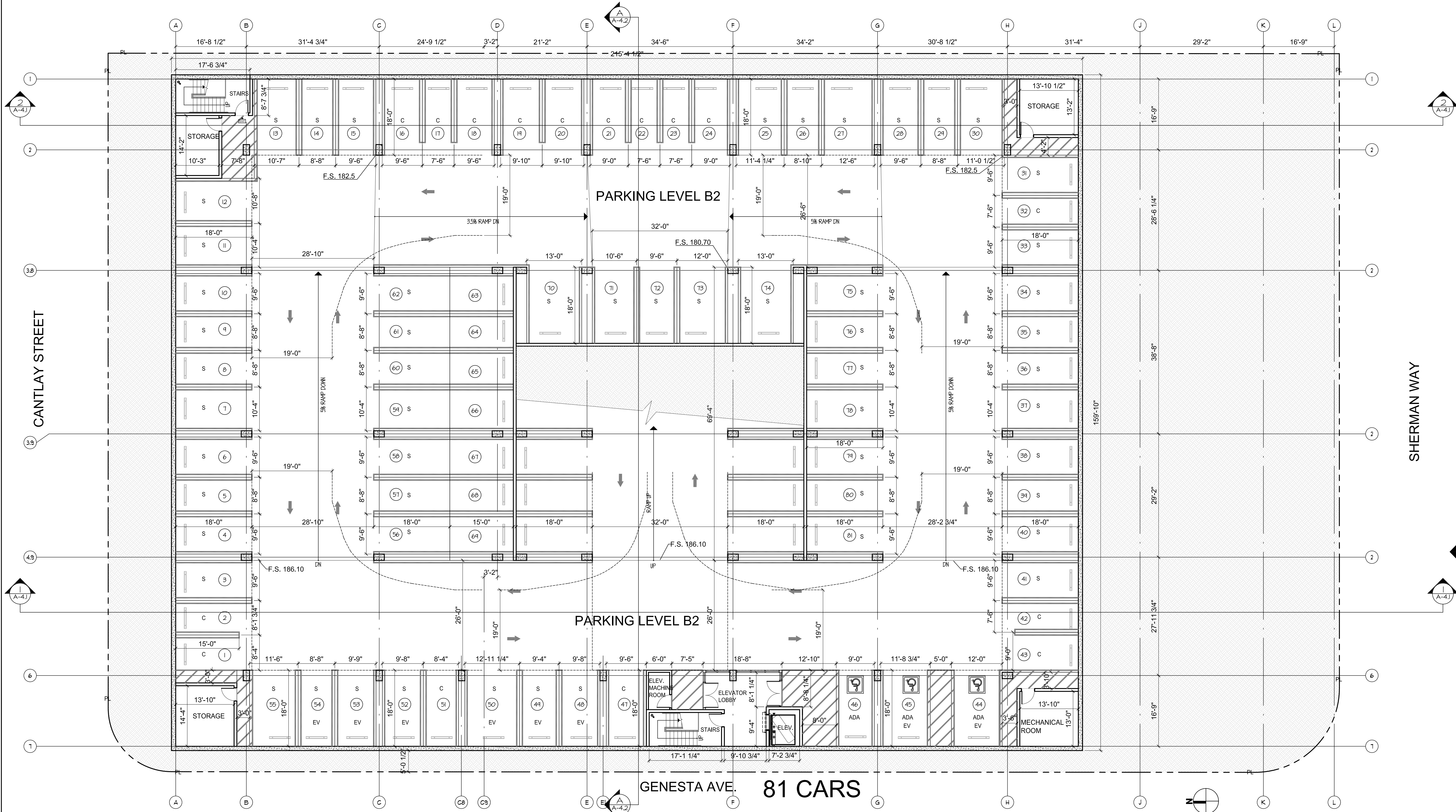
SUBTERRANEAN PARKING PLAN B2

Scale: 1/8" = 1'-0"

KEYPLAN

- APPROVED
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- REVISION
- REVISION
- REVISION
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- PRINT DATE 12.10.22
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A-2.0



GENESTA AVE. **81 CARS**

62 STANDARD SPACES (6 EV)
 16 COMPACT SPACES
 3 ADA SPACES (2 EV)
 TOTAL 81

1 SUBTERRANEAN PARKING PLAN B2

SCALE: 1/8" = 1'-0"

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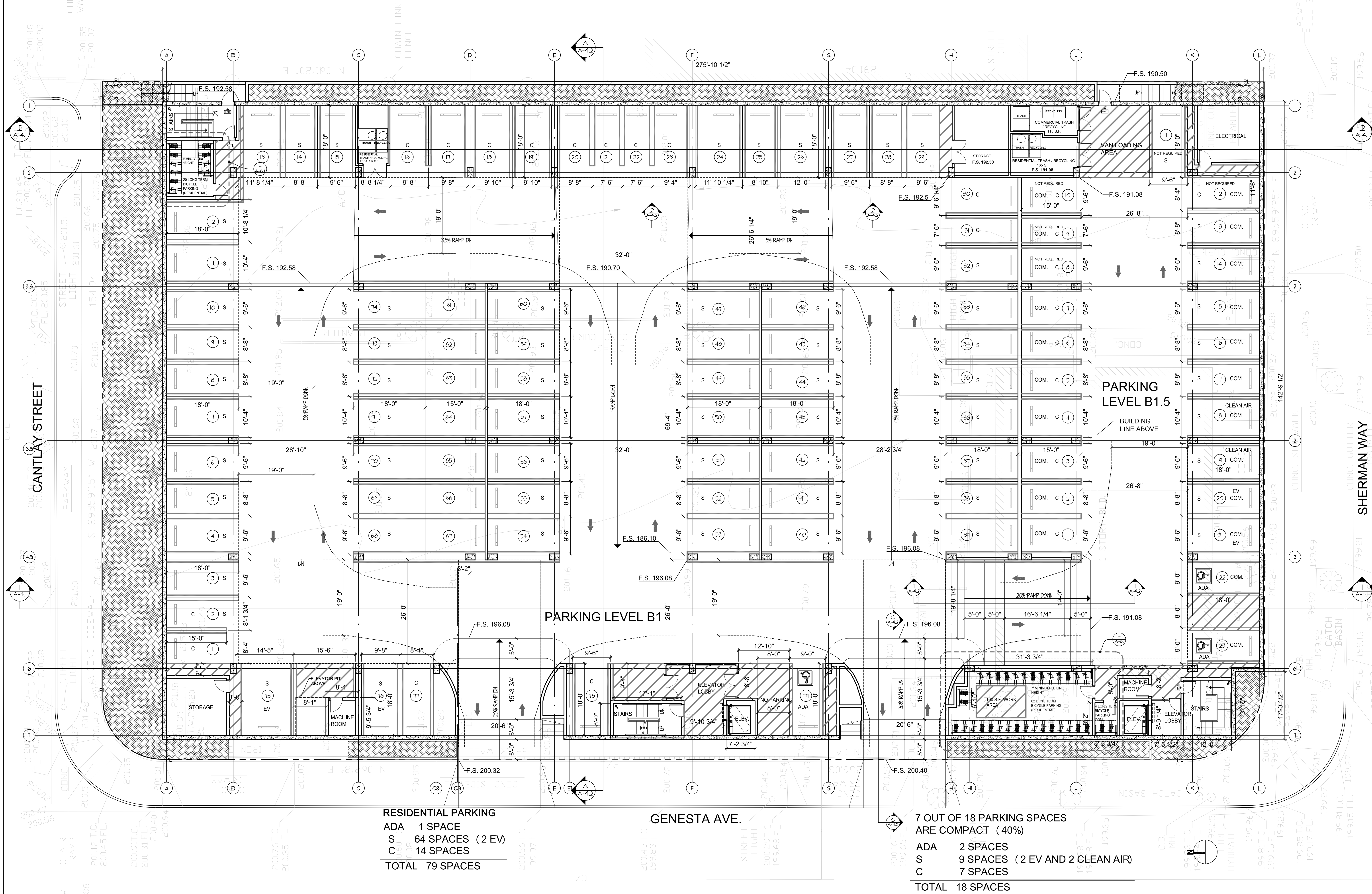
SUBTERRANEAN PARKING PLAN B1 AND B1.5

Scale: "1"=1'-0"

KEYPLAN

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A-2.1



RESIDENTIAL PARKING
 ADA 1 SPACE
 S 64 SPACES (2 EV)
 C 14 SPACES
 TOTAL 79 SPACES

GENESTA AVE.

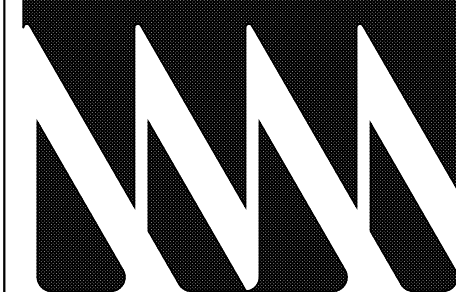
7 OUT OF 18 PARKING SPACES
 ARE COMPACT (40%)
 ADA 2 SPACES
 S 9 SPACES (2 EV AND 2 CLEAN AIR)
 C 7 SPACES
 TOTAL 18 SPACES

102 CARS

1 SUBTERRANEAN PARKING PLAN B1 AND B1.5

SCALE: 1/8" = 1'-0"

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Alajajian Marcoosi Architects Inc.

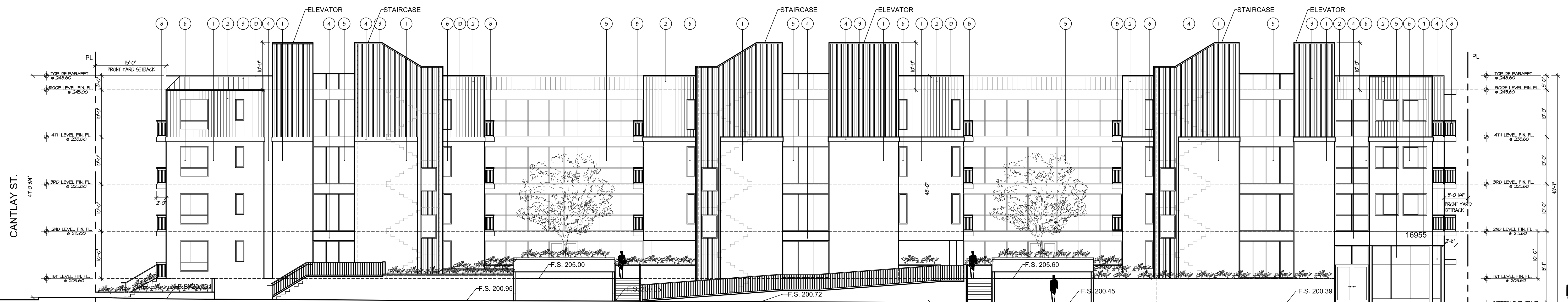
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Glendale, CA 91205**

Project Name:
111 UNIT MIXED-USE PROJECT

Project Address:
**16949-16955 W.SHERMAN WAY
LOS ANGELES, CA 91406**



EXTERIOR FINISH MATERIALS:

1. 1/8" THK. STEEL TRAYED SMOOTH FINISH CEMENT PLASTER, "OMEGA PRODUCTS INTERNATIONAL" COLOR BRIGHT WHITE # 05
2. COMPOSITE WOOD PANELS "TRESPA" (AGED ASH PATT) OR EQUAL
3. CORRUGATED METAL SIDING (BURBANDY COLOR)
4. METAL PANEL TRIM AND FASCIA, "ALPOLIC" OR EQUAL BLACK COLOR(TYP.)
5. DUAL GLAZED LOW "E" VISION GLASS, ANODIZED FRAME (CARTAN WALL ASSEMBLY(TYP.))
6. ANODIZED ALUMINUM DOOR AND WINDOWS W/ DUAL GLAZED LOW "E" VISION GLASS.
7. 1/4" AL ALUMINUM REVEAL, "TRY REGLET" OR EQUAL(TYP)
8. 42" HIGH STEEL RAILING PAINTED DANN EDWARDS DECTO ASH GRAY.
9. 12" HIGH, 1" STROKE, STAINLESS STEEL ADDRESS NUMBERS
10. SHEET METAL COPING.

WEST ELEVATION
SCALE: 3/32" = 1'-0"



EAST ELEVATION
SCALE: 3/32" = 1'-0"

ELEVATIONS

Scale: 1/4" = 1'-0"

KEYPLAN

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- APPROVED
- REVISION
- REVISION
- REVISION
- DRAWN BY
- PRINT DATE 12.10.22
- JOB NO
- SHEET NO

A-3.1

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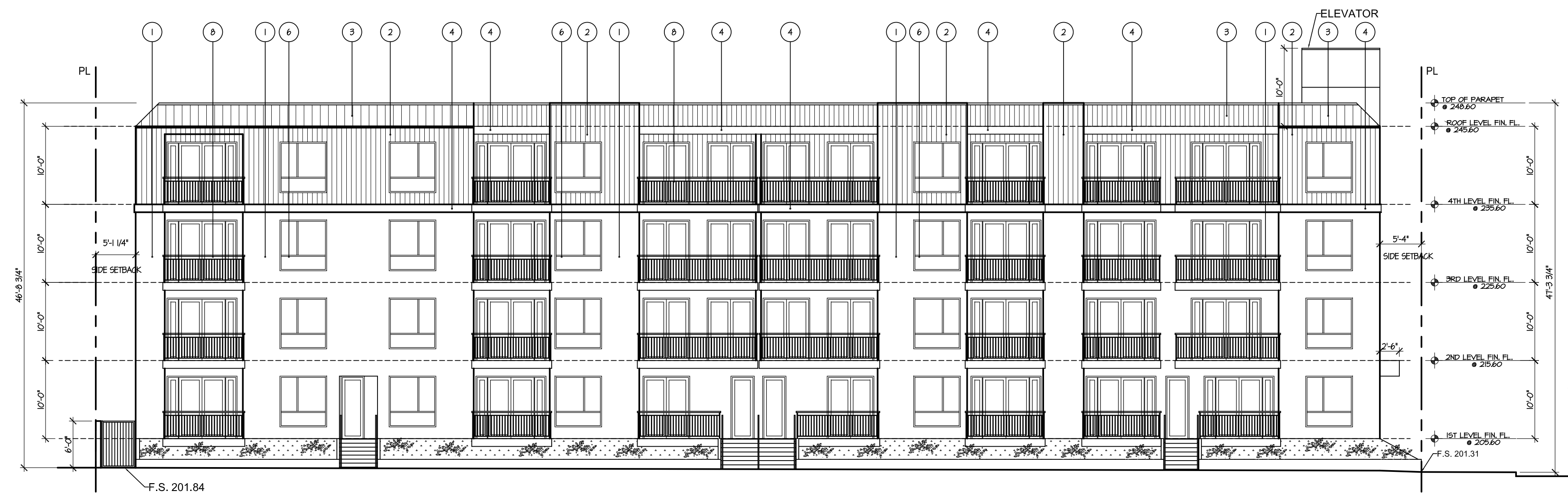
Project Address:
**16949-16955 W SHERMAN WAY
 LOS ANGELES, CA 91408**



EXTERIOR FINISH MATERIALS:

- | | |
|---|--|
| 1. 1/8" THICK STEEL TRAWLED SMOOTH FINISH CEMENT PLASTER, 'OMEGA PRODUCTS INTERNATIONAL' COLOR BIRCH WHITE # 15 | 6. ANODIZED ALUMINUM DOOR AND WINDOWS W/ DUAL GLAZED LOW 'E' VISION GLASS. |
| 2. COMPOSITE WOOD PANELS 'TRESPA' (AGED ASH PLY) OR EQUAL. | 7. 1/4" AL ALUMINUM REVEAL, 'FRY RESLET' OR EQUAL(TYP) |
| 3. CORRUGATED METAL SIDING (BURBANDY COLOR) | 8. 42" HIGH STEEL RAILING PAINTED DAWN EDWARDS DEC/51 ASH GRAY. |
| 4. METAL PANEL TRIM AND FASCIA, 'ALPOLIC' OR EQUAL BLACK COLOR(TYP). | 9. 12" HIGH, 1" STROKE, STAINLESS STEEL ADDRESS NUMBERS |
| 5. DUAL GLAZED LOW 'E' VISION GLASS, ANODIZED FRAME (GRTAN WALL ASSEMBLY(TYP)). | 10. SHEET METAL COPING. |

SOUTH ELEVATION
 SCALE: 3/32" = 1'-0"



NORTH ELEVATION
 SCALE: 3/32" = 1'-0"

ELEVATIONS

Scale: 1/8" = 1'-0"

KEYPLAN

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- REVISION
- REVISION
- DRAWN BY
- PRINT DATE 02.15.22
- JOB NO
- SHEET NO

A-3.2

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Project Name:
**111 UNIT
MIXED-USE
PROJECT**

Project Address:
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LOS ANGELES, CA 91408**

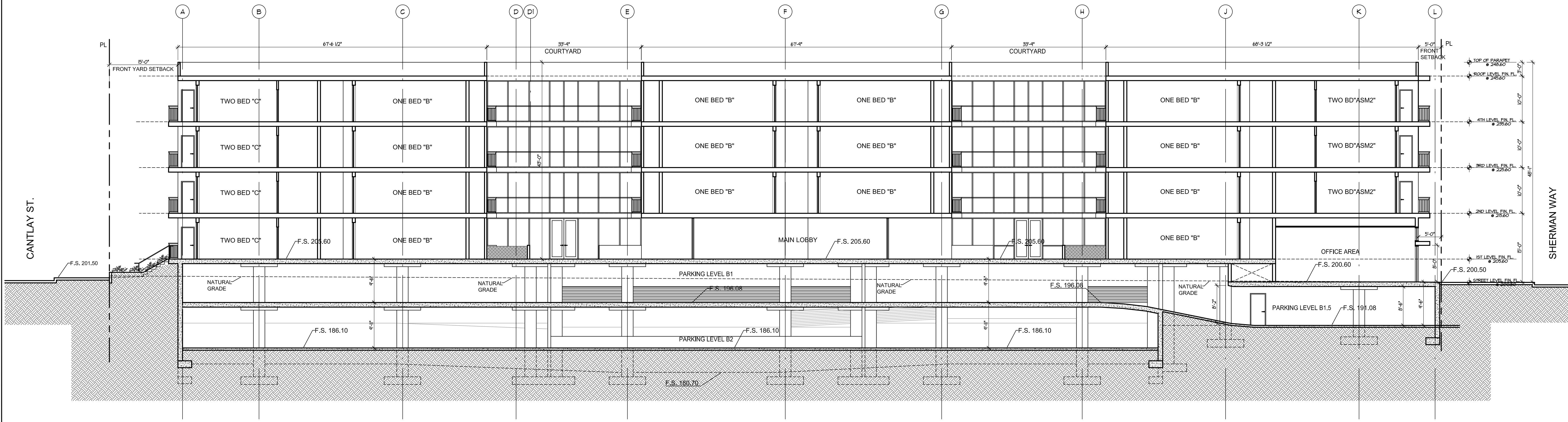
SECTIONS 1-1 AND 2-2

Scale: "1"=1'-0"

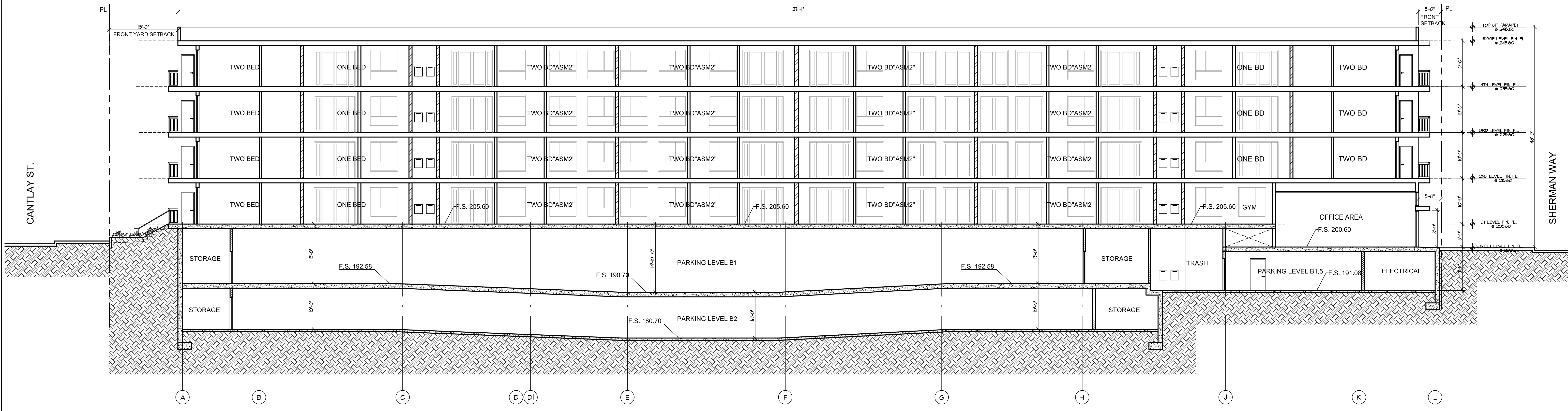
KEYPLAN

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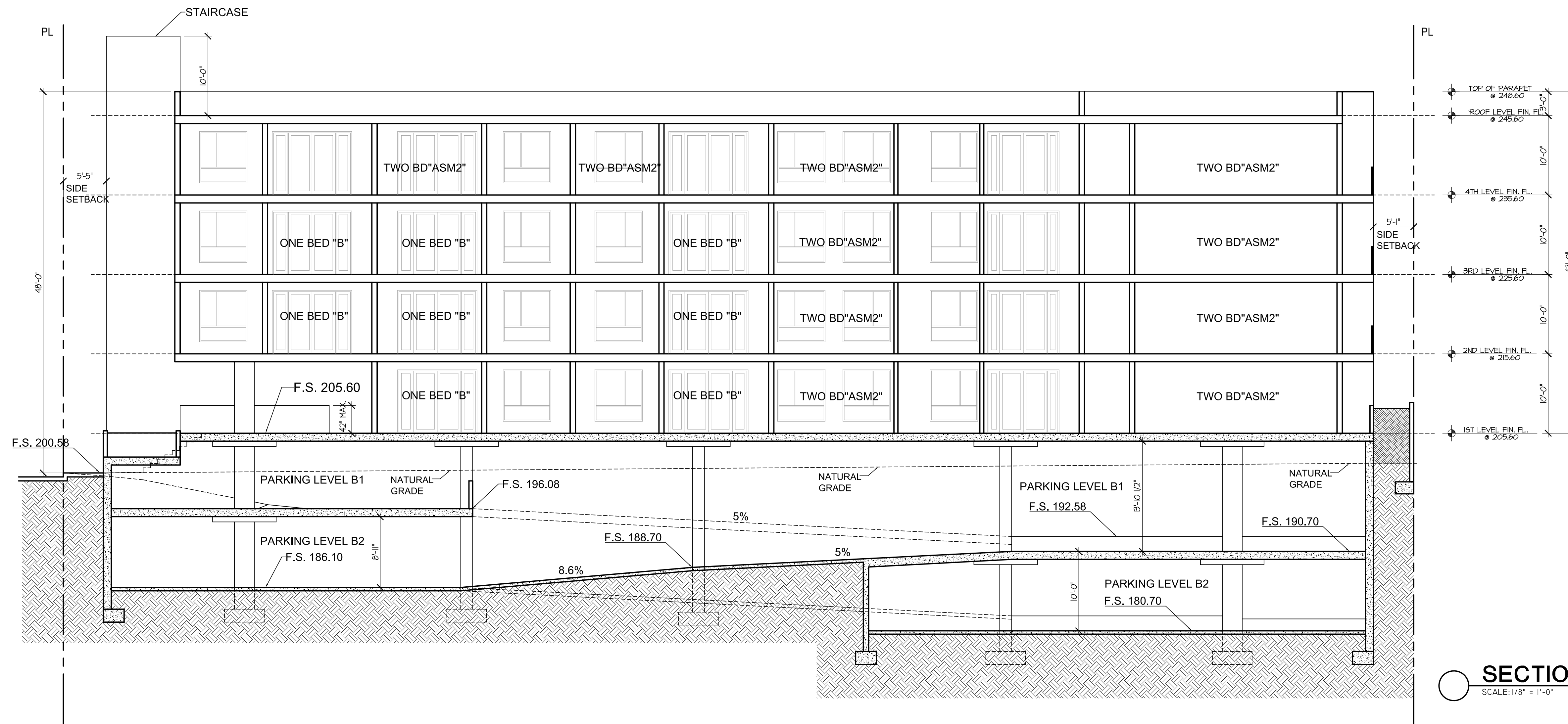
A-4.1



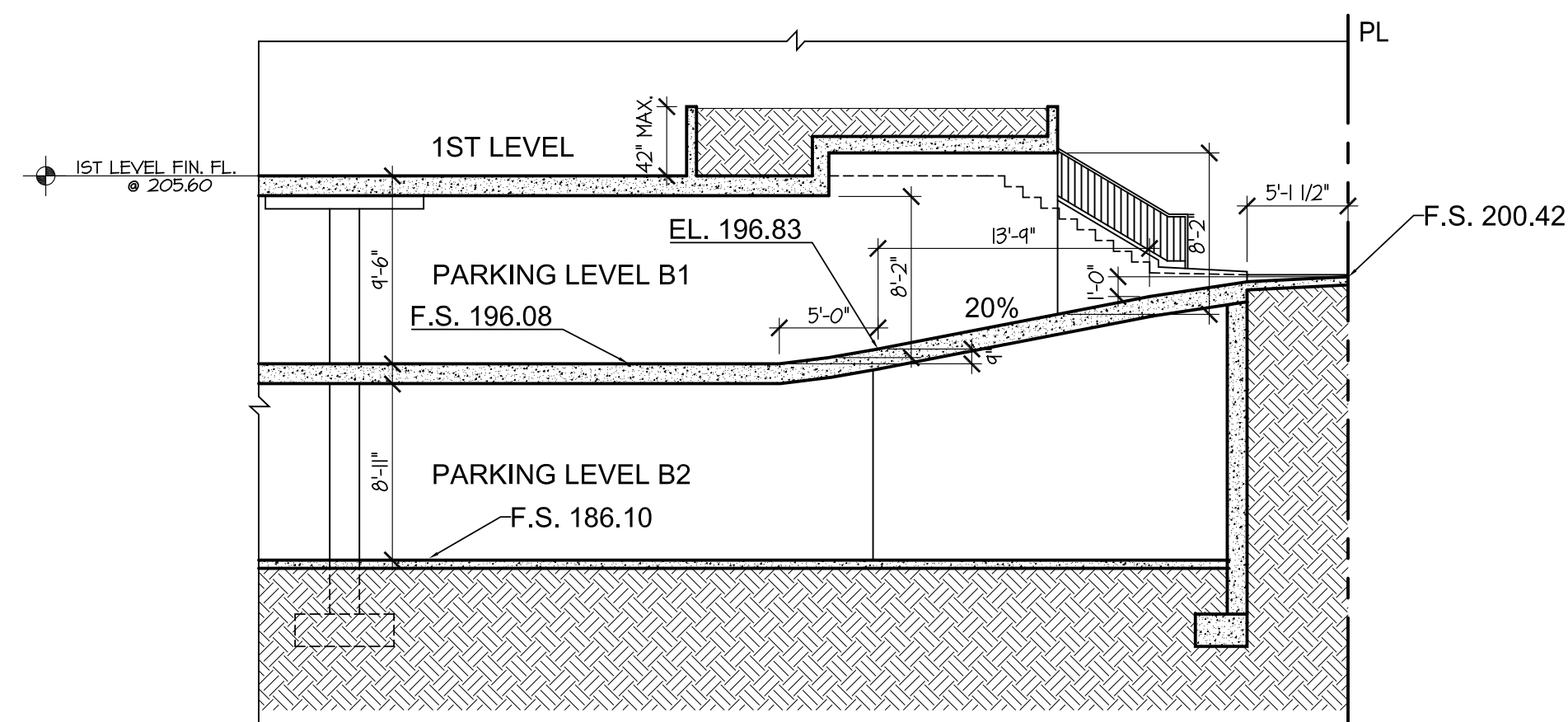
SECTION 1-1
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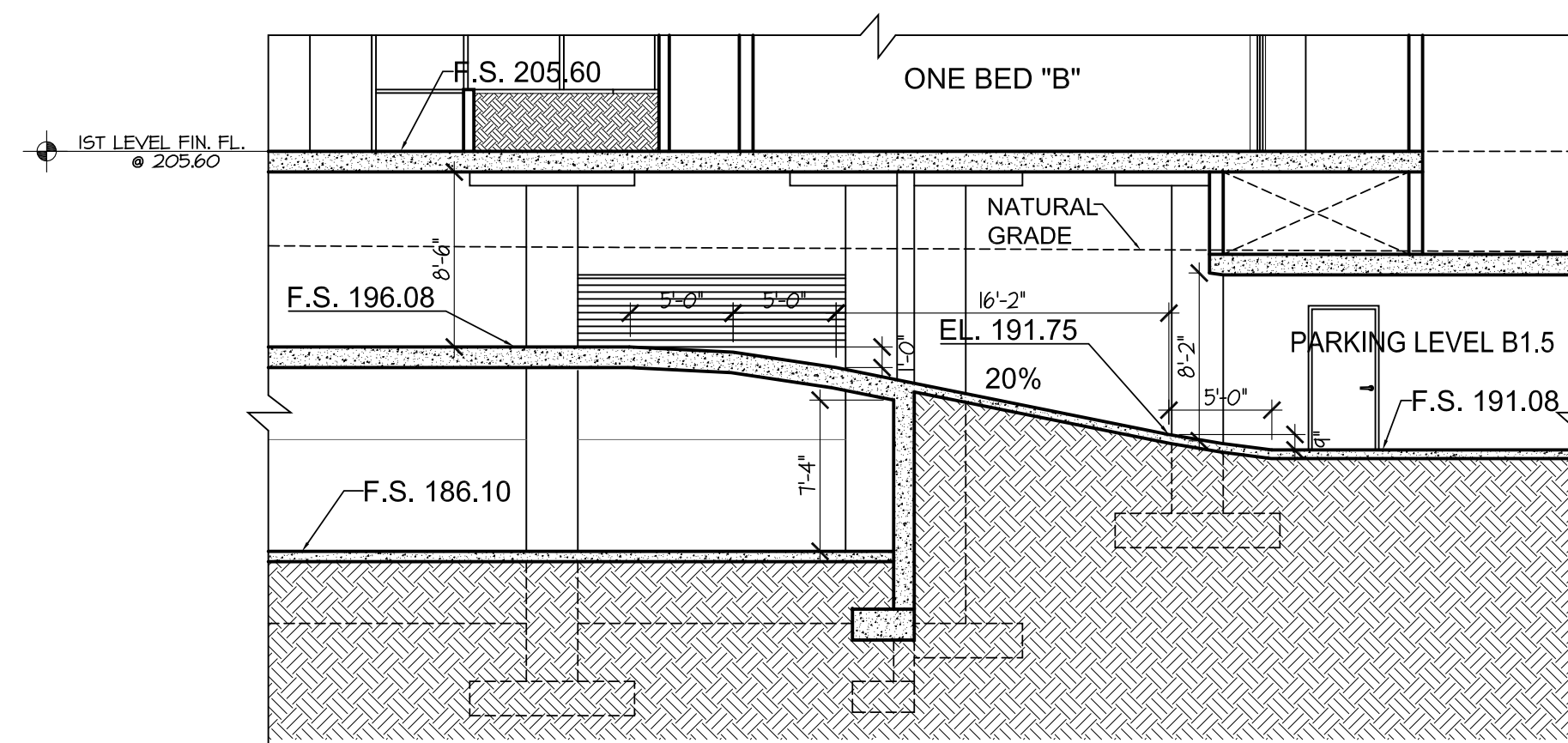
SECTION 2-2
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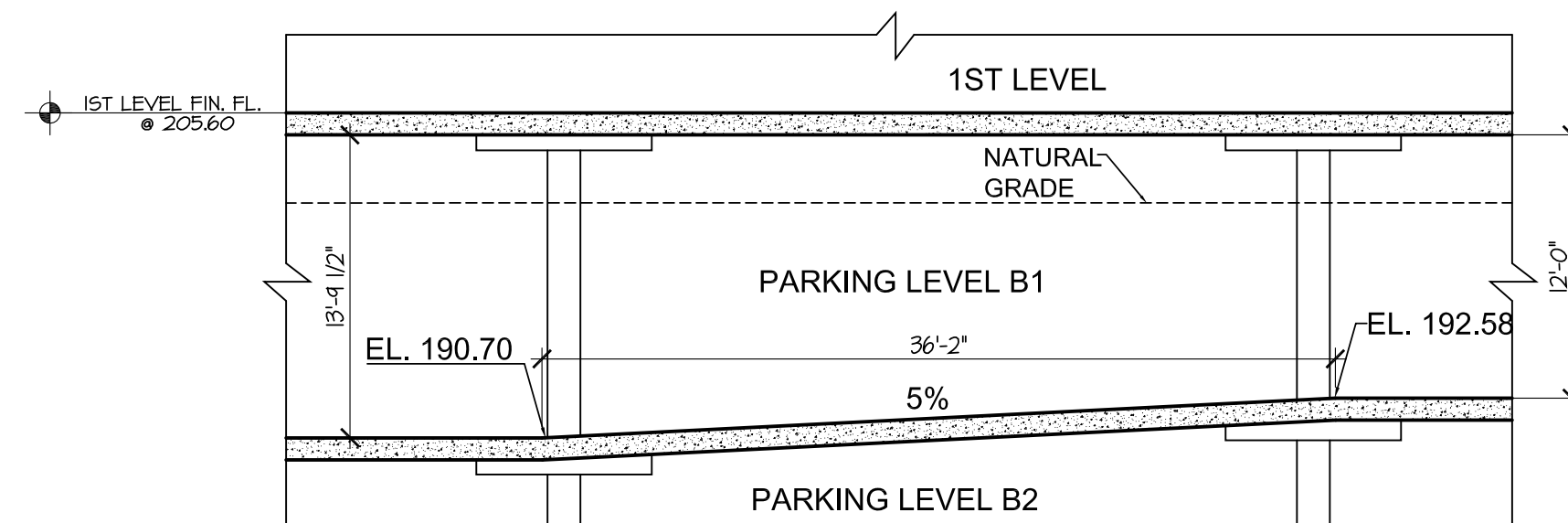
SECTION A-A
SCALE: 1/8" = 1'-0"



SECTION C-C
SCALE: 1/8" = 1'-0"



SECTION 1-1
SCALE: 1/8" = 1'-0"



SECTION 2-2
SCALE: 1/8" = 1'-0"

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**SECTION
A-A, C-C,
1-1, 2-2**

Scale: " = 1'-0"

KEYPLAN

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- DRAWN BY
- PRINT DATE 12.10.22
- JOB NO
- SHEET NO

A-4.2

Earth Pressure Calculation

Client: George	Job No.:
By: CR	Date: 6/12/2023

SOIL PROPERTIES
 Unit Weight, γ (pcf): 125
 Cohesion, c (psf): 0
 Friction Angle, ϕ (deg): 30

Seismic Earth Pressure - Mononobe-Okabe Method

Wall Friction Angle, δ (deg): 30	Pseudo, ϕ (deg): 30.00 (obtaining ϕ from $\gamma \cdot H_{wall}$ & 0)
Recommended δ (deg) = $2/3 \phi$: 20.00	
Backslope Angle w/ $h_{tal.}$, β (deg): 0	
Back of Wall Angle w/ $v_{cal.}$, θ (deg): 0	
$H_{tal.}$ Ground Acc., k_h (g's): 0.305	
$V_{cal.}$ Ground Acc., k_v (g's): 0	
ψ (rad): 0.29604	
Height of Wall, H (ft): 10	

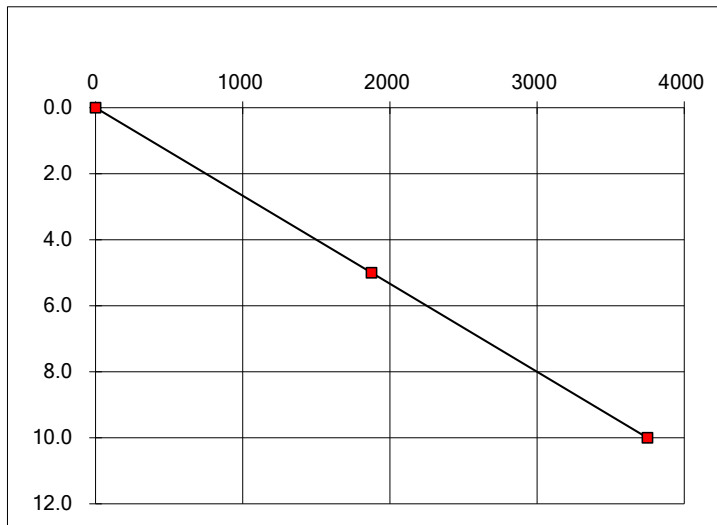
Active Earth Pressure		Passive Earth Pressure	
K_{AE} :	0.617	K_{PE} :	1.454
P_{AE} (lb):	3340	P_{PE} (lb):	7869
E.F.P. (pcf):	66.79	E.F.P. (pcf):	157.39

NOTE: Values represent combined effect of static & dynamic stresses

SOIL FRICTION FACTOR: 0.58 Sqrt($N\phi$) . 1.73 $N\phi$. . . 3.00 (k_p)

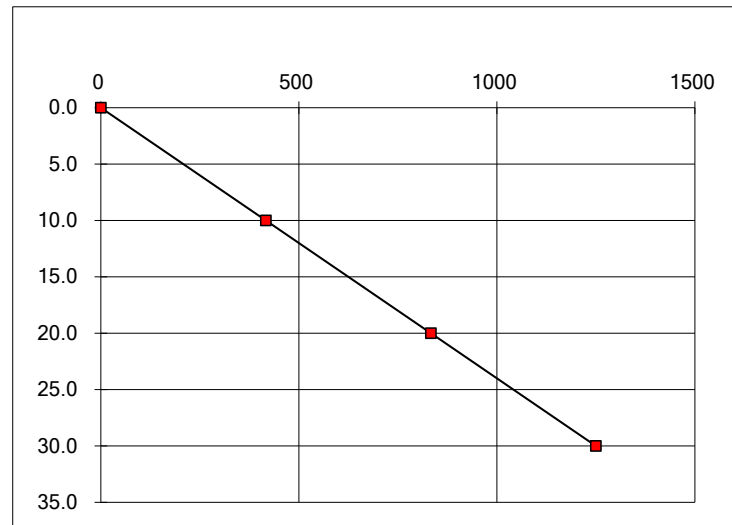
PASSIVE PRESSURE

$P_p = (2 \cdot COHESION \cdot \sqrt{N\phi}) + (UNIT \ WEIGHT \cdot DEPTH \cdot N\phi)$
 $P_p = 0 \text{ psf} + 375.0 \text{ pcf} \cdot DEPTH \text{ (feet)}$
 $P_p = 0 \text{ psf}$ at a depth of 0.0 feet
 $P_p = 1875 \text{ psf}$ at a depth of 5.0 feet
 $P_p = 3750 \text{ psf}$ at a depth of 10.0 feet



ACTIVE PRESSURE

$P_a = -(2 \cdot COHESION / \sqrt{N\phi}) + (UNIT \ WEIGHT \cdot DEPTH / N\phi)$
 $P_a = 0 \text{ psf} + 41.7 \text{ pcf} \cdot DEPTH \text{ (feet)}$
 $P_a = 0 \text{ psf}$ at a depth of 0.0 feet
 $P_a = 417 \text{ psf}$ at a depth of 10.0 feet
 $P_a = 833 \text{ psf}$ at a depth of 20.0 feet
 $P_a = 1250 \text{ psf}$ at a depth of 30.0 feet



BEARING CAPACITY -- TERZAGHI EQUATION

Client: 0
 Job No: 0
 By: CR

Type of Footing: SQUARE
 Type of shear: GENERAL
 Factor of safety: 3

SOIL PROPERTIES:

UNIT WEIGHT = 120 pcf
 COHESION = 140 psf
 FRICTION ANGLE = 30 degrees

BEARING CAPACITY FACTORS:

Nc = 37.2
 Nq = 22.5
 Ngamma = 19.7

FOOTING SHAPE MULTIPLIERS:

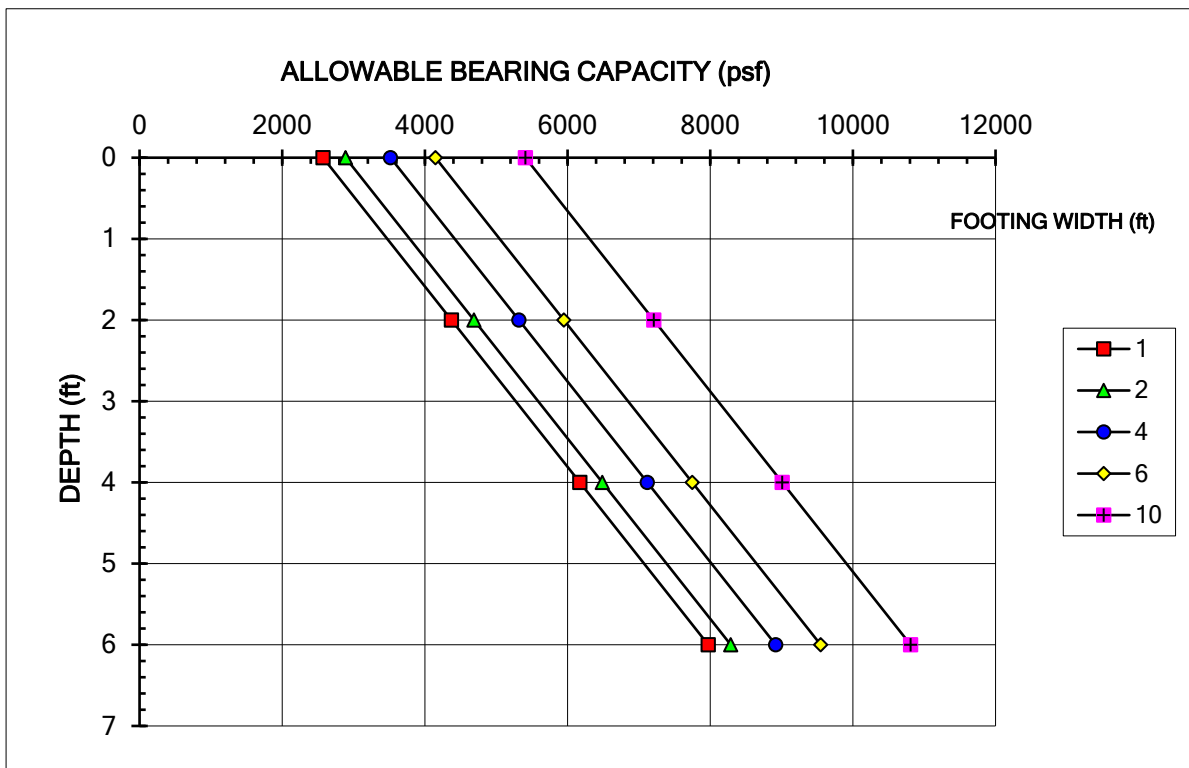
Sc = 1.3
 Sgamma = 0.8

TERZAGHI EQUATION:

$$\text{Allowable bearing capacity} = (Sc(c*Nc) + \gamma*DEPTH*Nq + 0.5*S\gamma*\gamma*WIDTH*Ngamma) / FS$$

Allowable bearing capacities (psf) for various footing depths and widths:

Depth (ft)	Footing Width (ft)				
	1	2	4	6	10
0	2572	2887	3518	4148	5409
2	4372	4687	5318	5948	7209
4	6172	6487	7118	7748	9009
6	7972	8287	8918	9548	10809





August 23, 2023

Shermanway-1-01

Lion Signature, INC
100 Franklin Court,
Glendale Ca 91205

**Subject: Response to City of Los Angeles Soils Report Review Letter
Proposed Apartment Building
Lot LT 1 Of Tract No. 28401
16949-16955 West Sherman Way
Los Angeles, California 91406**

**Reference: CHANGE OF ENGINEER OF RECORD FOR GEOTECHNICAL
INVESTIGATION, Proposed Apartment Building, Lot LT 1 Of Tract No. 28401
16949-16955 West Sherman Way, Los Angeles, California 91406, prepared by
Geoboden, Inc., dated June 12, 2023**

This letter is presented in response to the City of Los Angeles Department of Building and Safety Soils Report Review Letter, dated July 11, 2023 following the review of our referenced report dated June 12, 2023. Item numbers below correspond to the review sheet item numbers. A copy of the review sheet is attached for your reference.

1. The original report was prepared by Applied Earth Sciences (AES), dated December 3, 2020, Geotechnical Investigation, And Percolation Testing, Proposed Apartment Building Project, Lot LT 1 Of Tract No. 28401, 16949-16955 West Sherman Way, Los Angeles, California 91406. The report was approved on March 1, 2023 by the Department of Grading. Copies of prior report and Department Approval Letter are saved on a Flash Drive and will be submitted along with this response.
2. We have reviewed all existing records available for the site and properties in the immediate vicinity of the site. Copies of prior reports are saved on a Flash Drive and will be submitted along with this response.
3. Geoboden has reviewed report prepared by Applied Earth Science dated 12/03/2020. Geoboden concurs with the field work, laboratory test data, recommendations and report prepared by AES. Geoboden accepts responsibility for the field and laboratory data as the new Engineer of Record. As of the date of this report, GeoBoden will act as geotechnical consultant of record for all future work within our purview to be performed within the subject site.

ICONIC DEVELOPMENT

August 23, 2023

Page 2

Please contact the undersigned if you have any questions or if we may be of any additional assistance.

Respectfully submitted,
GEOBODEN INC.



Shahrokh (Cyrus) E Radvar
Principal Engineer, G.E. 2742

Enclosures

CITY OF LOS ANGELES REVIEW LETTER

JAVIER NUNEZ
PRESIDENT

JOSELYN GEAGA-ROSENTHAL
VICE PRESIDENT

JACOB STEVENS
MOISES ROSALES
NANCY YAP



KAREN BASS
MAYOR

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

SOILS REPORT REVIEW LETTER

July 11, 2023

LOG # 126734
SOILS/GEOLOGY FILE - 2

Lion Signature
100 Franklin Court
Glendale, Ca 91205

TRACT: 28401
LOT: LT1
LOCATION: 16949-16955 West Sherman Way

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Update Report	Shermanway-1-01	06/12/2023	Geoboden, Inc.

The Grading Division of the Department of Building and Safety has reviewed the referenced report(s) that provide(s) recommendations for the proposed four-story (84-units) apartment building over a two-level subterranean parking. The earth materials at the subsurface exploration locations consist of up to 2 feet of uncertified fill underlain by native. The consultants recommend to support the proposed structure(s) on conventional foundations bearing on native undisturbed soils and/or a blanket of properly placed fill.

As of January 1, 2023, the City of Los Angeles has adopted the new 2023 Los Angeles Building Code (LABC). The 2023 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2023.

The review of the subject report(s) cannot be completed at this time and will be continued upon submittal of an addendum to the report which shall include, but not be limited to, the following:

(Note: Numbers in parenthesis () refer to applicable sections of the 2023 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The subject of the current reference report indicates that the report dated 06/12/2023 is an update to a previous report; however, it does not appear that the previous report was referenced.
2. Research, review and reference all existing records at the Research Division of the Department of Building and Safety for the subject and adjacent properties and incorporate the existing geologic data into the current evaluation. Include for review purposes a

complete electronic PDF copy (including exploration logs, geologic map, cross-sections and lab data) of the previous report/s and the Department's review letter/s.

3. Provide a statement of responsibility indicating that you have reviewed and concurred with the field work, laboratory test data, recommendations and report prepared by Applied Earth Science dated 12/03/2020. P/BC 2020-113

The soils engineer shall prepare a report containing an itemized response to the review items indicated in this letter. If clarification concerning the review letter is necessary, the report review engineer may be contacted. Two copies of the response report, including one unbound wet-signed original for archiving purposes, a pdf-copy of the complete report in flash drive, and the appropriate fees will be required for submittal.


ROCIO DURAN
Structural Engineering Associate II

RD/rd
Log No. 126734
213-482-0480

cc: Geoboden, Inc., Project Consultant
LA District Office

APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS

A. Address all communications to the Grading Division, LADBS, 221 N. Figueroa St., 12th Fl., Los Angeles, CA 90012
Telephone No. (213)482-0480.

B. Submit two copies (three for subdivisions) of reports, one "pdf" copy of the report on a CD-Rom or flash drive,
and one copy of application with items "1" through "10" completed.

C. Check should be made to the City of Los Angeles.

Attention: Adela to file way

1. LEGAL DESCRIPTION

Tract: 28401
Block: _____ Lots: LTI

2. PROJECT ADDRESS:

16949-16955 West Sherman

3. OWNER:

Lion Signature, Inc

4. APPLICANT

Geoboden, Inc.

Address: 100 Franklin Court

Address: 5 Hodgenville

City: Glendale Zip: 91205

City: Irvine Zip: 92620

Phone (Daytime): (818) 535-5287

Phone (Daytime): 949-872-9565 com

E-mail address: geoboden@geobodeninc.

5. Report(s) Prepared by:

Geoboden, Inc.

6. Report Date(s):

June 12, 2023

7. Status of project:

Proposed Under Construction Storm Damage

8. Previous site reports?

YES if yes, give date(s) of report(s) and name of company who prepared report(s)

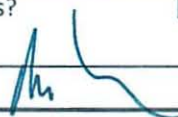
net
eharris.vardan@secdevelopment.

9. Previous Department actions?

YES if yes, provide dates and attach a copy to expedite processing.

Dates: _____

10. Applicant Signature:



Position:

Soils Engineer

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
<input type="checkbox"/> Soils Engineering		No. of Lots	
<input type="checkbox"/> Geology		No. of Acres	
<input type="checkbox"/> Combined Soils Engr. & Geol.		<input type="checkbox"/> Division of Land	
<input checked="" type="checkbox"/> Supplemental	<u>181.50</u>	Other	
<input type="checkbox"/> Combined Supplemental		<input checked="" type="checkbox"/> Expedite	<u>90.75</u>
<input type="checkbox"/> Import-Export Route		<input type="checkbox"/> Response to Correction	
Cubic Yards: _____		<input type="checkbox"/> Expedite ONLY	
		Sub-total	<u>272.25</u>
		Surcharge	<u>69.91</u>
		TOTAL FEE	<u>342.14</u>

Fee Due: 342.14
Fee Verified By: Am Date: 6/23/23
(Cashier Use Only)

Receipt #

16/2895

Paid on

6/23/23

ACTION BY:

THE REPORT IS:

NOT APPROVED

APPROVED WITH CONDITIONS

BELOW

ATTACHED

For Geology

Date

For Soils

Date

CITY OF LOS ANGELES
CALIFORNIA

BOARD OF
BUILDING AND SAFETY
COMMISSIONERS

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PRESIDENT

JAVIER NUNEZ
VICE PRESIDENT

JOSELYN GEAGA-ROSENTHAL
GEORGE HOVAGUIMIAN
ELVIN W. MOON



ERIC GARCETTI
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

March 1, 2021

LOG # 116196
SOILS/GEOLOGY FILE - 2

Lion Signature
6362 Van Nuys Blvd
Van Nuys, CA 91401

TRACT: 28401
LOT: LT1
LOCATION: 16949-16955 West Sherman Way

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Soils Report	20-647-02	12/03/2020	Applied Earth Sciences

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provide recommendations for the proposed four-story (84-units) apartment building over garage on grade. The site was occupied with a commercial building and a paved parking lot that will demolished for the new development. The earth materials at the subsurface exploration locations consist of up to 2 feet of uncertified fill underlain by native. The consultants recommend to support the proposed structure on conventional foundations bearing on a blanket of properly placed fill a minimum of 3 feet thick.

As of January 1, 2020, the City of Los Angeles has adopted the new 2020 Los Angeles Building Code (LABC). The 2020 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2020.

The referenced report is acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

101080420212072217

2. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.
 3. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.
 4. A grading permit shall be obtained for all structural fill (106.1.2).
 5. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.
 6. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).
 7. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet whichever is greater, except at locations where lateral over excavation is not possible, in which case the foundations may be deepened to bear in native soils, as recommended (7011.3).
 8. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).
 9. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).
 10. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cubic yards (7007.1).
- 6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605
11. All loose foundation excavation material shall be removed prior to commencement of framing. (7005.3).
 12. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).
 13. Excavations shall not remove lateral support from a public way, adjacent property or an existing structure. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

14. A supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction in the event that any excavation would remove lateral support to the public way, adjacent property, or adjacent structures (3307.3). A plot plan and cross-section(s) showing the construction type, number of stories, and location of the structures adjacent to the excavation shall be part of the excavation plans (7006.2).
15. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).
16. All foundations shall derive entire support from a blanket of properly placed fill a minimum of 3 feet thick, as recommended and approved by the soils engineer by inspection.
17. Footings supported on approved compacted fill or expansive soil shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.
18. The foundation/slab design shall satisfy all requirements of the Information Bulletin P/BC 2017-116 "Foundation Design for Expansive Soils" (1803.5.3).
19. Slabs placed on approved compacted fill shall be at least 5 inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.
20. Concrete floor slabs placed on expansive soil shall be placed on a 4-inch fill of coarse aggregate or on a moisture barrier membrane.
21. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.
22. The structure shall be connected to the public sewer system per P/BC 2020-027.
23. All roof, pad and deck drainage shall be conducted to the street in an acceptable manner in non-erosive devices or other approved location in a manner that is acceptable to the LADBS and the Department of Public Works[; water shall not be dispersed on to descending slopes without specific approval from the Grading Division and the consulting geologist and soils engineer] (7013.10).
24. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).
25. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).
26. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also

inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

27. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; protection fences; and, dust and traffic control will be scheduled (108.9.1).
28. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).
29. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.


ROCIO DURAN

Structural Engineering Associate II

RD/rd

Log No. 116196

213-482-0480

cc: Applied Earth Sciences, Project Consultant
VN District Office

CITY OF LOS ANGELES

CALIFORNIA



BOARD OF
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KAREN BASS
MAYOR

DEPARTMENT OF
BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

JOHN WEIGHT
EXECUTIVE OFFICER

SOILS REPORT APPROVAL LETTER

September 25, 2023

LOG # 126734-1
SOILS/GEOLOGY FILE - 2

Lion Signature
100 Franklin Court
Glendale, Ca 91205

TRACT: 28401
LOT: LT1
LOCATION: 16949-16955 West Sherman Way

<u>CURRENT REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Update Report	Shermanway-1-01	08/23/2023	Geoboden, Inc.
<u>PREVIOUS REFERENCE</u> <u>REPORT/LETTER(S)</u>	<u>REPORT</u> <u>No.</u>	<u>DATE OF</u> <u>DOCUMENT</u>	<u>PREPARED BY</u>
Dept. Review Letter	126734	07/11/2023	LADBS
Update Report	Shermanway-1-01	06/12/2023	Geoboden, Inc.
Dept Approval Letter	116196	03/01/2021	LADBS
Soils Report	20-647-02	12/03/2020	Applied Earth Sciences

The Department of Building and Safety accepts this letter and notification of transferring the responsibility for grading geotechnical supervision and recognizes Geoboden, Inc., as the new geotechnical consultant provided all the conditions in the Department's previous approval letters are complied with. The above letter concerning project geotechnical supervision has been received pursuant to Section 91.7008 of the Los Angeles Municipal Code. The Department previously conditionally approved reports for the construction of four-story apartment building over a two-level subterranean parking.

The Grading Division of the Department of Building and Safety has reviewed the referenced report(s) that provide(s) recommendations for the proposed four-story (84-units) apartment building over a two-level subterranean parking. The earth materials at the subsurface exploration locations consist of up to 2 feet of uncertified fill underlain by native. The consultants recommend to support the proposed structure(s) on conventional foundations bearing on native undisturbed soils and/or a blanket of properly placed fill.

As of January 1, 2023, the City of Los Angeles has adopted the new 2023 Los Angeles Building Code (LABC). The 2023 LABC requirements will apply to all projects where the permit application submittal date is after January 1, 2023.

The referenced report(s) are acceptable, provided the following conditions are complied with during site development:

(Note: Numbers in parenthesis () refer to applicable sections of the 2023 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

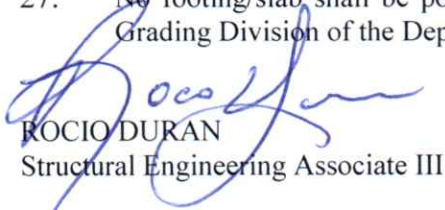
1. All conditions of the above referenced Department approval letter(s) shall apply.
2. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).
3. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).
4. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet whichever is greater, except at locations where lateral over excavation is not possible, in which case the foundations may be deepened to bear in native soils (7011.3).
5. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)
6. Where any excavation, not addressed in the approved reports, would remove lateral support (as defined in 3307.3.1) from a public way, adjacent property or structures, a supplemental report shall be submitted to the Grading Division of the Department containing recommendations for shoring, underpinning, and sequence of construction. Shoring recommendations shall include the maximum allowable lateral deflection of shoring system to prevent damage to adjacent structures, properties and/or public ways. Report shall include a plot plan and cross-section(s) showing the construction type, number of stories, and location of adjacent structures, and analysis incorporating all surcharge loads that demonstrate an acceptable factor of safety against failure. (7006.2 & 3307.3.2)
7. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).
8. The seismic design shall be based on a Site Class D, as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check. According to ASCE 7-16 Section 11.4.8, for structures on Site Class D sites with S_1 greater than or equal to 0.2, the parameter SM_1 determined by EQ. (11.4-2) shall be increased by 50%. Alternatively, a supplemental report containing a site-specific ground motion hazard analysis in accordance with ASCE 7-16 Section 21.2 shall be submitted for review and approval.
9. The soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).
10. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.

11. Shoring shall be designed for a minimum EFP of 35 PCF; all surcharge loads shall be included into the design, as recommended. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.
12. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.
13. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.
14. All foundations shall derive entire support from native undisturbed soils, a blanket of properly placed fill, as recommended and approved by the soils engineer by inspection.
15. Footings supported on approved compacted fill or expansive soil shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.
16. Retaining walls shall be designed for the lateral earth pressures specified in the section titled "Retaining Walls" starting on page 3 of the 06/12/2023 report. All surcharge loads shall be included into the design.
17. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on page 4 of the 06/12/2023 report (1803.5.12). Note: Lateral earth pressure due to earthquake motions shall be in addition to static lateral earth pressures and other surcharge pressures.
18. Basement walls and other walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure as specified on page 4 of the 06/12/2023 report (1610.1). All surcharge loads shall be included into the design.
19. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).
20. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).
21. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).
22. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).
23. The use of acceptable prefabricated drainage composites (also known as geosynthetic subdrain systems), as an alternative to traditionally accepted methods of draining retained earth, shall be determined during structural plan check.
24. Where the ground water table is lowered and maintained at an elevation not less than 6 inches below the bottom of the lowest floor, or where hydrostatic pressures will not occur, the floor and basement walls shall be damp-proofed. Where a hydrostatic pressure condition exists, and the

16949-16955 West Sherman Way

design does not include a ground-water control system, basement walls and floors shall be waterproofed. (1803.5.4, 1805.1.3, 1805.2, 1805.3)

25. Installation of shoring, underpinning, slot cutting and/or pile excavations shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6, 1705.8).
26. The installation and testing of tie-back anchors shall comply with the recommendations included in the report or the standard sheets titled "Requirement for Tie-back Earth Anchors", whichever is more restrictive. [Research Report #23835]
27. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.



ROCIO DURAN
Structural Engineering Associate III

RD/rd
Log No. 126734-1
213-482-0480

cc: Geoboden, Inc., Project Consultant
LA District Office

APPLICATION FOR REVIEW OF TECHNICAL REPORTS

INSTRUCTIONS

- A. Address all communications to the Grading Division, LADBS, 221 N. Figueroa St., 12th Fl., Los Angeles, CA 90012
Telephone No. (213)482-0480.
- B. Submit two copies (three for subdivisions) of reports, one "pdf" copy of the report on a CD-Rom or flash drive, and one copy of application with items "1" through "10" completed.
- C. Check should be made to the City of Los Angeles.

<p>1. LEGAL DESCRIPTION</p> <p>Tract: <u>2840 1</u></p> <p>Block: _____ Lots: <u>LT 1</u></p> <p>3. OWNER: <u>Lion Signature, Inc.</u></p> <p>Address: <u>100 Franklin Court</u></p> <p>City: <u>Glendale</u> Zip: <u>91205</u></p> <p>Phone (Daytime): <u>(818) 535-5287</u></p> <p>5. Report(s) Prepared by: <u>Geoboden, Inc.</u></p>	<p>2. PROJECT ADDRESS: <u>16949-16955 West Sherman</u></p> <p>4. APPLICANT <u>Geoboden, Inc.</u></p> <p>Address: <u>5 Hodgenville</u></p> <p>City: <u>Irvine</u> Zip: <u>92620</u></p> <p>Phone (Daytime): <u>949-872-9565</u></p> <p>E-mail address: <u>geoboden@geobodeninc.com</u></p> <p>6. Report Date(s): <u>August 23, 2023</u></p>
--	--

7. Status of project: Proposed Under Construction Storm Damage

8. Previous site reports? YES if yes, give date(s) of report(s) and name of company who prepared report(s)

9. Previous Department actions? YES if yes, provide dates and attach a copy to expedite processing.

Dates: _____ log # 126734

10. Applicant Signature: [Signature] Position: Soils Eng.

(DEPARTMENT USE ONLY)

REVIEW REQUESTED	FEES	REVIEW REQUESTED	FEES
<input checked="" type="checkbox"/> Soils Engineering		No. of Lots	
<input type="checkbox"/> Geology		No. of Acres	
<input type="checkbox"/> Combined Soils Engr. & Geol.		<input type="checkbox"/> Division of Land	
<input type="checkbox"/> Supplemental		Other	
<input type="checkbox"/> Combined Supplemental		<input checked="" type="checkbox"/> Expedite	90.75
<input type="checkbox"/> Import-Export Route		<input checked="" type="checkbox"/> Response to Correction	181.50
Cubic Yards: _____		<input type="checkbox"/> Expedite ONLY	
		Sub-total	272.25
		Surcharges	69.91
		TOTAL FEE	342.14

Fee Due: 342.14
Fee Verified By: Am Date: 8/24/23
(Cashier Use Only)

Receipt #

1661189

Paid on
8/29/23

ACTION BY: _____

THE REPORT IS: NOT APPROVED

APPROVED WITH CONDITIONS BELOW ATTACHED

For Geology	_____	Date	_____
For Soils	_____	Date	_____

Sherman Way Mixed Use Project Noise Analysis

Prepared for:

**Lion Signature
Attn: Eric Lieberman
6362 Van Nuys Boulevard
Van Nuys, CA 91401**

Prepared By:

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c o n s u l t i n g

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I. INTRODUCTION AND SUMMARY

1. PURPOSE OF ANALYSIS AND STUDY OBJECTIVES

This Noise Impact Study has been prepared by EcoTierra Consulting to determine the noise impacts associated with the construction and operation of the Sherman Way Mixed-Use Project. The following is provided in this report:

- A description of the study area and the project.
- Information regarding the fundamentals of noise.
- Information regarding the fundamentals of vibration.
- A description of the local noise guidelines and standards.
- An evaluation of the current noise environment.
- An analysis of the potential short-term construction-related noise and vibration impacts from the project.
- An analysis of long-term operations-related noise and vibration impacts from the project.
- An evaluation of airport-related noise impacts to the project.

2. PROJECT LOCATION

The project site is located at 16949-16955 W. Sherman Way (APN 2227-003-017) in the City of Los Angeles. A vicinity map showing the project location is provided on **Figure 1, Project Location Map**.

3. PROJECT DESCRIPTION

The project includes demolition of an existing 4,212 square foot (SF) building, together with approximately 45,000 SF of surface parking lot and construction of a new, 4-story, 110,891 SF mixed-use building which includes 111 apartments and 5,300 SF of retail uses, on top of a 182-space, approximately 72,800 SF subterranean parking structure, on 1.13 acres. **Figure 2, Site Plan**, illustrates the proposed site plan.

The project is anticipated to be built in one phase with demolition/construction to start no sooner than September 2023 and take approximately 2 years to complete. The project is anticipated to be operational in 2025. The project would include approximately 23,000 cubic yards (CY) of export

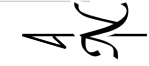
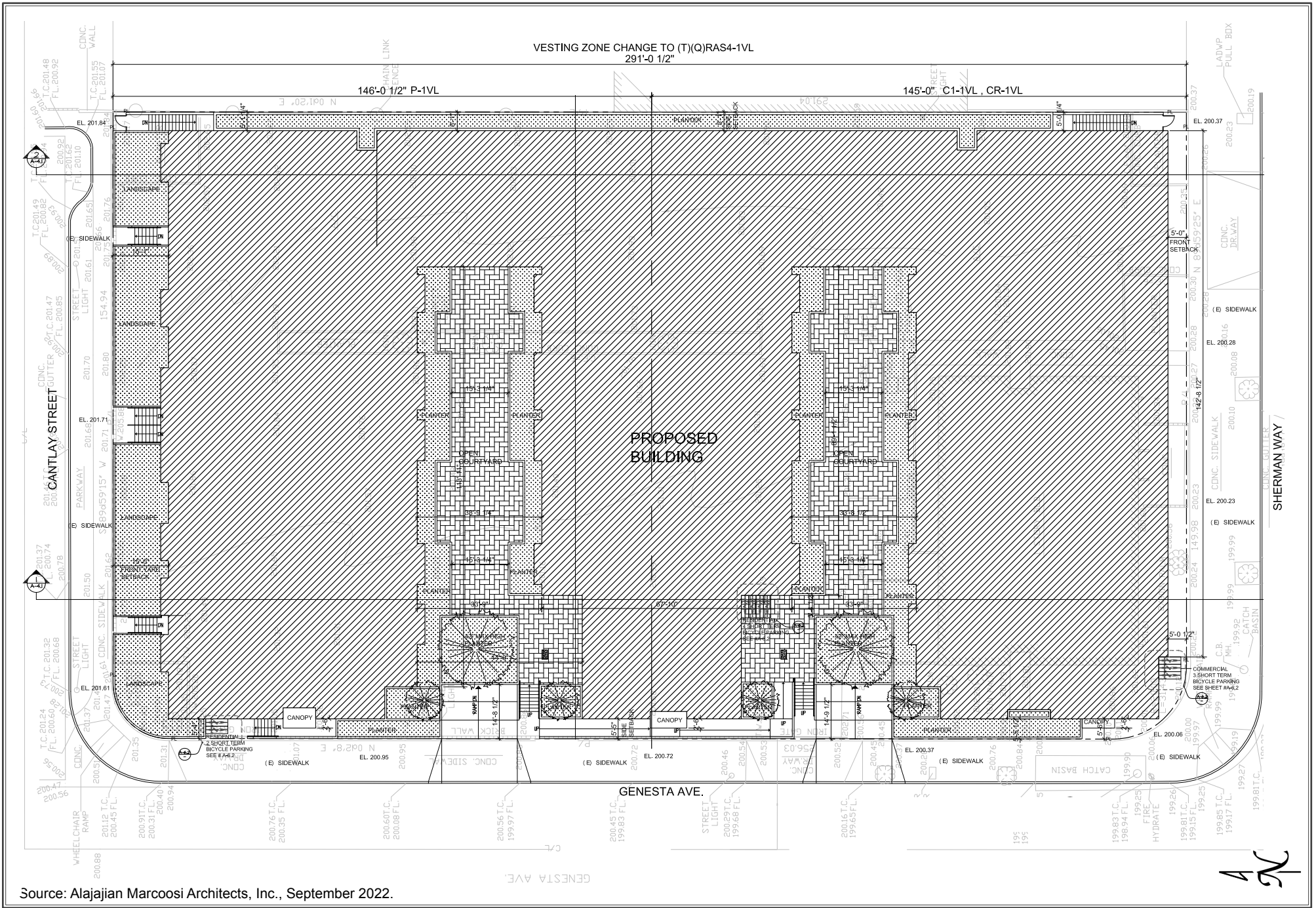


Figure 2
Site Plan

4. SUMMARY OF IMPACTS

A. Construction Noise Impacts

Construction noise levels were modeled for each phase using methodology presented in the Road Construction Noise Model (RCNM) User's Guide. With incorporation of mitigation measure **MM NOI-1** (see Section VII of this report for details on **MM NOI-1**), impacts from construction noise will be less than significant.

B. Operational Noise Impacts

The project would not result in a perceptible increase in noise due to the increase of project-related traffic on roadways in the project vicinity. As the project-related increase in traffic noise does not exceed 3 dBA, the project would not contribute to a substantial permanent increase in ambient noise levels in the project vicinity. Impacts are considered less than significant.

On-site noise sources (HVAC, roof terrace and parking structure) associated with the project will not result in a significant increase in ambient noise levels at the closest receptor locations. Impacts related to project operational noise will be less than significant.

C. Vibration Impacts

With incorporation of mitigation measures **MM NOI-2**, **MM NOI-3** and project design feature **PDF NOI-1**, groundborne vibration levels associated with vibration-generating equipment that may be utilized during project construction would not exceed any FTA human annoyance or damage criteria (see Section VII of this report for details on **MM NOI-2**, **MM NOI-3** and **PDF NOI-1**). The project will not be a source of operational vibration.

D. Airport Impacts

The project is not located within an airport noise contour and airport-related noise impacts are considered to be less than significant.

II. NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit, which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies that are audible to the human ear.

1. NOISE DESCRIPTIONS

Noise equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in dBA. The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour L_{eq} is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Sound Level (L_{dn}) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the L_{dn} , except that it has another addition of 4.77 dB to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these times because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound is perceived to be louder in the evening and nighttime hours and is weighted accordingly. Many cities rely on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

Another noise descriptor that is used primarily for the assessment of aircraft noise impacts is the Sound Exposure Level, which is also called the Single Event Level (SEL). The SEL descriptor represents the acoustic energy of a single event (i.e., an aircraft overflight) normalized to one-second event duration. This is useful for comparing the acoustical energy of different events involving different durations of the noise sources. The SEL is based on an integration of the noise during the period when the noise first rises within 10 dBA of its maximum value and last falls below 10 dBA of its maximum value. The SEL is often 10 dBA greater, or more, than the L_{MAX} since the SEL logarithmically adds the L_{eq} for each second of the duration of the noise.

2. TONE NOISE

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown the humans are more perceptible to changes in noise levels of a pure tone (Caltrans 1998). For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by: 5 dB for center frequencies of 500 Hertz (Hz) and above; by 8 dB for center frequencies between 160 and 400 Hz; and by 15 dB for center frequencies of 125 Hz or less (Department of Health Services 1977).

3. NOISE PROPAGATION

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects, and refraction, and shielding by natural and manmade features. Sound from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

4. GROUND ABSORPTION

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models: soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone, and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. To be conservative, hard-site conditions were used in this analysis where applicable.

5. TRAFFIC NOISE PREDICTION

The level of traffic noise depends on the three primary factors: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater number of trucks. Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. Because of the logarithmic nature of traffic noise levels, a doubling of the traffic volume (assuming that the speed and truck mix do not change) results in a noise level increase of 3 dBA. Based on the FHWA community noise assessment criteria, this change is “barely perceptible,” for reference a doubling of perceived noise levels would require an increase of approximately 10 dBA. However, the 1992 findings of Federal Interagency Committee on Noise (FICON), which assessed changes in ambient noise levels resulting from aircraft operations, found that noise increases as low as 1.5 dB can cause annoyance, when the existing noise levels are already greater than 65 dB. The truck mix on a given roadway also has an effect on community noise levels. As the number of heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise levels increase.

6. NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. For a noise barrier to work, it must be high enough and long enough to block the view of a road. A noise barrier is most effective when placed close to the noise source or receiver. A noise barrier can achieve a 5-dBA noise level reduction when it is tall enough to break the line-of-sight. When the noise barrier is a berm instead of a wall, the noise attenuation can be increased by another 3 dBA.

III. GROUND BORNE VIBRATION FUNDAMENTALS

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

1. VIBRATION DESCRIPTORS

Several different methods are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (RMS) amplitude of the vibration velocity. Because of the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as L_v and is based on the RMS velocity amplitude. A commonly used abbreviation is VdB, which in this text, is when vibration level (L_v) is based on the reference quantity of 1 microinch per second.

The PPV is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts to buildings.¹ The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body.² Decibel notation (VdB) is commonly used to express RMS vibration velocity amplitude. The relationship of PPV to RMS velocity is expressed in terms of the “crest factor,” defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity; FTA uses a crest factor of 4.³ The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment.⁴

Groundborne noise specifically refers to the rumbling noise emanating from the motion of building room surfaces due to the vibration of floors and walls; it is perceptible only inside buildings.⁵ The relationship between groundborne vibration and groundborne noise depends on the frequency of the vibration and

¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.*

² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.*

³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 5.1, 2018.*

⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 6.1, 6.2, and 6.3, 2018.*

⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 5.4, 2018.*

the acoustical absorption characteristics of the receiving room. For typical buildings, groundborne vibration that causes low frequency noise (i.e., the vibration spectrum peak is less than 30 Hz) results in a groundborne noise level that is approximately 50 decibels lower than the velocity level. For groundborne vibration that causes mid-frequency noise (i.e., the vibration spectrum peak is 30 to 60 Hz), the groundborne noise level will be approximately 35 to 37 decibels lower than the velocity level.⁶ Therefore, for typical buildings, the groundborne noise decibel level is lower than the groundborne vibration velocity level.

2. VIBRATION PERCEPTION

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Offsite sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible groundborne noise or vibration. **Figure 3, Common Vibration Source Levels (VdB) and Human Response**, illustrates common vibration sources and the human and structural responses to ground-borne vibration. As shown in the figure, the threshold of perception for human response is approximately 65 VdB; however, human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. Vibration tolerance limits for sensitive instruments such as magnetic resonance imaging (MRI) or electron microscopes could be much lower than the human vibration perception threshold.

3. VIBRATION FUNDAMENTALS AND PROPAGATION

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Since energy is lost during its transfer from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard.⁷ In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as rubber-tired buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction activities, such as blasting, pile-driving, and operation of heavy earth-

⁶ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Table 6-3 and Table 6-14, pages 126 and 146, 2018.

⁷ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, Section 7, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed February 16, 2021.

moving equipment.⁸ Groundborne vibration generated by man-made activities (e.g., road traffic, construction operations) typically weakens with greater horizontal distance from the source of the vibration.

The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform median, while groundborne vibrations travel through the earth, which may contain significant geological differences. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, or side-to-side and perpendicular to the direction of propagation.

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

4. CONSTRUCTION-RELATED VIBRATION LEVEL PREDICTION

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. **Table 1, Vibration Source Levels for Construction Equipment**, gives approximate vibration levels for particular construction activities. The data in provides a reasonable estimate for a wide range of soil conditions.

⁸ *Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, Section 7, 2018.*

Table 1
Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second) at 25 feet	Approximate Vibration Level (L_v) at 25 feet
Pile driver (impact)	1.518 (upper range) 0.644 (typical)	112 104
Pile driver (sonic)	0.734 upper range 0.170 typical	105 93
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	0.008 in soil 0.017 in rock	66 75
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58
<i>Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, Table 7-4. September 2018.</i>		

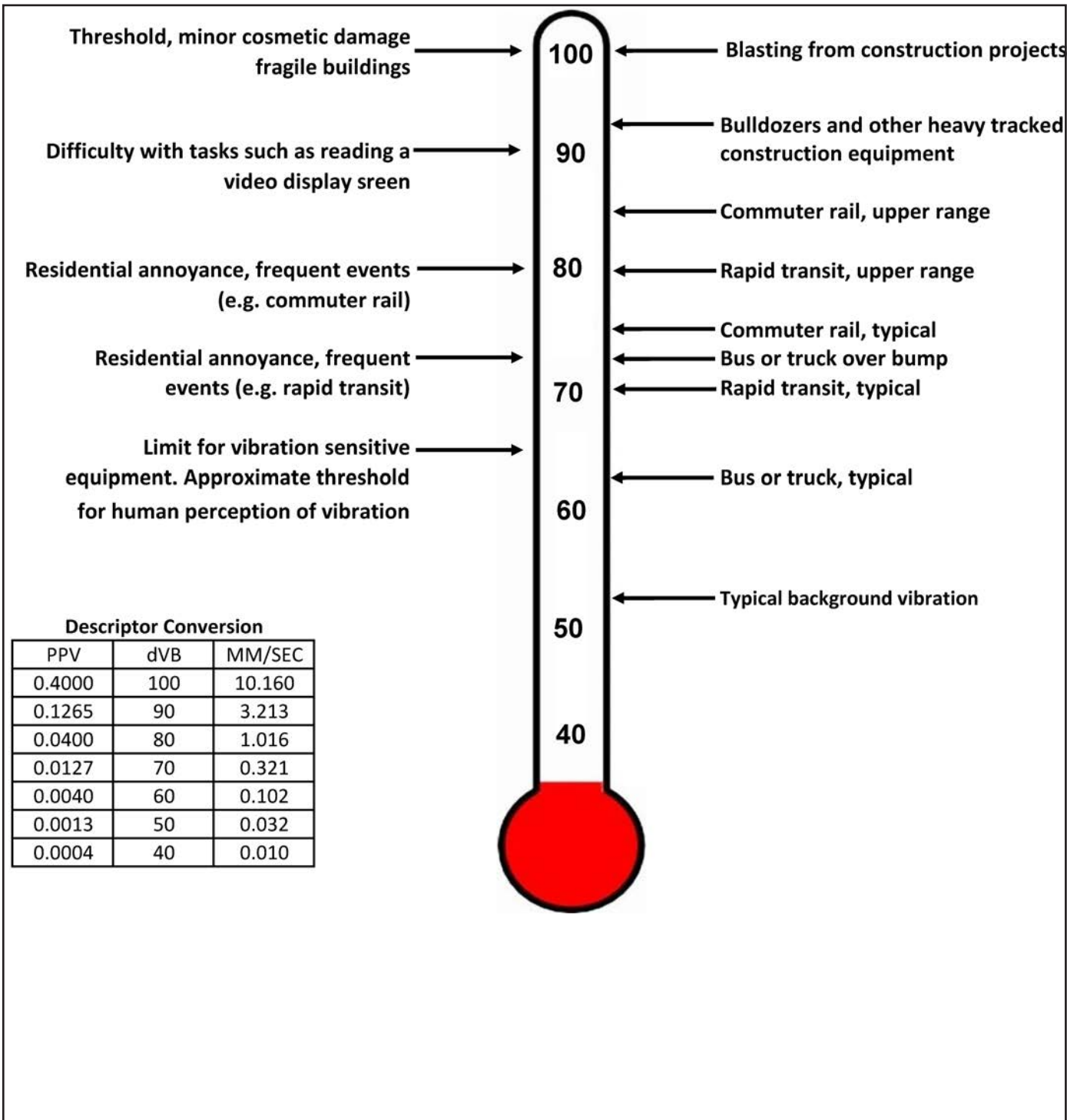


Figure 3
Common Vibration Source Levels (VdB) and Human Response

IV. REGULATORY SETTING

The project is located in the City of Los Angeles and noise regulations are addressed through the efforts of various federal, State, and local government agencies. The agencies responsible for regulating noise are discussed below.

1. FEDERAL REGULATIONS

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce.
- Assisting state and local abatement efforts.
- Promoting noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency limits noise exposure of workers to 90 dB L_{eq} or less for 8 continuous hours or 105 dB L_{eq} or less for 1 continuous hour. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Since the federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

There are no federal vibration standards or regulations adopted by any agency that are applicable to evaluating vibration impacts from land use development projects such as the project. However, the FTA has adopted vibration criteria for use in evaluating vibration impacts from construction activities.¹ The

¹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Table 7-5, page 186, 2018.*

vibration damage criteria adopted by the FTA are shown in **Table 2, Construction Vibration Damage Criteria**.

Table 2
Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
I. Reinforced-concrete, steel, or timber (no plaster)	0.50
II. Engineered concrete and masonry (no plaster)	0.30
III. Non-engineered timber and masonry buildings	0.20
IV. Buildings extremely susceptible to groundborne vibration damage	0.12
<i>Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, September 2018.</i>	

The FTA has also adopted standards associated with human annoyance for determining the groundborne vibration and noise impacts from ground-borne noise on the following three off-site land-use categories: Vibration Category 1 – High Sensitivity, Vibration Category 2 – Residential, and Vibration Category 3 – Institutional.² The FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but that still potentially involve activities that could be disturbed by vibration. The vibration thresholds associated with human annoyance for these three land-use categories are shown in **Table 3, Groundborne Vibration and Groundborne Noise Impact Criteria**. No thresholds have been adopted or recommended for commercial or office uses.

Table 3
Groundborne Vibration and Groundborne Noise Impact Criteria

Land Use Category	Frequent Events ^a	Occasional Events ^b	Infrequent Events ^c
Category 1	65 VdB ^d	65 VdB ^d	65 VdB ^d
Category 2	72 VdB	75 VdB	80 VdB
Category 3	75 VdB	78 VdB	83 VdB
^a "Frequent Events" is defined as more than 70 vibration events of the same source per day. ^b "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. ^c "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. ^d This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. <i>Source: FTA, Transit Noise and Vibration Impact Assessment Manual, September 2018.</i>			

² Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Table 6-1, page 124, 2018.*

2. STATE REGULATIONS

Though not adopted by law, the State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (OPR) (OPR Guidelines), provides guidance for the compatibility of projects within areas of specific noise exposure. The OPR Guidelines identify the suitability of various types of construction relative to a range of outdoor noise levels and provide each local community some flexibility in setting local noise standards that allow for the variability in community preferences. Findings presented in the Levels of Environmental Noise Document (EPA 1974) influenced the recommendations of the OPR Guidelines, most importantly in the choice of noise exposure metrics (i.e., L_{dn} or CNEL) and in the upper limits for the normally acceptable outdoor exposure of noise-sensitive uses.

The OPR Guidelines include a Noise and Land Use Compatibility Matrix which identifies acceptable and unacceptable community noise exposure limits for various land use categories. Where the "normally acceptable" range is used, it any special acoustical is defined as the highest noise level that should be considered for the construction of the buildings which do not incorporate treatment or noise mitigation. The "conditionally acceptable" or "normally unacceptable" ranges include conditions calling for detailed acoustical study prior to the construction or operation of the project. The City of Los Angeles has adopted their own version of the State Land Use Compatibility Guidelines for land use planning and to assess potential transportation noise impacts to proposed land uses (see **Table 4, Guidelines for Noise Compatible Land Use**).

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

A. California Environmental Quality Act

The California Environmental Quality Act Guidelines (Appendix G) establishes thresholds for noise impact analysis. This noise study includes analysis of noise and vibration impacts necessary to assess the project in light of the following Appendix G Checklist Thresholds.

Would the project result in:

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?

b) Generate excessive groundborne vibration or groundborne noise levels?

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

3. LOCAL REGULATIONS

The City of Los Angeles General Plan and Municipal Code establish the following applicable goals policies related to noise and vibration.

A. City of Los Angeles General Plan

The Noise Element of the City's General Plan (adopted February 1999) incorporates noise standards for various land uses, which are based on the OPR's Noise Element Guidelines. **Table 3, Guidelines for Noise Compatible Land Use**, presents the City's noise guidelines for land use planning. The objective of the noise compatibility guidelines is to provide a means of identifying acceptable noise exposure levels for a proposed use in relation to the existing noise environment.

The Noise Element of the City's General Plan policies include the CNEL guidelines for land use compatibility as shown in **Table 4, Guidelines for Noise Compatible Land Use**, and includes a number of goals, objectives, and policies for land use planning purposes. The overall purpose of the Noise Element is to guide policymakers in making land use determinations and in preparing noise ordinances that would limit exposure of citizens to excessive noise levels.³ The following policies and objectives from the Noise Element apply to the project.

³ City of Los Angeles. General Plan, Noise Element adopted February 3, 1999. Pages 1.1-2.4. https://planning.lacity.org/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise_Element.pdf. Accessed February 16, 2021.

Objective 2 (Non-airport): Reduce or eliminate non-airport related intrusive noise, especially relative to noise sensitive uses.

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 impact associated with proposed development of land and changes in land use.

Policy 3.1: Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

Exhibit I of the Noise Element also contains guidelines for noise compatible land uses.⁴ **Table 4, Guidelines for Noise Compatible Land Use**, summarizes these guidelines, which are based on OPR guidelines from 1990.

Table 4
Guidelines for Noise Compatible Land Use¹

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Residential Single Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

A Normally acceptable. Specified land use is satisfactory, based upon assumption buildings involved are conventional construction, without any special noise insulation.

C Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning normally will suffice.

N Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U Clearly unacceptable. New construction or development generally should not be undertaken.

¹ Based on the Governor’s Office of Planning and Research, “General Plan Guidelines,” 1990. To help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels.

Source: Noise Element of the Los Angeles City General Plan, adopted February 1999.

⁴ City of Los Angeles. General Plan, Noise Element adopted February 3, 1999. Page I-1. https://planning.lacity.org/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise_Element.pdf. Accessed February 16, 2023.

B. City of Los Angeles Municipal Code

In addition to any measures to reduce noise levels recommended in this report, project operations will be subject to City ordinances.

The City of Los Angeles Noise Regulations are provided in Chapter XI of the Los Angeles Municipal Code (LAMC). LAMC Section 111.02 provides procedures and criteria for the measurement of the sound level of “offending” noise sources. In accordance with the LAMC, a noise source that causes a noise level increase of 5 dBA over the existing average ambient noise level as measured at an adjacent property line creates a noise violation. This standard applies to radios, television sets, air conditioning, refrigeration, heating, pumping, and filtering equipment, powered equipment intended for repetitive use in residential areas, and motor vehicles driven on-site. To account for people’s increased tolerance for short-duration noise events, the Noise Regulations provide a 5 dBA allowance for a noise source that causes noise lasting more than 5 but less than 15 minutes in any one-hour period, and an additional 5 dBA allowance (for a total of 10 dBA) for a noise source that causes noise lasting 5 minutes or less in any one-hour period.⁵

The LAMC provides that in cases where the actual ambient conditions are not known, the City’s presumed daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) minimum ambient noise levels as defined in LAMC Section 111.03 should be used. The presumed ambient noise levels for these areas where the actual ambient conditions are not known as set forth in the LAMC Sections 111.03 are provided in **Table 5, City of Los Angeles Presumed Ambient Noise Levels**. For example, for residential-zoned areas, the presumed ambient noise level is 50 dBA during the daytime and 40 dBA during the nighttime.

Table 5
City of Los Angeles Presumed Ambient Noise Levels

Zone	Daytime Hours (7 A.M. to 10 P.M.) dBA (L_{eq})	Nighttime Hours (10 P.M. to 7 A.M.) dBA (L_{eq})
Residential (A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5)	50	40
Commercial (P, PB, CR, C1, C1.5, C2, C4, C5, and CM)	60	55
Manufacturing (M1, MR1, and MR2)	60	55
Heavy Manufacturing (M2 and M3)	65	65

Source: City of Los Angeles Municipal Code, Chapter XI, Noise Regulation, Section 111.03, Table 2.

LAMC Section 112.02 limits increases in noise levels from air conditioning, refrigeration, heating, pumping, and filtering equipment. Such equipment may not be operated in such manner as to create any noise which would cause the noise level on the premises of any other occupied property, or, if a condominium,

⁵ Los Angeles Municipal Code, Chapter XI, Article I, Section 111.02-(b). Accessed February 16, 2023.

apartment house, duplex, or attached business, within any adjoining unit, to exceed the ambient noise level by more than 5 dB.

LAMC Section 112.05 sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard shall not apply where compliance therewith is technically infeasible.⁶ LAMC Section 41.40 prohibits construction between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, 6:00 p.m. and 8:00 a.m. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday between 7:00 a.m. to 9:00 p.m.; and Saturdays and National Holidays between 8:00 a.m. to 6:00 p.m.). In general, the City's Department of Building and Safety enforces Noise Ordinance provisions relative to equipment and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

LAMC Section 113.01 prohibits collecting or disposing of rubbish or garbage, operating any refuse disposal truck, or collecting, loading, picking up, transferring, unloading, dumping, discarding, or disposing of any rubbish or garbage, as such terms are defined in LAMC Section 66.00, within 200 feet of any residential building between the hours of 9:00 p.m. and 6:00 a.m. of the following day, unless a permit therefore has been duly obtained beforehand from the Board of Police Commissioners.

Section 91.1207.14.2 prohibits interior noise levels attributable to exterior sources from exceeding 45 dBA in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the CNEL, consistent with the noise element of the local general plan.

⁶ *In accordance with the City's Noise Ordinances, "technically feasible" means that the established noise limitations can be complied with at a project site, with the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment.*

V. EXISTING NOISE CONDITIONS

To determine the existing noise level environment, short-term noise measurements were taken in the project study area at three locations in the project vicinity. The following describes the measurement procedures, measurement locations, and the noise measurement results.

1. MEASUREMENT PROCEDURE AND CRITERIA

To ascertain the existing noise at and adjacent to the project site, field monitoring was conducted on May 31, 2022. The field survey noted that noise within the project area is generally characterized by traffic with the occasional fixed-wing aircraft and/or helicopter passing overhead.

A. Noise Measurement Equipment

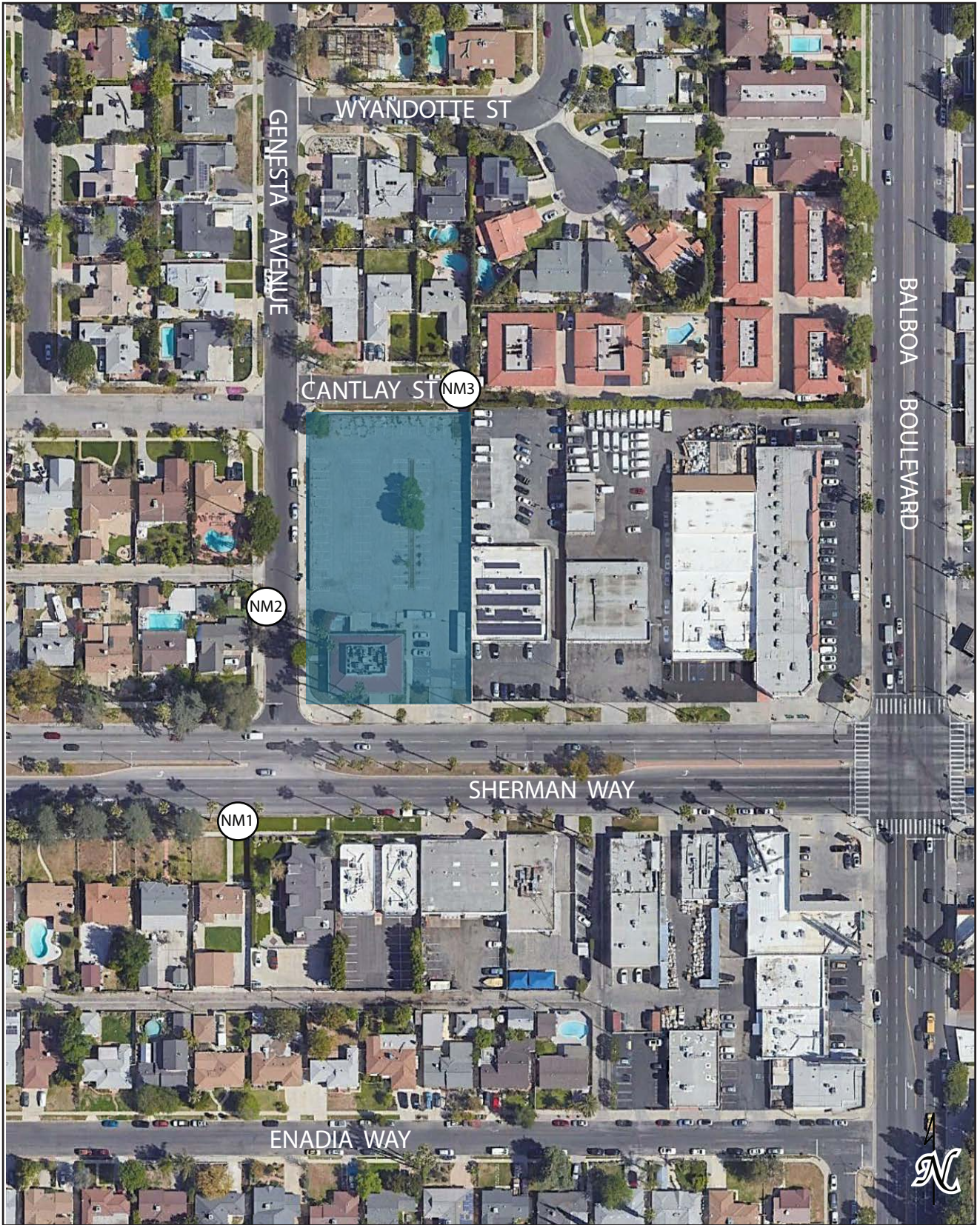
Noise monitoring was performed using an American National Standards Institute (ANSI Section S14 1979, Type 1) Larson Davis model LxT sound level meter. The sound level meter was programmed in “slow” mode to record the sound pressure level at one second intervals for in A-weighted form. The sound level meter and microphone were mounted approximately five feet above the ground and equipped with a windscreen during all measurements. The sound level meter was calibrated before monitoring using Larson Davis Cal 250. The noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (S1.4-1983 identified in Chapter 19.68.020.AA).

B. Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise measurements of the current noise sources impacting the vicinity of the project site and to provide a baseline for any potential noise impacts that may be created by development of the project. The sites are shown in **Figure 4, Noise Monitoring Locations**, on the following page. **Appendix A** (of this analysis technical report) includes a photographic index of the study area and noise level measurement locations.

C. Noise Measurement Timing and Climate

The noise measurements were recorded between 2:02 PM and 3:27 PM on May 31, 2022. At the start of the noise monitoring, the temperature was 80°F, 10 percent humidity, clear, sunny skies, and calm wind conditions (3-5 mph).



- Project Site
- (NM#) Noise Measurement Locations

Source: Google Earth, March 2020.

Figure 4
Noise Measurement Location Map

2. NOISE MEASUREMENT RESULTS

The noise measurements were taken at three (3) locations in the project vicinity. The results of the noise level measurements are provided below in **Table 6, Existing Noise Level Measurements (dBA)**.

Table 6
Existing Noise Level Measurements (dBA)

Site Location	Description	L _{eq}	L _{MAX}	L _{MIN}
NM 1	On the sidewalk adjacent to the single-family residential use located south of Sherman Way and west of Genesta Avenue, approximately 134 feet southwest of the project site	70.3	78.9	47.7
NM 2	On the sidewalk adjacent to the single-family residential use located west of Genesta Avenue and north of Sherman Way, approximately 50 feet west of the project site	56.4	70.7	46.2
NM 3	At the end of the cul-de-sac of Cantlay Street, east of Genesta Avenue, in proximity to the single family residential uses located on the northern side of Cantlay Street and the multifamily residential uses located adjacent to the northeastern corner of the project site.	55.6	70.4	43.3

As shown in **Table 6**, receptors in the project vicinity are subject to average noise levels ranging from 55.6 dBA L_{eq} to 70.3 dBA L_{eq} , with maximum noise levels reaching as high as 78.9 dBA adjacent to the residential uses along Sherman Way.

VI. NOISE AND VIBRATION IMPACT ANALYSES

Consistent with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, a significant impact related to noise would occur if a project is determined to result in:

- Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- Exposure of persons residing or working in the project area to excessive noise levels from aircraft.

According to the CEQA checklist, to determine whether impacts to noise resources are significant environmental effects, the following thresholds are analyzed and evaluated:

- Exceedance of noise standards for construction and operational noise.
- Construction noise.
- Groundborne vibration.
- Operational noise.
- Airport noise.

Each of these thresholds is analyzed below.

1. EXCEEDANCE OF NOISE STANDARDS

This impact discussion analyzes the potential for project construction noise to cause an exposure of persons to or generation of noise levels in excess of established City of Los Angeles noise standards or applicable standards of other agencies.

Noise levels in the project area would be influenced by construction activities.

A. Construction Noise

As stated previously, LAMC Section 112.05 sets a maximum noise level for construction equipment of 75 dBA at a distance of 50 feet when operated within 500 feet of a residential zone. Compliance with this standard shall not apply where compliance therewith is technically infeasible.¹ LAMC Section 41.40 prohibits construction between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, 6:00 p.m. and 8:00 a.m. on Saturday, and at any time on Sunday (i.e., construction is allowed Monday through Friday

¹ In accordance with the City's Noise Ordinances, "technically feasible" means that the established noise limitations can be complied with at a project site, with the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques employed during the operation of equipment.

between 7:00 a.m. to 9:00 p.m.; and Saturdays and National Holidays between 8:00 a.m. to 6:00 p.m.). In general, the City's Department of Building and Safety enforces Noise Ordinance provisions relative to equipment and the Los Angeles Police Department (LAPD) enforces provisions relative to noise generated by people.

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, single and multiple-family residential, including transient lodging, motels and hotel uses make up the majority of these areas. The closest receptors to the project site include: the multi-family residential uses located adjacent to the northeastern corner of the site, the single-family residential uses located approximately 40 feet north of the site, north of Cantlay Street; the single-family residential uses located approximately 50 feet west of the site, west of Genesta Avenue; and the single-family residential uses located approximately 134 feet southwest of the site, south of Sherman Way. Please see **Figure 4, Noise Monitoring Locations** above and **Table 7**, below.

Short-term noise impacts could occur during construction activities from either the noise impacts created from the transport of workers and movement of construction materials to and from the project site, or from the noise generated onsite during: demolition, site preparation/foundation work, building, and architectural coating activities.

Construction noise levels will vary significantly based upon the size and topographical features of the active construction zone, duration of the work day, and types of equipment employed, as indicated in **Table 8, Typical Construction Equipment Noise Levels**. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Although there would be a relatively high single event noise exposure potential, resulting in potential short-term intermittent annoyances, the effect in long-term ambient noise levels would be small when averaged over longer time. As shown by the ambient noise level measurements in **Table 6, Existing Noise Level Measurements** (see Section V. Existing Noise Conditions of this report), the project vicinity is already exposed to a maximum noise level of 78.9 dBA.

Construction noise associated with the project was calculated utilizing methodology presented in the FTA Transit Noise and Vibration Impact Assessment Manual (2018) together with several key construction parameters including: distance to each sensitive receiver, equipment usage, percent usage factor, and baseline parameters for the project site (see **Appendix C** for details). Distance to receptor calculated from the façade of the receptor to the project boundary line.

Table 7
Closest Sensitive Receptors to the Project Site

Type of use	Description	Closest Noise Measurement Location ID	Structure type/FTA building category	Distance from the façade of the receptor to the project boundary
Residential	Multi-family residential uses located adjacent to the northeastern corner of the project site (7231-7251 Balboa Blvd), east of the cul-de-sac of Cantlay Street	NM3	II. Engineered concrete and masonry (no plaster)	~35 feet
Residential	Single-family residential uses located north of the project site (16943-16955 Cantlay St), on the northern side of Cantlay Street, east of Genesta Avenue.	NM3	III. Non-engineered timber and masonry buildings	~75 feet
Residential	Single-family residential uses located northwest of the project site (7233 Genesta Ave), on the northern side of Cantlay Street, west of Genesta Avenue.	NM3	III. Non-engineered timber and masonry buildings	~120 feet
Residential	Single-family residential uses located west of the project site, west of Genesta Avenue (17000 Cantlay St and 17001 Sherman Way).	NM2	III. Non-engineered timber and masonry buildings	~65 feet
Residential	Single-family residential use located southwest of the project site (17000 Sherman Way), on the south side of Sherman Way, west of Genesta Ave.	NM1	III. Non-engineered timber and masonry buildings	~185 feet

Construction noise levels were calculated for each phase. To be conservative, the noise generated by each piece of equipment was added together for each phase of construction; however, it is unlikely (and unrealistic) that every piece of equipment will be used at the same time, at the same distance from the receptor, for each phase of construction. Furthermore, the construction noise levels reported are conservative and do not take into account any attenuation afforded by intervening structures/buildings/walls which would reduce noise levels at receptor locations by blocking the line-of-sight between the receptor and the construction activities.

**Table 8
Typical Construction Equipment Noise Levels**

Equipment Description	Impact Device?	Acoustical use Factor (%)	Typical Noise Level @ 50ft (Lmax dBA)
Compressor (air)	No	40	78
Concrete Mixer Truck	No	40	79
Concrete Pump	No	20	81
Concrete Saw	No	20	90
Crane	No	16	81
Drill Rig	No	20	79
Dozer	No	40	82
Forklift ^{a, b}	No	50	61
Front End Loader	No	40	79
Generator	No	50	81
Grader	No	40	85
Haul/Dump Truck	No	40	76
Paver	No	50	77
Pickup Truck	No	50	77
Roller	No	20	80
Tractor/Loader Backhoe	No	40	79
Welder/Torch	No	40	74
^a Warehouse & Forklift Noise Exposure - NoiseTesting.info Carl Stautins, November 4, 2014 http://www.noisetesting.info/blog/carl-strautins/page-3/ ^b Data provided Leq as measured at the operator. Sound Level at 50 feet is estimated. Source: FHWA RCNM User's Guide, 2006.			

**Table 9
Construction Noise Levels (by Phase) at Nearest Receptors**

Construction Phase	Receptor Location	Construction Noise Levels (dBA Leq) ¹	Allowable Noise Threshold (dBA)	Exceeds Threshold?
Demolition	Multi-family residential adjacent to the Northeast (NM3)	88.6	75	Yes
	Closest Residential Receptors to the North (NM3)	82.0	75	Yes
	Closest Residential Receptors to the Northwest (NM3)	77.9	75	Yes
	Closest Residential Receptors to the West (NM2)	83.3	75	Yes
	Closest Residential Receptors to the Southwest (NM1)	74.2	75	No
Site Preparation /Foundation	Multi-family residential adjacent to the Northeast (NM3)	87.6	75	Yes
	Closest Residential Receptors to the North (NM3)	81.0	75	Yes
	Closest Residential Receptors to the Northwest (NM3)	76.9	75	Yes
	Closest Residential Receptors to the West (NM2)	82.3	75	Yes
	Closest Residential Receptors to the Southwest (NM1)	73.2	75	No
Building Construction	Multi-family residential adjacent to the Northeast (NM3)	84.6	75	Yes
	Closest Residential Receptors to the North (NM3)	77.9	75	Yes
	Closest Residential Receptors to the Northwest (NM3)	73.9	75	No
	Closest Residential Receptors to the West (NM2)	79.2	75	Yes

**Table 9
Construction Noise Levels (by Phase) at Nearest Receptors**

Construction Phase	Receptor Location	Construction Noise Levels (dBA Leq) ¹	Allowable Noise Threshold (dBA)	Exceeds Threshold?
	Closest Residential Receptors to the Southwest (NM1)	70.1	75	No
Architectural Coating	Multi-family residential adjacent to the Northeast (NM3)	78.1	75	Yes
	Closest Residential Receptors to the North (NM3)	71.5	75	No
	Closest Residential Receptors to the Northwest (NM3)	67.4	75	No
	Closest Residential Receptors to the West (NM2)	72.7	75	No
	Closest Residential Receptors to the Southwest (NM1)	63.6	75	No

¹ Construction noise level calculations for each phase of construction at each receptor available in **Appendix C** of this report.

As shown in **Table 9, Construction Noise Levels (by Phase) at Nearest Receptors** above, without incorporation of any mitigation, in the form of best management practices (BMPs), the highest construction noise levels at the most-impacted sensitive receptors located south of the project site could reach up to 88.6 dBA L_{eq} during the site demolition phase of construction, which would exceed the 75 dBA construction noise level defined by the Section 41.40 of the LAMC. However, the sensitive receptor located furthest from the project site, southwest of the project site (17000 Sherman Way), on the south side of Sherman Way, west of Genesta Avenue, would not be impacted by construction noise as the noise levels during all stages of construction do not exceed 75 dBA at that location. Therefore, any other sensitive receptors located 185 feet or greater from the project would also not be impacted by construction noise.

Therefore, mitigation, in the form of BMPs to reduce construction noise would need to be incorporated. See **Table 10, Construction Noise Levels With BMPs (by Phase) at Affected Receptors**, below for details on the reductions in noise levels at receptor locations from incorporation of BMP construction noise mitigation.

Table 10
Construction Noise Levels With Mitigation (by Phase) at Affected Receptors

Construction Phase	Receptor Location	Construction Noise Levels With BMPs (dBA Leq) ¹	Allowable Noise Threshold (dBA)	Exceeds Threshold?
Demolition	Multi-family residential adjacent to the Northeast (NM3)	73.6	75	No
	Closest Residential Receptors to the North (NM3)	67.0	75	No
	Closest Residential Receptors to the Northwest (NM3)	62.9	75	No
	Closest Residential Receptors to the West (NM2)	68.3	75	No
Site Preparation/Foundation	Multi-family residential adjacent to the Northeast (NM3)	72.6	75	No
	Closest Residential Receptors to the North (NM3)	66.0	75	No
	Closest Residential Receptors to the Northwest (NM3)	61.9	75	No
	Closest Residential Receptors to the West (NM2)	67.3	75	No
Building Construction	Multi-family residential adjacent to the Northeast (NM3)	69.6	75	No
	Closest Residential Receptors to the North (NM3)	62.9	75	No
	Closest Residential Receptors to the Northwest (NM3)	58.9	75	No
	Closest Residential Receptors to the West (NM2)	64.2	75	No
Architectural Coating	Multi-family residential adjacent to the Northeast (NM3)	63.1	75	No
	Closest Residential Receptors to the North (NM3)	56.5	75	No

**Table 10
Construction Noise Levels With Mitigation (by Phase) at Affected Receptors**

Construction Phase	Receptor Location	Construction Noise Levels With BMPs (dBA Leq) ¹	Allowable Noise Threshold (dBA)	Exceeds Threshold?
	Closest Residential Receptors to the Northwest (NM3)	52.4	75	No
	Closest Residential Receptors to the West (NM2)	57.7	75	No

¹ Includes attenuation from the use of a temporary noise barrier and/or mufflers that would reduce noise levels by 15 dBA.

As shown in **Table 10**, above, with incorporation of BMPs such as mufflers and/or use temporary construction noise barriers (where feasible) that provide approximately 15 dBA reduction during all phases of construction at receptors located closest to the northern, northwestern, northeastern and western boundaries of project site, construction noise levels would not exceed the applicable standard of 75 dBA at the nearby sensitive receptors. The use of an acoustical curtain, as a temporary construction noise barrier that blocks the line-of-sight between construction activities and receptors, can reduce noise impacts by up to 32 dBA.²

These industry-wide BMPs for construction in urban or otherwise noise-sensitive areas detailed in **MM NOI-1**, would be incorporated to attenuate construction noise levels to receptors located to the north, northeast, northwest and west.

Mitigation Measures

MM NOI-1

- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices capable of a 15 dBA reduction.
- Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- A temporary noise control barrier/sound curtain shall be installed on the property line of the construction site abutting/facing adjacent multi-family residential uses located to the northeast and the closest residential uses located to the north, northwest and west of the project site. The noise control barrier shall be engineered to block the line-of-sight from the residential uses to the

² Acoustical Surfaces, Inc. Temporary Exterior Quilted Curtains, website: https://www.acousticalsurfaces.com/curtan_stop/sound_blankets.htm.

construction activity and reduce construction-related noise levels at the adjacent residential structures with a goal of a reduction of 15 dBA. The supporting structure shall be engineered and erected according to applicable codes. The temporary barrier shall remain in place until all windows have been installed and all activities on the project site are complete.

Therefore, with compliance with City noise regulations and incorporation of **MM NOI-1**, construction noise impacts would be less than significant.

As noted above, LAMC Section 41.40 regulates noise from construction activities by regulating the days and hours during which construction may occur. The construction activities associated with the project would comply with these LAMC requirements. In addition, pursuant to LAMC Section 112.05, construction noise levels are exempt from the 75 dBA noise threshold if all technically feasible noise attenuation measures are implemented. In conformance with the requirements of LAMC Section 112.05, implementation of the aforementioned attenuation measures would reduce the noise levels associated with construction of the project to the maximum extent that is technically feasible. Thus, based on the provisions set forth in LAMC 112.05, implementation of the noise attenuation measures provided above would ensure the project would be consistent with the LAMC.

Off-Site Construction Noise Impacts

The highest potential for off-site construction noise is sourced from hauling trips. During the demolition duration of 20 days, the project would generate approximately 7 one-way haul truck trips per day travelling to and from the project site. During the site preparation/foundation duration of 180 days, the project would generate approximately 16 one-way haul truck trips per day travelling to and from the project site. The anticipated outbound haul route from the project site would be along Sherman Way to the I-405 freeway. Approximately 23,000 cubic yards of soil will be excavated and exported from the project site. There are mixed commercial and residential uses along the route. As shown in **Table 8**, above, typical noise from haul trucks driving by can reach up to 76 dBA L_{max} at a distance of 50 feet. As shown in **Table 6, Existing Noise Measurements (dBA)**, the existing noise level along Sherman Way is 78.9 dBA L_{max} , and the intermittent noise from haul trucks passing by would be less than the ambient noise levels. **Therefore, impacts from off-site construction noise would be less than significant and no mitigation measures would be required.**

2. GROUNDBORNE VIBRATION

This impact discussion analyzes the potential for the proposed project to cause an exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Vibration levels in the project area would be influenced by construction activities and from the ongoing operations of the proposed project.

As described in the 2018 Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*, groundborne vibration can be a serious concern for nearby neighbors of a transit

system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard.³ In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and certain construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment.⁴ Ground-borne vibration generated by man-made activities (e.g., road traffic, construction operations) typically weakens with greater horizontal distance away from the source of the vibration.

The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ground vibrations from construction activities rarely reach levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to a construction site.

A. Construction Vibration

Construction activities can produce vibration that may be felt by adjacent uses. The construction of the proposed project would not require the use of equipment such as pile drivers, which are known to generate substantial construction vibration levels. It is not anticipated that any pile drivers will be used in-site; however, project design feature **PDF NOI-1** has been included below to ensure this. The highest degree of groundborne vibration would be generated during the demolition phase due to the use of a large bulldozer and during the site preparation/foundation phase due to the operation of a bore/drill rig. Based on the FTA data (see **Table 1, Vibration Source Levels for Construction Equipment**), vibration velocities from both a large bulldozer and caisson drill operation are estimated to be approximately 0.089 inch-per-second PPV (87 VdB) at 25 feet from the source of activity.⁵

Annoyance to Persons

The primary effect of perceptible vibration is often a concern. However, secondary effects, such as the rattling of a china cabinet, can also occur, even when vibration levels are well below perception. Any effect (primary perceptible vibration, secondary effects, or a combination of the two) can lead to annoyance. The degree to which a person is annoyed depends on the activity in which they are participating at the time of the disturbance. For example, someone sleeping or reading will be more sensitive than someone who is running on a treadmill. Reoccurring primary and secondary vibration effects often lead people to

³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 7, 2018.*

⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, Section 7, 2018.*

⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual, September 2018.*

believe that the vibration is damaging their home, although vibration levels are well below minimum thresholds for damage potential.

Per the FTA Transportation and Construction Vibration Guidance Manual (May 2018), land uses sensitive to vibration include: buildings where people normally sleep, such as dwelling units, hotels, and hospitals; research and manufacturing facilities that are vibration-sensitive such as hospitals with vibration-sensitive equipment and universities conducting physical research operations; and institutions and offices that have vibration-sensitive equipment and have the potential for activity interference such as schools, churches, and doctors' offices. Further, the FTA states that commercial or industrial locations including office buildings are not included in this category, unless there is vibration-sensitive activity or equipment within the building.

The nearest off-site buildings to the area of construction activity with sensitive receptors are: the multi-family residential uses located approximately 35 feet from the northwestern corner of the project site, the single-family residential uses located approximately 75 feet to the north and the single-family residential uses located approximately 65 feet to the west. Other vibration sensitive receptors are located further from the Site and would have lower impacts.

As shown in **Table 3, Groundborne Vibration and Groundborne Noise Impact Criteria**, vibration from frequent events can be annoying to Category 2 uses (and any buildings where people sleep) at a level 72 VdB. At a distance of 35 feet, use of a large bulldozer or caisson drill would be expected to generate a vibration level of 82.62 VdB and at a distance of 65 feet that vibration level would be 74.55 VdB, and at 75 feet the vibration level would be 72.69 VdB.⁶ As the use of a large bulldozer or caisson drill at a distance less than 80 feet from the residential use would exceed 72 VdB for Category 2 land uses, mitigation to the adjacent sensitive land uses is required.

At a distance of 80 feet, use of a large bulldozer or caisson drill would generate a VdB of 71.9. Therefore, with incorporation of mitigation measure **MM NOI-2** below, which restricts use of a large bulldozer or caisson drill within 80 feet of the façade of the residential use located adjacent to the northeastern and closest to the northern and western boundaries of the site, annoyance-based vibration levels would no longer exceed vibration annoyance thresholds. **Therefore, with incorporation of MM NOI-2 into the project, annoyance-based vibration impacts to the closest sensitive uses located west and south of the Site, would be reduced to a level of less than significant.**

The following mitigation measure is incorporated into the project to reduce the annoyance to sensitive receptors from construction-related vibration levels to a level of less than significant.

⁶ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Mitigation Measures

MM NOI-2: The construction contractor shall not use large excavators, bulldozers or caisson drills within 80 feet of the façade of the residential uses located adjacent to the northeastern portion of the site and the residential uses located closest to the northern and western boundaries of the project site.

Architectural Damage

Vibration generated by construction activity generally has the potential to damage structures. This damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or wells, or cosmetic architectural damage, such as cracked plaster, stucco, or tile.

Table 2, Construction Vibration Damage Criteria, identifies a PPV level of 0.2 as the threshold at which there is a risk to non-engineered timber and masonry buildings. The building façade of the closest commercial use located adjacent to the eastern boundary of the project is located approximately 3 feet from the project boundary. At a distance of 3 feet, a large bulldozer or caisson drill would generate 2.141 in/sec PPV (please see vibration calculations available in **Appendix C** of this report for details). Therefore, vibration damage to the closest building could potentially occur during construction of the project.

At a distance of 15 feet from building facades, the vibration level from a large bulldozer or caisson drill is 0.191 in/sec PPV (please see vibration calculations available in **Appendix C** of this report for details). Therefore, to avoid the potential for any structural damage to the closest building, a bulldozer or caisson drill must not be operated within 15 feet of the façade of the adjacent commercial building. **With the incorporation of project design feature PDF-NOI-1 and mitigation measure MM NOI-3 into the project, impacts from groundborne vibration would be reduced to a level of less than significant.**

The following project design feature and mitigation measures are incorporated into the project to reduce construction-related vibration levels to a level of less than significant.

Project Design Features

PDF NOI-1 The construction contractor shall not use pile drivers on the project site.

Mitigation Measures

MM NOI-3: The construction contractor shall not use large excavators, bulldozers, or caisson drills within 15 feet of the façades of the commercial building located to the east of the project boundary.

MM NOI-2 requires that any heavy machinery (e.g., excavators, bulldozers, caisson drills) is to be operated at least 80 feet from the façade of the residential uses located adjacent to the northwest and close to the

western and northern boundaries of the project site. Construction activity that must occur within this distance to the closest residential façades would need to be performed with smaller equipment types that do not exceed the vibration thresholds applied herein. As discussed above and shown in **Appendix C** of this report, the estimated maximum vibration levels for the construction of the proposed project with the use of required setback distance mitigation measures (**MM NOI-2**) would be less than significant.

With incorporation of project design feature PDF NOI-1, and mitigation measures MM NOI-2 and MM NOI-3, annoyance-based vibration impacts to sensitive receptors closest to the site and vibration impacts to buildings adjacent to the project site will be less than significant.

B. Operational Vibration

The project proposes the construction of a new, 4-story, 110,891 SF mixed-use building which includes 111 apartments and 5,300 SF of retail uses, on top of a 182-space, approximately 72,800 SF subterranean parking structure. The project would not involve the use of stationary equipment that would result in high vibration levels, which are more typical for large manufacturing and industrial projects. Groundborne vibrations at the project site and immediate vicinity currently result from heavy-duty vehicular travel (e.g., refuse trucks and transit buses) on the nearby local roadways, and the proposed land uses at the project site would not result in a substantive increase of these heavy-duty vehicles on the public roadways. While refuse trucks would be used for the removal of solid waste at the project site, these trips would typically only occur once a week and would not be any different than those presently occurring in the vicinity of the project site. **As such, vibration impacts associated with operation of the project would be less than significant and no mitigation measures would be required.**

3. OPERATIONAL NOISE

This impact discussion analyzes the potential for a substantial permanent increase in ambient noise levels in the project vicinity associated with operation of the proposed project, including impacts related to offsite vehicular noise and exposure of neighboring land uses to onsite noise.

A. Parking Noise

The proposed parking areas have the potential to generate noise due to cars entering and exiting, engines accelerating, braking, car alarms, squealing tires, and other general activities associated with people using the parking areas (i.e., talking, opening/closing doors, etc.). Noise levels within the parking areas would fluctuate with the amount of automobile and human activity. Activity levels would be highest in the early morning and evening when the largest number of people would enter and exit as they go to or return from work. However, these events would occur at low exiting and entering speeds, which would not generate high noise levels. During these times, the noise levels can range from 36 to 69 dBA Leq at a

distance of 50 feet from the source.⁷ As the parking areas would be enclosed, except for the driveway area which would have garage access from Genesta Avenue, noise generated from within the parking area would be attenuated by the structure and not exceed existing noise levels of 56.4 dBA Leq, at the closest receptors to the entrance to the parking garage, located west of the project site on the western side of Genesta Avenue, and would therefore not adversely affect any off-site sensitive receptors. Furthermore, operational noise generated by motor vehicles within the project site is regulated under the LAMC. Specifically, Section 114.02 of the LAMC prohibits the operation of any motor vehicles upon any property within the City such that the created noise would cause the noise level on the premises of the property to exceed the ambient noise level by more than five decibels. LAMC Section 114.06 prohibits any person to install, operate or use any vehicle theft alarm system that emits or causes the emission of an audible sound, which is not, or does not become, automatically and completely silenced within five minutes. LAMC Section 114.03 prohibits loading or unloading of any vehicle, operating any dollies, carts, forklifts, or other wheeled equipment, which causes 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. of the following day. **Therefore, through project design and compliance with existing LAMC regulations, noise impacts associated with parking would be less than significant and no mitigation measures would be required.**

B. Stationary Noise Sources

HVAC

As part of the project, HVAC units are anticipated to be installed for the proposed use. Based on estimated A-weighted noise ratings published for standard HVAC equipment,⁸ sound power from rooftop mounted HVAC equipment would be expected to range from 69 dBA Leq to 74 dBA Leq at the source. Sound power is the sound energy released from a source, which cannot be heard, while sound pressure is the sound that is heard based on the environment and distance to a receptor. By converting a 74-dBA sound power level at a source to sound pressure levels at 50 feet using standard acoustical fundamentals and formulas,⁹ the sound pressure level for HVAC equipment would be approximately 39.9 dBA at 50 feet. The closest receptor would be located at least 135 feet from the HVAC units that will be placed on eastern side of the building, on the roof. As shown in **Table 6**, ambient noise levels at the closest receptor to the HVAC system (NM3 at the end of the cul-de-sac of Cantlay Street, east of Genesta Avenue, in proximity to the single-family residential uses located on the northern side of Cantlay Street and the multifamily residential uses located adjacent to the northeastern corner of the project site) would be 55.6 dBA Leq. The noise level generated by the HVAC system at 135 feet would be 31.27 dBA. Therefore, noise levels from use of HVAC would not exceed existing noise levels at sensitive receptor locations in the project vicinity.

⁷ Gordon Bricken & Associates, 1996. Estimates are based on actual noise measurements taken at various parking lots.

⁸ Carrier Corporation, Product Data Sheet for 25HBC5 Base 15 Heat Pump with Puron Refrigerant (1½ to 5 Nominal Tons).

⁹ Daikin, HVAC Acoustic Fundamentals, Application Guide 31-010, Calculating Sound Pressure from Sound Power, pg. 16.

Although the operation of this equipment would generate noise, the design of all of the project's mechanical equipment would be required to comply with the regulations under Section 112.02 of the LAMC, which prohibits noise from air conditioning, refrigeration, heating, pumping, and filtering equipment from exceeding the ambient noise level on the premises of other occupied properties by more than 5 decibels.

Level 4 Roof Terrace

Noise associated with the level 4 roof terrace would consist primarily of people talking. This would result in noise levels of approximately 60-65 dBA at three feet.¹⁰ The roof terrace area is located approximately 45 feet above ground level and 135 feet from the closest receptor. At 135 feet, the noise from conversation would be approximately 31.94 dBA which would be below measured ambient noise levels at the closest receptor locations (i.e., 55.6 dBA measured along Cantlay Street north of the project site). Noise from use of the Level 4 Roof Terrace would be imperceptible at off-site receptor locations.

Therefore, impacts from stationary noise sources would be less than significant and no mitigation measures would be required.

C. Traffic Noise

In order for a new noise source to be audible, there would need to be a 3 dBA or greater CNEL noise increase. The traffic volume on any given roadway would need to double in order for a 3 dBA increase in ambient noise to occur.¹¹ The project is a mixed commercial/residential use. The City's 2023 Transportation Assessment (TIA) concluded that implementation of the project would not result in a significant transportation impact. The VMT analysis in the TIA showed that the project would generate 767 daily vehicle trips. Traffic count data from NavigateLA shows that the traffic volumes at Balboa Boulevard south of Sherman Way (the closest intersection with available data) would total 30,888 average daily trips (ADT). Therefore, even if all the project's traffic trips were added to the traffic volume on the roadway segments in the project Vicinity, the project would not generate a doubling of traffic volumes on any roadways within the project vicinity.

Therefore, the project will not cause the 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. Impacts are less than significant.

¹⁰ California Department of Transportation, *Technical Noise Supplement*, October 1998.

¹¹ CODOT, website: <https://www.codot.gov/programs/research/assets/Brochures/NoiseBrochureFinal.pdf>.

4. AIRPORT NOISE

This impact discussion analyzes the potential for nearby airports or private airstrips to expose people residing or working in the project area to excessive noise levels. The nearest airport is Van Nuys Airport, located approximately 0.5 miles east of the project site. **The project site falls well outside the 65 dBA noise contour¹² and is not considered as a source that contributes to the ambient noise levels on the project site. Impacts are considered to be less than significant.**

¹² Los Angeles World Airports, Van Nuys Airport, Noise Measurement, website: https://www.lawa.org/-/media/lawa-web/environment/files/vny---quarterly-noise-report/vny3q22_20221201_quarterly-report-map.ashx.

VII. NOISE/VIBRATION MITIGATION

1. CONSTRUCTION MITIGATION

MM NOI-1

- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices capable of a 15 dBA reduction.
- Demolition and construction activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- A temporary noise control barrier/sound curtain shall be installed on the property line of the construction site abutting/facing adjacent multi-family residential uses located to the northeast and the closest residential uses located to the north, northwest and west of the project site. The noise control barrier shall be engineered to block the line-of-sight from the residential uses to the construction activity and reduce construction-related noise levels at the adjacent residential structures with a goal of a reduction of 15 dBA. The supporting structure shall be engineered and erected according to applicable codes. The temporary barrier shall remain in place until all windows have been installed and all activities on the project site are complete.

MM NOI-2: The construction contractor shall not use large excavators, bulldozers, or caisson drills within 80 feet of the façade of the residential uses located adjacent to the northeastern portion of the site and the residential uses located closest to the northern and western boundaries of the project site.

MM NOI-3: The construction contractor shall not use large excavators, bulldozers, or caisson drills within 15 feet of the façades of the commercial buildings located to the east of the project boundary.

Project Design Features

PDF NOI-1 The construction contractor shall not use pile drivers on the project site.

2. OPERATIONAL MITIGATION

None required.

VIII. LIST OF ACRONYMS AND ABBREVIATIONS

ADT	average daily traffic
ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
dBA/DD	A-weighted decibel per each doubling of distance
DOT	Department of Transportation
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
FTA	Federal Transit Administration
Hz	Hertz
L_{dn}	Day-Night Average Sound Level
L_{eq}	Equivalent Sound Level
L_{max}, L_{min}	RMS (root mean squared) maximum level of a noise source or environment measured on a sound level meter, during a designated time interval, using fast meter response. L_{min} is the minimum level.
L_v	Vibration Level
ONAC	Federal Office of Noise Abatement Control
ONC	California Department of Health Services Office of Noise Control
OSHA	Occupational Safety and Health Administration
PPV	peak particle velocity
PMC	Pasadena Municipal Code
RMS	root mean square
SEL	Single Event Level
sq ft	square feet
UMTA	Urban Mass Transit Administration
VdB	L_v at 1 microinch per second

IX. REFERENCES

- Anon. 1977. Model Community Noise Control Ordinance. Berkley, CA: California Department of Health Services, Office of Noise Control.
- California, State of. Department of Transportation (Caltrans). 2004. Transportation- and Construction-Induced Vibration Guidance Manual. June. Website: <http://www.dot.ca.gov/hq/env/noise/pub/vibrationmanFINAL.pdf>
- California, State of. Department of Transportation (Caltrans). 2009 and 1998. Technical Noise Supplement. November. Website: http://www.dot.ca.gov/hq/env/noise/pub/tens_complete.pdf
- Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment. September. Website: http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.
- Los Angeles, City of. 2015. Municipal Code.
- Los Angeles, City of. 1999. Noise Element of the General Plan.
- Los Angeles, City of. 2023. Los Angeles Department of Transportation (LADOT). Transportation Impact Assessment for The Sherman Way Mixed-Use Project Located At 16949-16955 West Sherman Way (CPC-2022-7854-ZCJ-SPR-WDI-HCA/ENV-2022-7855-EAF). January 5.
- U.S. Department of Transportation. 2006. FHWA Roadway Construction Noise Model User's Guide. January. Website: <http://www.fhwa.dot.gov/environment/noise/rcnm/rcnm.pdf>.

APPENDICES

Appendix A: Study Area Photographic Index and Noise Measurement Data

Appendix B: Noise Meter Print Outs

Appendix C: RCNM Construction Noise and FHWA Road Noise Calculations

APPENDIX A: STUDY AREA PHOTOGRAPHIC INDEX AND NOISE MEASUREMENT DATA

15-Minute Noise Measurement Datasheet

Project: 16949-16955 West Sherman Way
Site Address/Location: 16955 Sherman Way, Los Angeles, CA 91406
Date: 5/31/2022
Field Tech/Engineer: Ian Edward Gallagher

Site Observations:

Main noise sources are from vehicular traffic travelling along W Sherman Way , Genesta Ave, Cantlay St & other surrounding roads . The local buildings reflect & refract much of the sound. Occasional low altitude aircraft, both fixed wing & helicopters passing overhead. Leaf rustle from nearby trees, palmtrees & other vegetation due to 8 mph breeze.

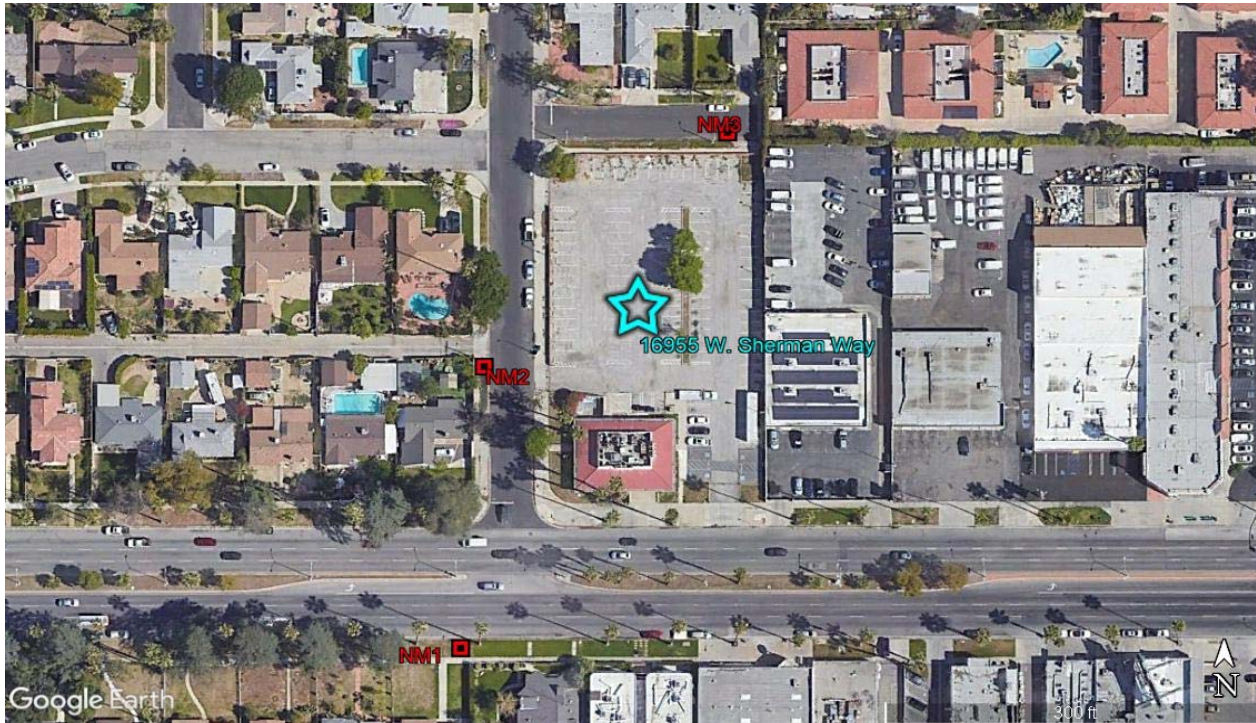
General Location: 16955 Sherman Way, Los Angeles, CA 91406
Sound Meter: Larson Davis Sound Track LxT1 **SN:** 3855
Settings: A-weighted, slow, 10-sec, 15-minute interval
Meteorological Con.: 80 deg F, 3-5 mph wind, 10% humidity, clear skies, sunshine.
Site ID: NM-1, 2 & 3.

Site Topo: Asphalt parking lot, building SE corner, area fenced in.
Ground Type: Urban conditions, acoustically refractive, reflective & absorptive.

NM locations, latitude , longitude :

NM1 Meter: 34°12'3.66"N 118°30'12.45"W NM3 Meter: 34°12'7.93"N 118°30'12.45"W
 NM2 Meter: 34°12'5.99"N 118°30'12.23"W

Figure 1: Monitoring Locations



15-Minute Noise Measurement Datasheet - Cont.

Project: 16949-16955 West Sherman Way
 Site Address/Location: 16955 Sherman Way, Los Angeles, CA 91406
 Site ID: NM-1 ,2 & 3.

Figure 2: NM1 Photo



NM1 looking NNE across Sherman Way towards Genesta Avenue intersection, residence 17001 Sherman Way Van Nuys, on the left of intersection, site 16955 on the right of intersection.
482 vehicles passed microphone travelling along Sherman Way during 15 minute noise measurement.

Figure 3: NM2 Photo



NM2 looking SE across Genesta Avenue towards building 16955 W Sherman Way. Genesta Avenue intersection with Sherman Way on the far right of photo.
12 vehicles passed microphone travelling along Genesta Avenue during 15 minute noise measurement.

15-Minute Noise Measurement Datasheet - Cont.

Project: 16949-16955 West Sherman Way
Site Address/Location: 16955 Sherman Way, Los Angeles, CA 91406
Site ID: NM-1 ,2 & 3.

Figure 4: NM3 Photo



NM3 looking W down Cantlay Street towards Genesta Avenue (50 yards). Residences 16955,16949 & 16943 Cantlay Street on the right. Site area aging, asphalt parking lot on the left behind fence.

15-Minute Noise Measurement Datasheet - Cont.

Project: 16949-16955 West Sherman Way
Site Address/Location: 16955 Sherman Way, Los Angeles, CA 91406
Site ID: NM-1 ,2 & 3.

Table 1: Noise Measurement Summary

Location	Start	Stop	Leq/ dB	Lmax/ dB	Lmin/ dB	L2/ dB	L8/ dB	L25/ dB	L50/ dB	L90/ dB
NM 1	2:02 PM	2:17 PM	70.3	78.9	47.7	76.9	75.1	71.8	67.7	53.7
NM 2	2:38 PM	2:53 PM	56.4	70.7	46.2	67.0	63.5	60.1	56.9	50.6
NM 3	3:12 PM	3:27 PM	55.6	70.4	43.3	66.1	59.3	52.4	48.6	45.5

APPENDIX B: NOISE METER PRINTOUTS

Measurement Report

Report Summary

Meter's File Name	LxT_Data.019.s	Computer's File Name	LxT_0003855-20220531 140259-LxT_Data.019.lbin
Meter	LxT1 0003855		
Firmware	2.404		
User	Ian Edward Gallagher	Location	NM1 34°12'3.66"N 118°30'12.45"W
Job Description	15 minute noise measurement (1 x 15 minutes)		
Note	KWAQN 16949-16955 West Sherman Way		
Start Time	2022-05-31 14:02:59	Duration	0:15:00.0
End Time	2022-05-31 14:17:59	Run Time	0:15:00.0
		Pause Time	0:00:00.0

Results

Overall Metrics

LA _{eq}	70.3 dB		
LAE	99.9 dB	SEA	--- dB
EA	1.1 mPa ² h	LAFTM5	73.7 dB
EA8	34.5 mPa ² h		
EA40	172.5 mPa ² h		
LA _{peak}	98.6 dB	2022-05-31 14:04:00	
LAS _{max}	78.9 dB	2022-05-31 14:08:36	
LAS _{min}	47.7 dB	2022-05-31 14:09:29	
LA _{eq}	70.3 dB		
LC _{eq}	74.8 dB	LC _{eq} - LA _{eq}	4.4 dB
LAI _{eq}	71.5 dB	LAI _{eq} - LA _{eq}	1.2 dB

Exceedances

	Count	Duration
LAS > 65.0 dB	30	0:10:20.3
LAS > 85.0 dB	0	0:00:00.0
LA _{peak} > 135.0 dB	0	0:00:00.0
LA _{peak} > 137.0 dB	0	0:00:00.0
LA _{peak} > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
--- dB	--- dB	0.0 dB	
LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L _{eq}	70.3 dB		74.8 dB		--- dB	
LS _(max)	78.9 dB	2022-05-31 14:08:36	--- dB		--- dB	
LS _(min)	47.7 dB	2022-05-31 14:09:29	--- dB		--- dB	
L _{Peak(max)}	98.6 dB	2022-05-31 14:04:00	--- dB		--- dB	

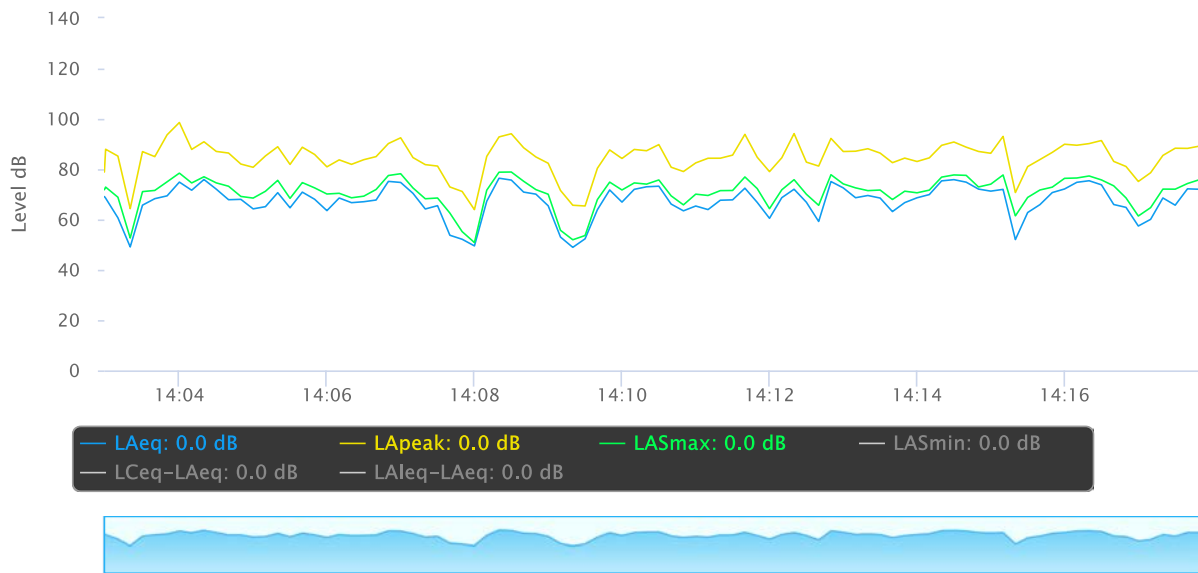
Overloads

Count	Duration	OBA Count	OBA Duration
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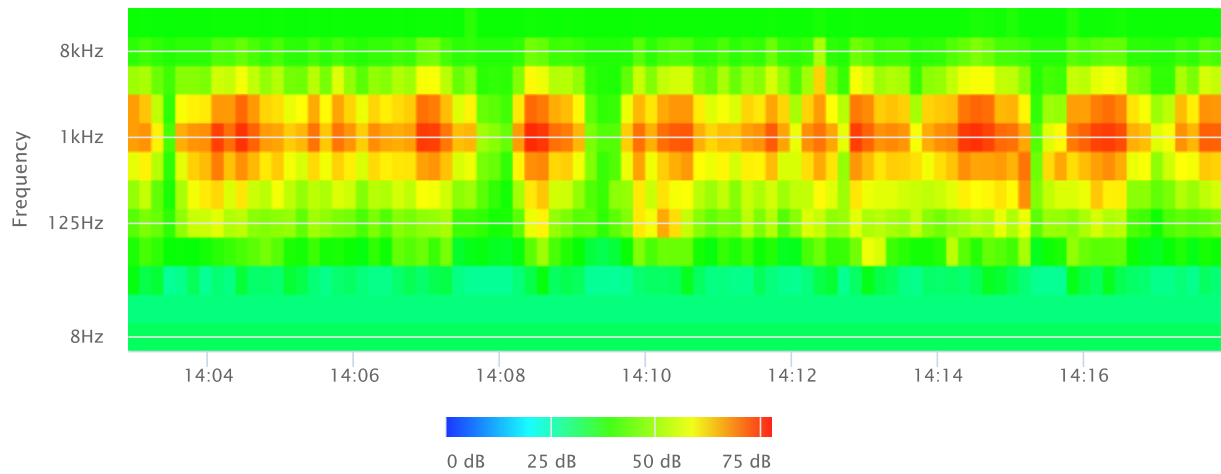
Statistics

LAS 2.0	76.9 dB
LAS 8.0	75.1 dB
LAS 25.0	71.8 dB
LAS 50.0	67.7 dB
LAS 66.6	64.3 dB
LAS 90.0	53.7 dB

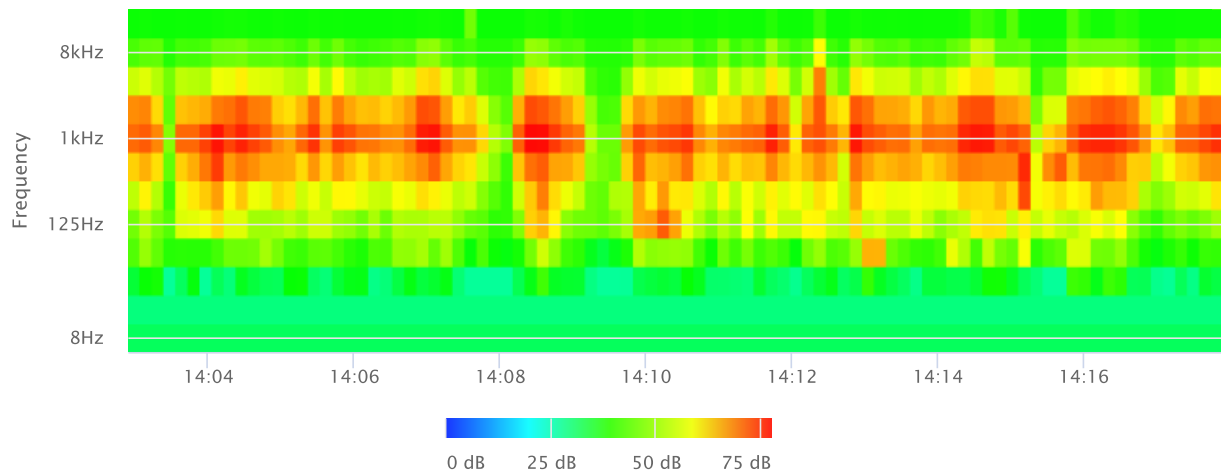
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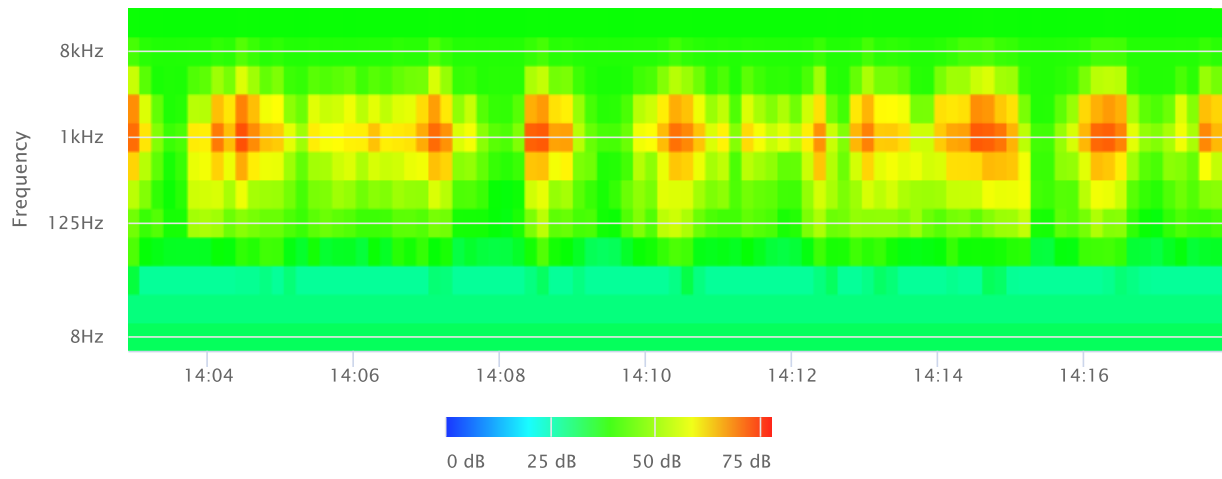
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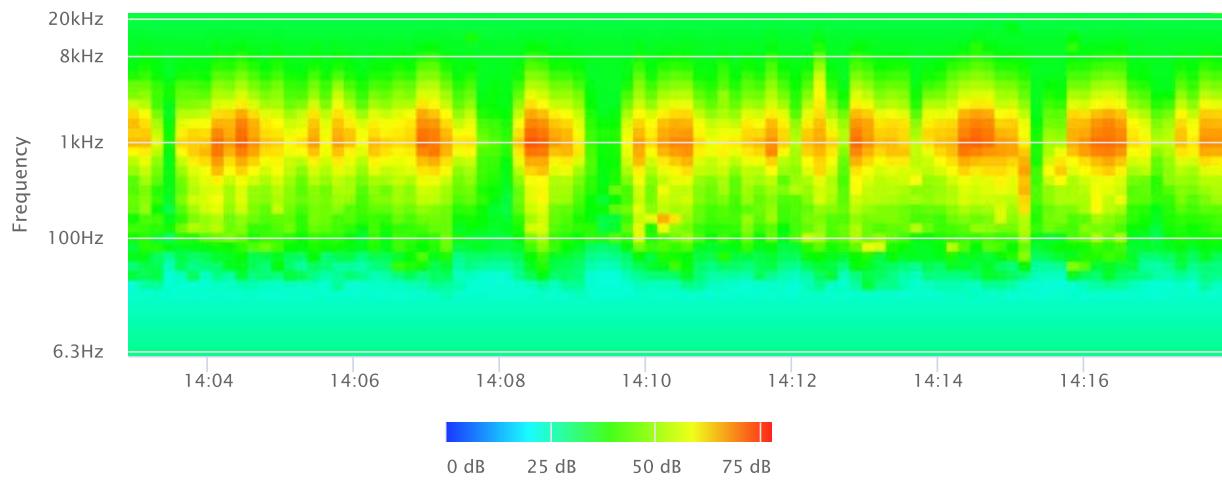
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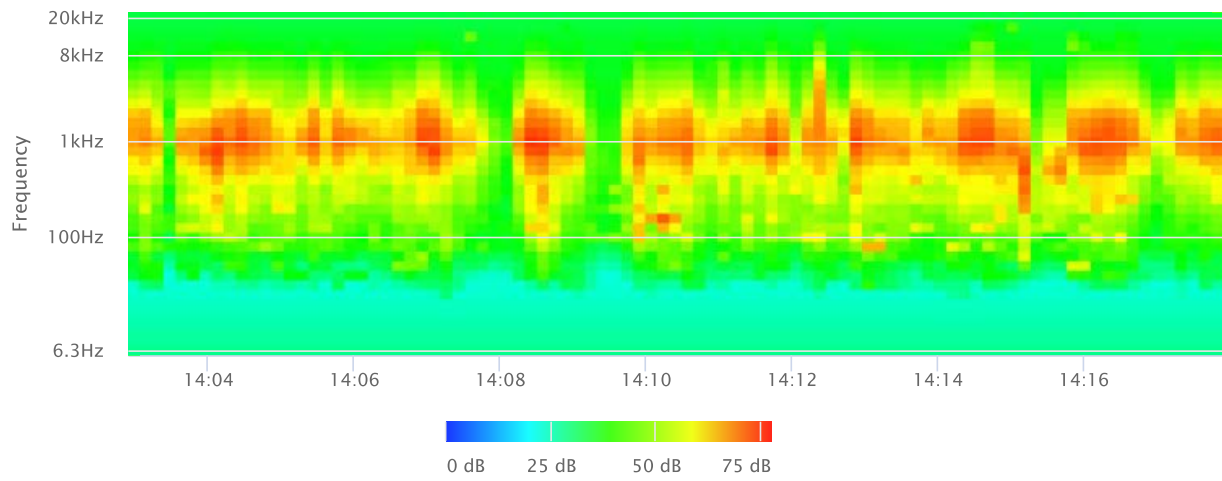
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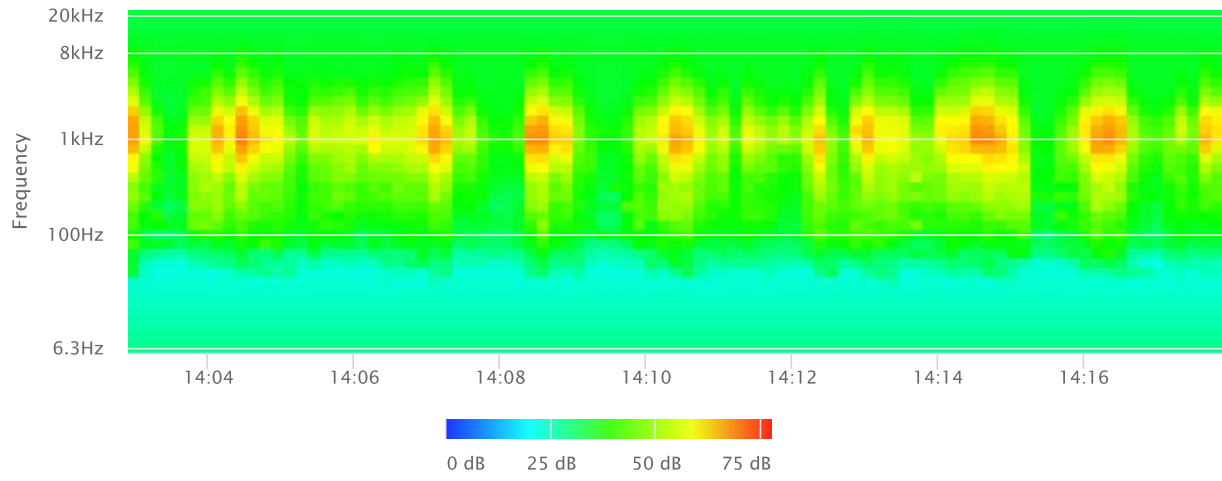
OBA 1/3 Leq



OBA 1/3 Lmax



OBA 1/3 Lmin



Measurement Report

Report Summary

Meter's File Name	LxT_Data.020.s	Computer's File Name	LxT_0003855-20220531 143827-LxT_Data.020.lbin
Meter	LxT1 0003855		
Firmware	2.404		
User	Ian Edward Gallagher	Location	NM2 34°12'5.99"N 118°30'12.23"W
Job Description	15 minute noise measurement (1 x 15 minutes)		
Note	KWAQN 16949-16955 West Sherman Way		
Start Time	2022-05-31 14:38:27	Duration	0:15:00.0
End Time	2022-05-31 14:53:27	Run Time	0:15:00.0
		Pause Time	0:00:00.0

Results

Overall Metrics

LA _{eq}	59.5 dB		
LAE	89.0 dB	SEA	--- dB
EA	88.9 µPa²h	LAFTM5	63.7 dB
EA8	2.8 mPa²h		
EA40	14.2 mPa²h		
LA _{peak}	88.8 dB	2022-05-31 14:48:30	
LAS _{max}	70.7 dB	2022-05-31 14:47:43	
LAS _{min}	46.2 dB	2022-05-31 14:49:50	
LA _{eq}	59.5 dB		
LC _{eq}	68.1 dB	LC _{eq} - LA _{eq}	8.6 dB
LAI _{eq}	61.7 dB	LAI _{eq} - LA _{eq}	2.2 dB

Exceedances

	Count	Duration
LAS > 65.0 dB	7	0:01:04.4
LAS > 85.0 dB	0	0:00:00.0
LA _{peak} > 135.0 dB	0	0:00:00.0
LA _{peak} > 137.0 dB	0	0:00:00.0
LA _{peak} > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
--- dB	--- dB	0.0 dB	
LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L _{eq}	59.5 dB		68.1 dB		--- dB	
LS _(max)	70.7 dB	2022-05-31 14:47:43	--- dB		--- dB	
LS _(min)	46.2 dB	2022-05-31 14:49:50	--- dB		--- dB	
L _{Peak(max)}	88.8 dB	2022-05-31 14:48:30	--- dB		--- dB	

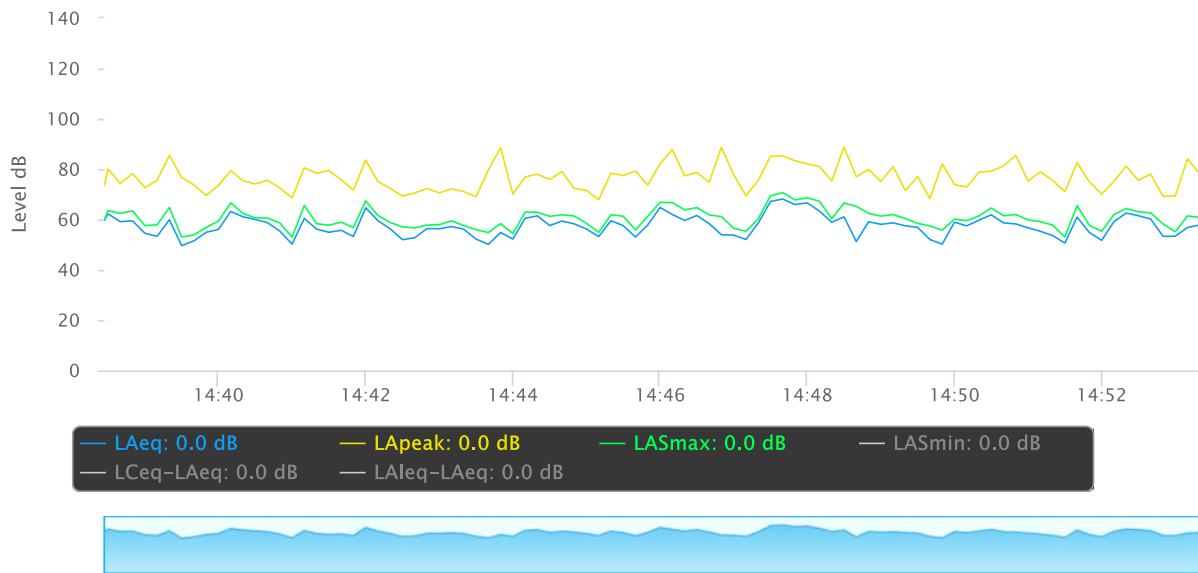
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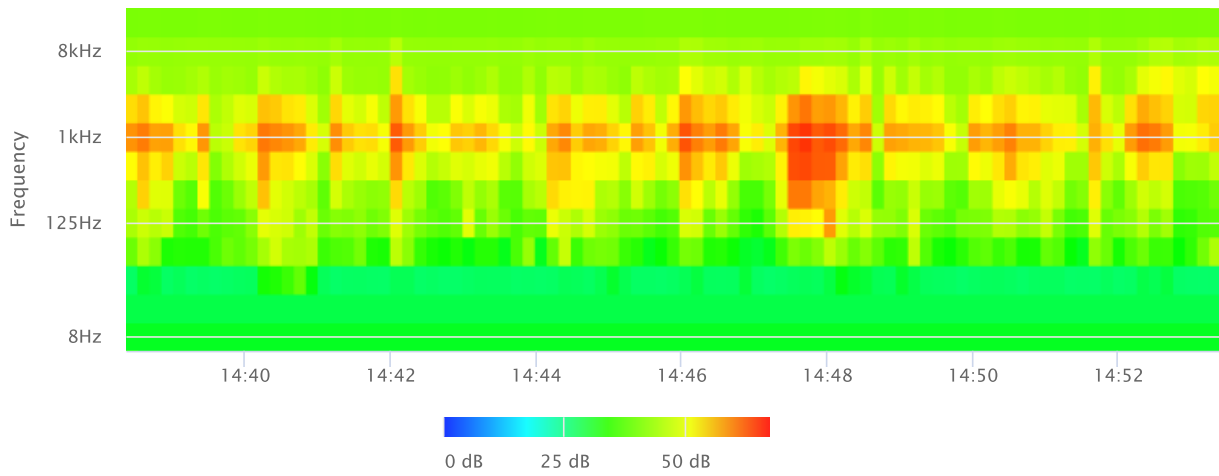
Statistics

LAS 2.0	67.0 dB
LAS 8.0	63.5 dB
LAS 25.0	60.1 dB
LAS 50.0	56.9 dB
LAS 66.6	55.0 dB
LAS 90.0	50.6 dB

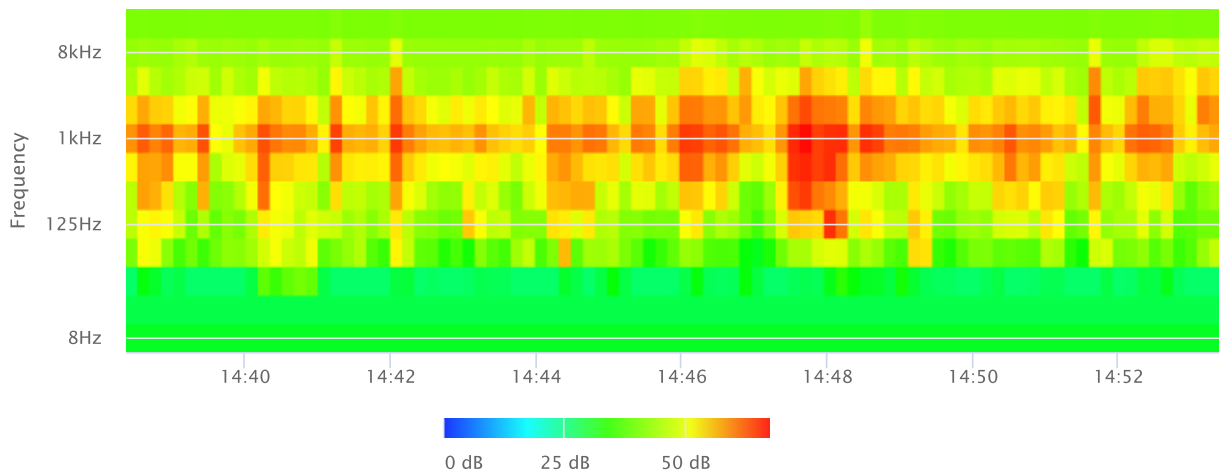
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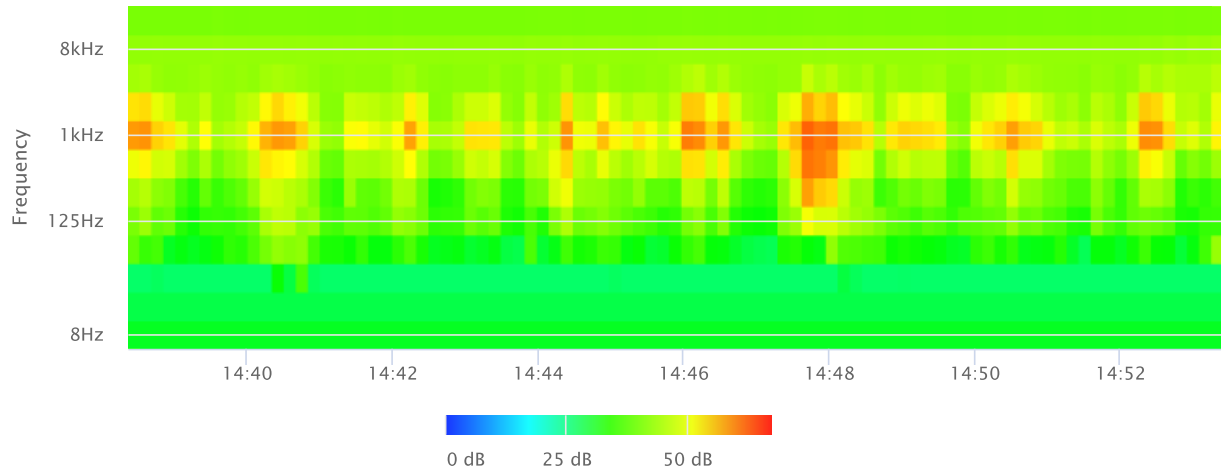
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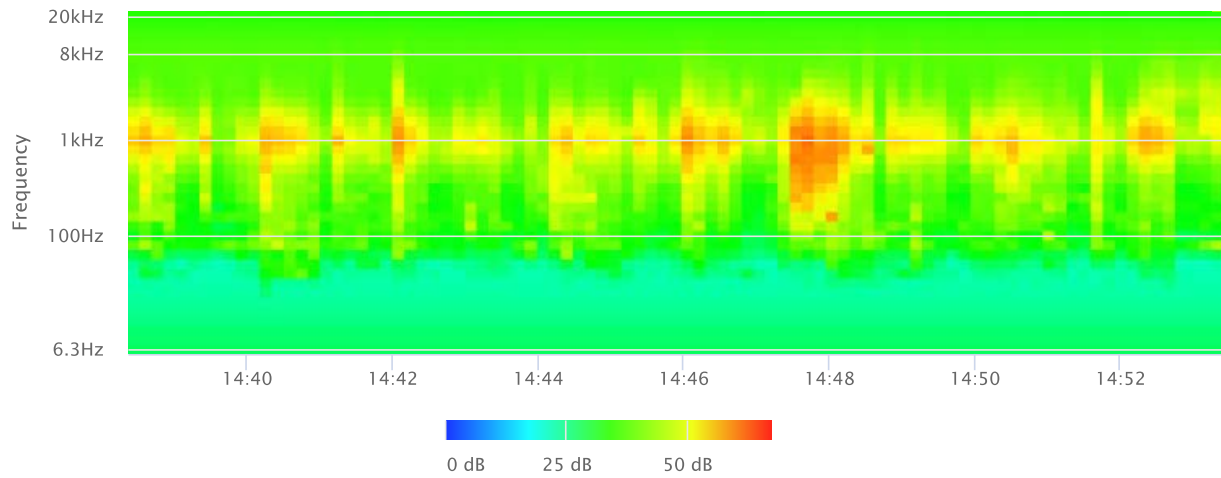
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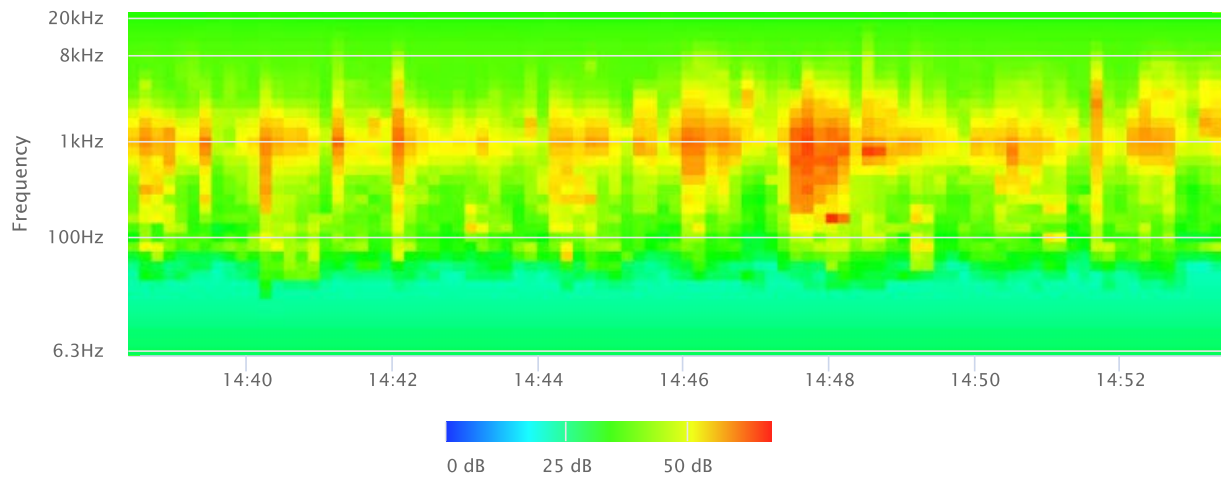
OBA 1/1 Lmin



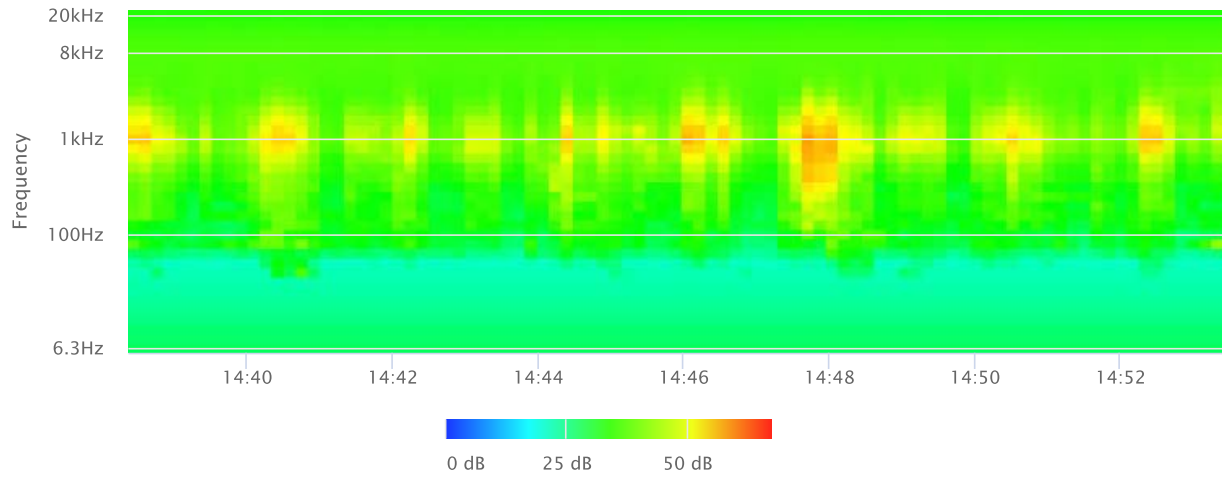
OBA 1/3 Leq



OBA 1/3 Lmax



OBA 1/3 Lmin



Measurement Report

Report Summary

Meter's File Name	LxT_Data.021.s	Computer's File Name	LxT_0003855-20220531 151226-LxT_Data.021.lbin
Meter	LxT1 0003855		
Firmware	2.404		
User	Ian Edward Gallagher	Location	NM3 34°12'7.93"N 118°30'9.95"W
Job Description	15 minute noise measurement (1 x 15 minutes)		
Note	KWAQN 16949-16955 West Sherman Way		
Start Time	2022-05-31 15:12:26	Duration	0:15:00.0
End Time	2022-05-31 15:27:26	Run Time	0:15:00.0
		Pause Time	0:00:00.0

Results

Overall Metrics

LA _{eq}	55.6 dB		
LAE	85.1 dB	SEA	--- dB
EA	36.2 µPa²h	LAFTM5	59.5 dB
EA8	1.2 mPa²h		
EA40	5.8 mPa²h		
LA _{peak}	84.0 dB	2022-05-31 15:25:51	
LAS _{max}	70.4 dB	2022-05-31 15:25:47	
LAS _{min}	43.3 dB	2022-05-31 15:15:27	
LA _{eq}	55.6 dB		
LC _{eq}	65.5 dB	LC _{eq} - LA _{eq}	9.9 dB
LAI _{eq}	57.5 dB	LAI _{eq} - LA _{eq}	1.9 dB

Exceedances

	Count	Duration
LAS > 65.0 dB	3	0:00:34.3
LAS > 85.0 dB	0	0:00:00.0
LA _{peak} > 135.0 dB	0	0:00:00.0
LA _{peak} > 137.0 dB	0	0:00:00.0
LA _{peak} > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
--- dB	--- dB	0.0 dB	
LDEN	LDay	LEve	LNight
--- dB	--- dB	--- dB	--- dB

Any Data

	Level	A Time Stamp	Level	C Time Stamp	Level	Z Time Stamp
L _{eq}	55.6 dB		65.5 dB		--- dB	
LS _(max)	70.4 dB	2022-05-31 15:25:47	--- dB		--- dB	
LS _(min)	43.3 dB	2022-05-31 15:15:27	--- dB		--- dB	
L _{Peak(max)}	84.0 dB	2022-05-31 15:25:51	--- dB		--- dB	

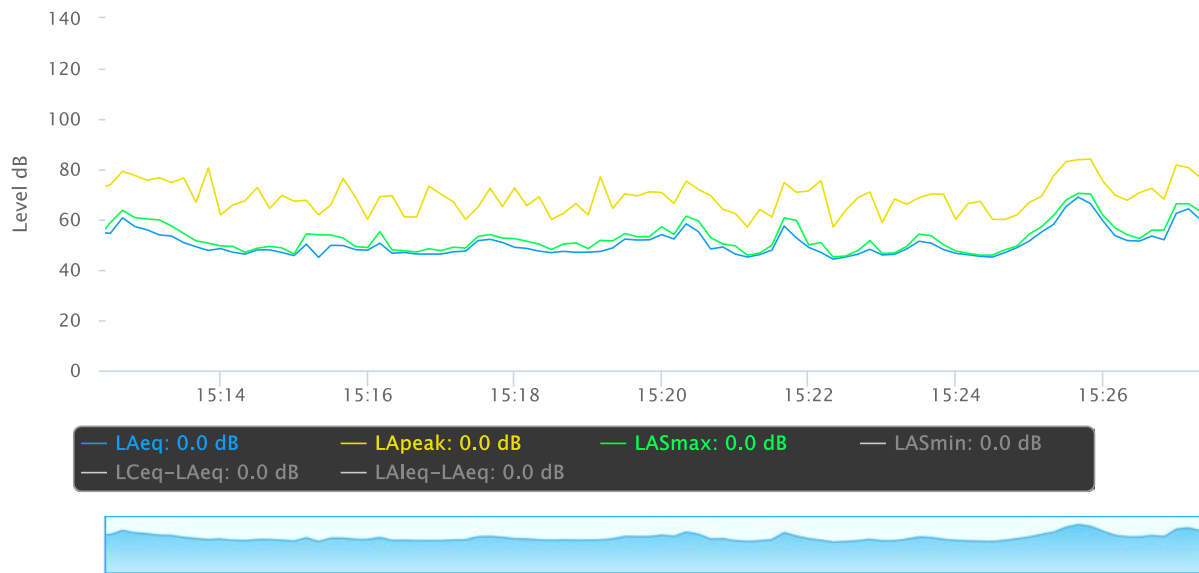
Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 2.0	66.1 dB
LAS 8.0	59.3 dB
LAS 25.0	52.4 dB
LAS 50.0	48.6 dB
LAS 66.6	47.3 dB
LAS 90.0	45.5 dB

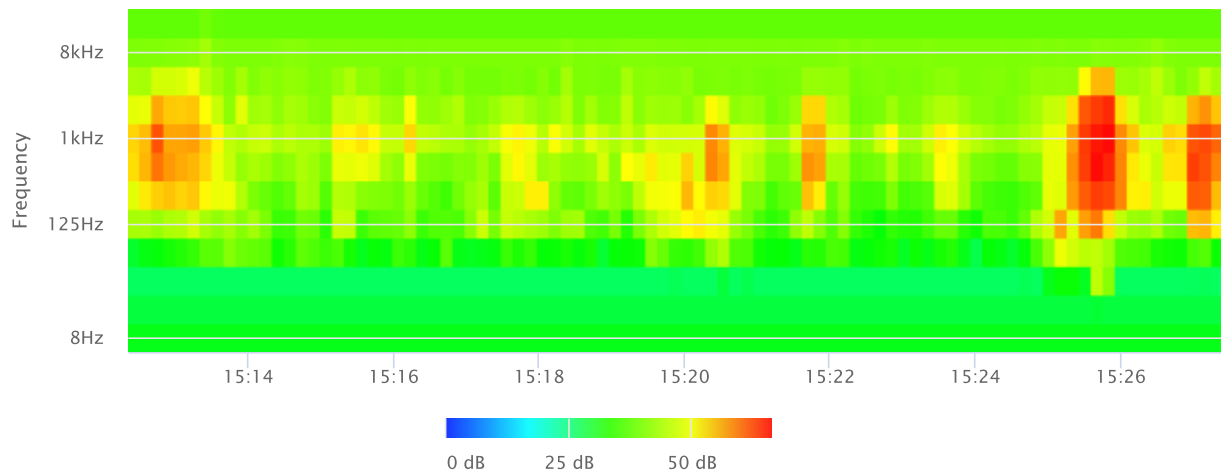
Time History



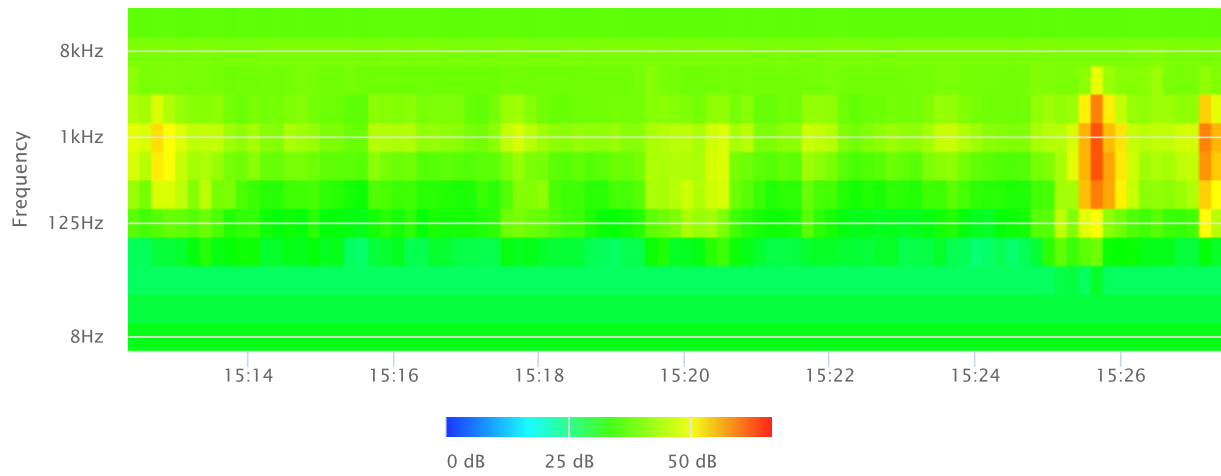
OBA 1/1 Leq



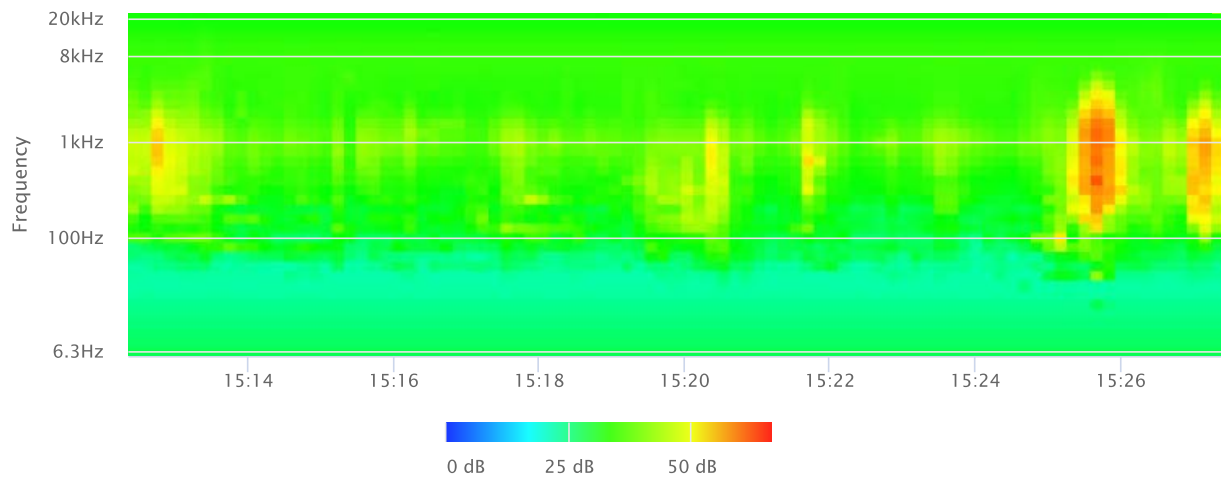
OBA 1/1 Lmax



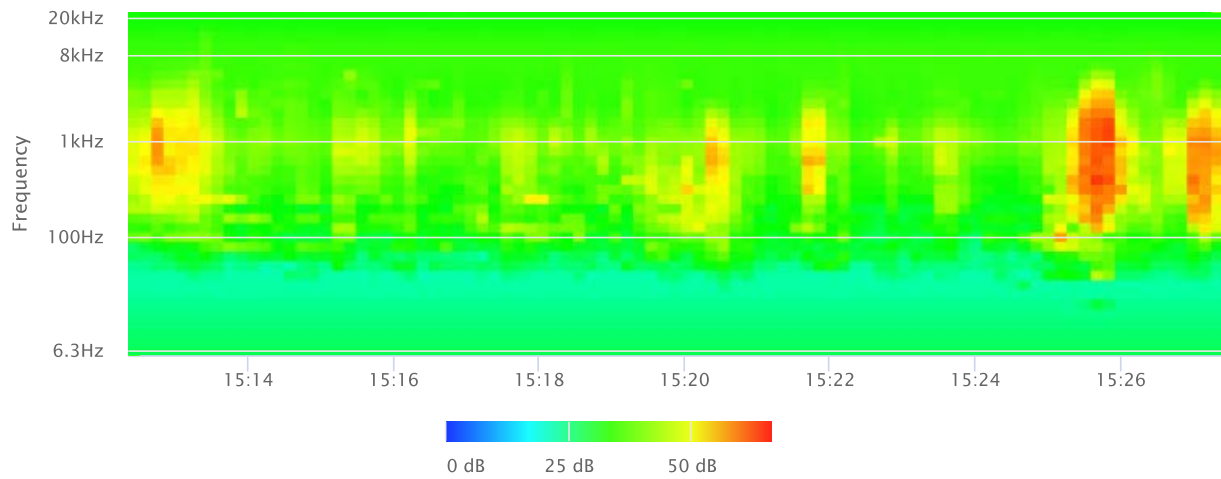
OBA 1/1 Lmin



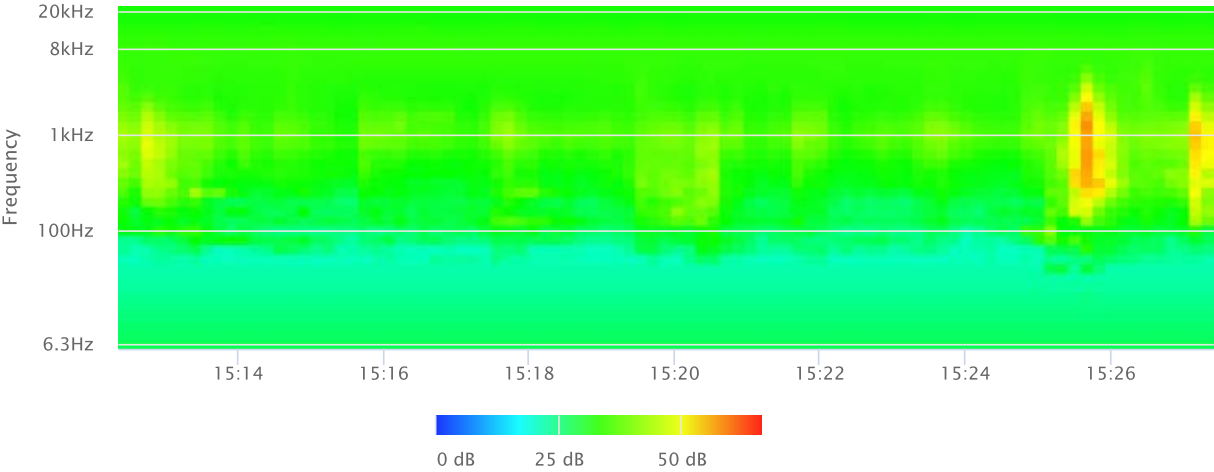
OBA 1/3 Leq



OBA 1/3 Lmax



OBA 1/3 Lmin



APPENDIX C: RCNM CONSTRUCTION NOISE CALCULATIONS

Table A
Construction Noise by Phase - Multi-family residential to the Northeast (NM3)

A	B	C	D	E	F	G	H	I
Equipment Type	# of Equipment	Equipment Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Equipment Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Noise Level Leq (dBA) at Receptor
Demolition								
Concrete/Industrial Saw	1	90	35	20	0.20	3.1	-7.0	86.1
Rubber Tired Dozers	1	82	35	40	0.40	3.1	-4.0	81.1
Tractors/Loaders/Backhoes	3	79	35	40	1.20	3.1	0.8	82.9
							Log Sum	88.6
Site Prep/Excavation								
Excavator	1	81	35	40	0.40	3.1	-4.0	80.1
Concrete Pumps	2	81	35	20	0.40	3.1	-4.0	80.1
Rubber Tired Dozers	1	82	35	40	0.40	3.1	-4.0	81.1
Concrete Mixer Truck	3	79	35	40	1.20	3.1	0.8	82.9
Forklifts	1	64	35	40	0.40	3.1	-4.0	63.1
Welders	1	73	35	40	0.40	3.1	-4.0	72.1
Bore/Drill Rig	1	79	35	20	0.20	3.1	-7.0	75.1
Tractors/Loaders/Backhoes	1	79	35	40	0.40	3.1	-4.0	78.1
							Log Sum	87.6
Building Construction								
Cranes	1	81	35	16	0.16	3.1	-8.0	76.1
Forklifts	1	64	35	50	0.50	3.1	-3.0	64.1
Generator Sets	1	81	35	50	0.50	3.1	-3.0	81.1
Welders	3	73	35	40	1.20	3.1	0.8	76.9
Tractors/Loaders/Backhoes	1	79	35	40	0.40	3.1	-4.0	78.1
							Log Sum	84.6
Architectural Coating								
Aerial Lift	1	75	35	20	0.20	3.1	-7.0	71.1
Air Compressors	1	78	35	40	0.40	3.1	-4.0	77.1
							Log Sum	78.1

Notes:

- (1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).
- (2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFcKkoEKUjv5VZM0tw_KO977Em1A
- (3) Distance to receptor calculated from the façade of the receptor to the project boundary. Construction noise projected from the edge the project site to the structural façade of the nearest sensitive use.

Table B
Construction Noise by Phase - Adjacent Residential Receptors to the North (NM3)

A	B	C	D	E	F	G	H	I
Equipment Type	# of Equipment	Equipment Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Equipment Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Noise Level Leq (dBA) at Receptor
Demolition								
Concrete/Industrial Saw	1	90	75	20	0.20	-3.5	-7.0	79.5
Rubber Tired Dozers	1	82	75	40	0.40	-3.5	-4.0	74.5
Tractors/Loaders/Backhoes	3	79	75	40	1.20	-3.5	0.8	76.3
							Log Sum	82.0
Site Prep/Excavation								
Excavator	1	81	75	40	0.40	-3.5	-4.0	73.5
Concrete Pumps	2	81	75	20	0.40	-3.5	-4.0	73.5
Rubber Tired Dozers	1	82	75	40	0.40	-3.5	-4.0	74.5
Concrete Mixer Truck	3	79	75	40	1.20	-3.5	0.8	76.3
Forklifts	1	64	75	40	0.40	-3.5	-4.0	56.5
Welders	1	73	75	40	0.40	-3.5	-4.0	65.5
Bore/Drill Rig	1	79	75	20	0.20	-3.5	-7.0	68.5
Tractors/Loaders/Backhoes	1	79	75	40	0.40	-3.5	-4.0	71.5
							Log Sum	81.0
Building Construction								
Cranes	1	81	75	16	0.16	-3.5	-8.0	69.5
Forklifts	1	64	75	50	0.50	-3.5	-3.0	57.5
Generator Sets	1	81	75	50	0.50	-3.5	-3.0	74.5
Welders	3	73	75	40	1.20	-3.5	0.8	70.3
Tractors/Loaders/Backhoes	1	79	75	40	0.40	-3.5	-4.0	71.5
							Log Sum	77.9
Architectural Coating								
Aerial Lift	1	75	75	20	0.20	-3.5	-7.0	64.5
Air Compressors	1	78	75	40	0.40	-3.5	-4.0	70.5
							Log Sum	71.5

Notes:

- (1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).
- (2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFcKkoEKUjv5VZM0tw_KO977Em1A
- (3) Distance to receptor calculated from the façade of the receptor to the project boundary. Construction noise projected from the edge the project site to the structural façade of the nearest sensitive use.

Table C
Construction Noise by Phase - Adjacent Residential Receptors Northwest of the Project Site (NM3)

A	B	C	D	E	F	G	H	I
Equipment Type	# of Equipment	Equipment Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Equipment Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Noise Level Leq (dBA) at Receptor
Demolition								
Concrete/Industrial Saw	1	90	120	20	0.20	-7.6	-7.0	75.4
Rubber Tired Dozers	1	82	120	40	0.40	-7.6	-4.0	70.4
Tractors/Loaders/Backhoes	3	79	120	40	1.20	-7.6	0.8	72.2
							Log Sum	77.9
Site Prep/Excavation								
Excavator	1	81	120	40	0.40	-7.6	-4.0	69.4
Concrete Pumps	2	81	120	20	0.40	-7.6	-4.0	69.4
Rubber Tired Dozers	1	82	120	40	0.40	-7.6	-4.0	70.4
Concrete Mixer Truck	3	79	120	40	1.20	-7.6	0.8	72.2
Forklifts	1	64	120	40	0.40	-7.6	-4.0	52.4
Welders	1	73	120	40	0.40	-7.6	-4.0	61.4
Bore/Drill Rig	1	79	120	20	0.20	-7.6	-7.0	64.4
Tractors/Loaders/Backhoes	1	79	120	40	0.40	-7.6	-4.0	67.4
							Log Sum	76.9
Building Construction								
Cranes	1	81	120	16	0.16	-7.6	-8.0	65.4
Forklifts	1	64	120	50	0.50	-7.6	-3.0	53.4
Generator Sets	1	81	120	50	0.50	-7.6	-3.0	70.4
Welders	3	73	120	40	1.20	-7.6	0.8	66.2
Tractors/Loaders/Backhoes	1	79	120	40	0.40	-7.6	-4.0	67.4
							Log Sum	73.9
Architectural Coating								
Aerial Lift	1	75	120	20	0.20	-7.6	-7.0	60.4
Air Compressors	1	78	120	40	0.40	-7.6	-4.0	66.4
							Log Sum	67.4

Notes:

- (1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).
- (2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFcKkoEKUjv5VZM0tw_KO977Em1A
- (3) Distance to receptor calculated from the façade of the receptor to the project boundary. Construction noise projected from the edge the project site to the structural façade of the nearest sensitive use.

Table D
Construction Noise by Phase - Adjacent Residential Receptors West of the Project Site (NM2)

A	B	C	D	E	F	G	H	I
Equipment Type	# of Equipment	Equipment Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Equipment Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Noise Level Leq (dBA) at Receptor
Demolition								
Concrete/Industrial Saw	1	90	65	20	0.20	-2.3	-7.0	80.7
Rubber Tired Dozers	1	82	65	40	0.40	-2.3	-4.0	75.7
Tractors/Loaders/Backhoes	3	79	65	40	1.20	-2.3	0.8	77.5
							Log Sum	83.3
Site Prep/Excavation								
Excavator	1	81	65	40	0.40	-2.3	-4.0	74.7
Concrete Pumps	2	81	65	20	0.40	-2.3	-4.0	74.7
Rubber Tired Dozers	1	82	65	40	0.40	-2.3	-4.0	75.7
Concrete Mixer Truck	3	79	65	40	1.20	-2.3	0.8	77.5
Forklifts	1	64	65	40	0.40	-2.3	-4.0	57.7
Welders	1	73	65	40	0.40	-2.3	-4.0	66.7
Bore/Drill Rig	1	79	65	20	0.20	-2.3	-7.0	69.7
Tractors/Loaders/Backhoes	1	79	65	40	0.40	-2.3	-4.0	72.7
							Log Sum	82.3
Building Construction								
Cranes	1	81	65	16	0.16	-2.3	-8.0	70.8
Forklifts	1	64	65	50	0.50	-2.3	-3.0	58.7
Generator Sets	1	81	65	50	0.50	-2.3	-3.0	75.7
Welders	3	73	65	40	1.20	-2.3	0.8	71.5
Tractors/Loaders/Backhoes	1	79	65	40	0.40	-2.3	-4.0	72.7
							Log Sum	79.2
Architectural Coating								
Aerial Lift	1	75	65	20	0.20	-2.3	-7.0	65.7
Air Compressors	1	78	65	40	0.40	-2.3	-4.0	71.7
							Log Sum	72.7

Notes:

- (1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).
- (2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFcKkoEKUjv5VZM0tw_KO977Em1A
- (3) Distance to receptor calculated from the façade of the receptor to the project boundary. Construction noise projected from the edge the project site to the structural façade of the nearest sensitive use.

Table E
Construction Noise by Phase - Adjacent Residential Receptors Southwest of the Project Site (NM1)

A	B	C	D	E	F	G	H	I
Equipment Type	# of Equipment	Equipment Lmax at 50 feet, dBA ^{1,2}	Distance to Receptor ³	Equipment Usage Percent	Usage Factor	Dist. Correction dB	Usage Adj. dB	Noise Level Leq (dBA) at Receptor
Demolition								
Concrete/Industrial Saw	1	90	185	20	0.20	-11.4	-7.0	71.6
Rubber Tired Dozers	1	82	185	40	0.40	-11.4	-4.0	66.7
Tractors/Loaders/Backhoes	3	79	185	40	1.20	-11.4	0.8	68.4
							Log Sum	74.2
Site Prep/Excavation								
Excavator	1	81	185	40	0.40	-11.4	-4.0	65.7
Concrete Pumps	2	81	185	20	0.40	-11.4	-4.0	65.7
Rubber Tired Dozers	1	82	185	40	0.40	-11.4	-4.0	66.7
Concrete Mixer Truck	3	79	185	40	1.20	-11.4	0.8	68.4
Forklifts	1	64	185	40	0.40	-11.4	-4.0	48.7
Welders	1	73	185	40	0.40	-11.4	-4.0	57.7
Bore/Drill Rig	1	79	185	20	0.20	-11.4	-7.0	60.6
Tractors/Loaders/Backhoes	1	79	185	40	0.40	-11.4	-4.0	63.7
							Log Sum	73.2
Building Construction								
Cranes	1	81	185	16	0.16	-11.4	-8.0	61.7
Forklifts	1	64	185	50	0.50	-11.4	-3.0	49.6
Generator Sets	1	81	185	50	0.50	-11.4	-3.0	66.6
Welders	3	73	185	40	1.20	-11.4	0.8	62.4
Tractors/Loaders/Backhoes	1	79	185	40	0.40	-11.4	-4.0	63.7
							Log Sum	70.1
Architectural Coating								
Aerial Lift	1	75	185	20	0.20	-11.4	-7.0	56.6
Air Compressors	1	78	185	40	0.40	-11.4	-4.0	62.7
							Log Sum	63.6

Notes:

- (1) Source: Referenced noise levels from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (September 2018).
- (2) Source: https://www.google.com/url?q=http://www.noisetesting.info/blog/warehouse-forklift-workplace-noise-levels/&sa=D&source=hangouts&ust=1545259247311000&usg=AFQjCNHFcKkoEKUjv5VZM0tw_KO977Em1A
- (3) Distance to receptor calculated from the façade of the receptor to the project boundary. Construction noise projected from the edge the project site to the structural façade of the nearest sensitive use.

**Table F
Construction Noise Levels (L_{eq})**

Construction Phase	Receptor Location	Unmitigated Construction Noise Levels (dBA Leq) ¹	Noise Level Where Construction Impacts Would Be Significant?	Increase Over Threshold Levels (dBA)	Noise Levels with BMPs ² (dBA)
Demolition	Multi-family residential to the Northeast (NM3)	88.6	75.0	13.6	73.6
	Adjacent Residential Receptors to the North (NM3)	82.0	75.0	7.0	67.0
	Adjacent Residential Receptors to the Northwest (NM3)	77.9	75.0	2.9	62.9
	Adjacent Residential Receptors to the West (NM2)	83.3	75.0	8.3	68.3
	Adjacent Residential Receptors to the Southwest (NM1)	74.2	75.0	-0.8	-
Site Prep/Excavation	Multi-family residential to the Northeast (NM3)	87.6	75.0	12.6	72.6
	Adjacent Residential Receptors to the North (NM3)	81.0	75.0	6.0	66.0
	Adjacent Residential Receptors to the Northwest (NM3)	76.9	75.0	1.9	61.9
	Adjacent Residential Receptors to the West (NM2)	82.3	75.0	7.3	67.3
	Adjacent Residential Receptors to the Southwest (NM1)	73.2	75.0	-1.8	-
Building Construction	Multi-family residential to the Northeast (NM3)	84.6	75.0	9.6	69.6
	Adjacent Residential Receptors to the North (NM3)	77.9	75.0	2.9	62.9
	Adjacent Residential Receptors to the Northwest (NM3)	73.9	75.0	-1.1	58.9
	Adjacent Residential Receptors to the West (NM2)	79.2	75.0	4.2	64.2
	Adjacent Residential Receptors to the Southwest (NM1)	70.1	75.0	-4.9	-
Architectural Coating	Multi-family residential to the Northeast (NM3)	78.1	75.0	3.1	63.1
	Adjacent Residential Receptors to the North (NM3)	71.5	75.0	-3.5	56.5
	Adjacent Residential Receptors to the Northwest (NM3)	67.4	75.0	-7.6	52.4
	Adjacent Residential Receptors to the West (NM2)	72.7	75.0	-2.3	57.7
	Adjacent Residential Receptors to the Southwest (NM1)	63.6	75.0	-11.4	-

Notes:

(1) Construction noise calculated in Tables A through E.

(2) Noise level reduction with incorporation of BMPs which requires a 15 dBA noise reduction from mufflers and/or shielding.

VdB Calculations

Based on reference equation 7-3 from Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, 2018, pg 185

$$Lv(\text{distance}) = Lv(\text{ref}) - 30 * \log(D/25)$$

large bulldozer @ 35 feet

Lv 82.62

large bulldozer @ 65 feet

Lv 74.55

large bulldozer @ 75 feet

Lv 72.69

large bulldozer @ 80 feet

Lv 71.85

GROUNDBORNE VIBRATION ANALYSIS

Project: Sherman Way Date: 3/21/23
Source: Large Bulldozer
Scenario: Unmitigated
Location: Project Site
Address: Adjacent commercial
PPV = $PPV_{ref}(25/D)^n$ (in/sec)

INPUT

Equipment = 2 Large Bulldozer INPUT SECTION IN GREEN
Type
PPVref = 0.089 Reference PPV (in/sec) at 25 ft.
D = 3.00 Distance from Equipment to Receiver (ft)
n = 1.50 Vibration attenuation rate through the ground

Note: Based on reference equation 7-2 from Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, 2018, pg 185.

RESULTS

PPV = 2.141 IN/SEC OUTPUT IN BLUE

GROUNDBORNE VIBRATION ANALYSIS

Project: Sherman Way Date: 3/21/23
Source: Large Bulldozer
Scenario: Mitigated
Location: Project Site
Address: Adjacent commercial
PPV = $PPV_{ref}(25/D)^n$ (in/sec)

INPUT

Equipment = 2 Large Bulldozer INPUT SECTION IN GREEN
Type
PPVref = 0.089 Reference PPV (in/sec) at 25 ft.
D = 15.00 Distance from Equipment to Receiver (ft)
n = 1.50 Vibration attenuation rate through the ground

Note: Based on reference equation 7-2 from Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, 2018, pg 185.

RESULTS

PPV = 0.191 IN/SEC OUTPUT IN BLUE



24 Hours Traffic Volume

City of Los Angeles
Department of Transportation

Counter KENT
Date 11/03/10
Start Time 12 AM

Location **BALBOA BL S/O SHERMAN WAY**
Direction N/S STREET
Serial Number RD97736 D

Day of Week WEDNESDAY
DOT District WEST VALLEY
Weather CLEAR
Prepared By 11/05/10
AMS

Time	NORTHBOUND or WESTBOUND					SOUTHBOUND or EASTBOUND					TOTAL
	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	1ST QTR	2ND QTR	3RD QTR	4TH QTR	HOUR TOTAL	
12 AM	45	28	26	25	124	26	21	17	20	84	208
1 AM	21	8	8	15	52	18	9	34	16	77	129
2 AM	21	12	17	10	60	13	10	12	4	39	99
3 AM	5	8	9	14	36	5	7	9	9	30	66
4 AM	12	7	10	17	46	8	11	12	12	43	89
5 AM	19	32	42	44	137	22	25	65	69	181	318
6 AM	62	92	76	108	338	127	194	299	373	993	1331
7 AM	157	180	194	256	787	413	444	442	402	1701	2488
8 AM	283	272	261	221	1037	398	422	394	337	1551	2588
9 AM	187	185	179	191	742	306	310	284	222	1122	1864
10 AM	191	214	197	156	758	222	213	163	198	796	1554
11 AM	229	218	225	189	861	187	187	215	213	802	1663
12 NN	202	227	239	233	901	218	175	231	217	841	1742
1 PM	225	229	208	189	851	187	194	196	194	771	1622
2 PM	220	220	258	279	977	199	215	206	220	840	1817
3 PM	246	341	368	364	1319	245	239	243	213	940	2259
4 PM	328	332	324	343	1327	241	201	212	217	871	2198
5 PM	334	350	385	396	1465	252	243	245	229	969	2434
6 PM	369	313	341	322	1345	271	232	196	193	892	2237
7 PM	264	239	200	235	938	172	122	133	109	536	1474
8 PM	192	154	142	115	603	104	103	106	91	404	1007
9 PM	132	126	125	104	487	80	65	80	68	293	780
10 PM	116	97	96	68	377	64	53	51	52	220	597
11 PM	46	61	36	39	182	52	28	29	33	142	324

FIRST 12-HOURS PEAK QUARTER COUNT	283	8 AM	1ST	444	7 AM	2ND
LAST 12-HOURS PEAK QUARTER COUNT	396	5 PM	4TH	271	6 PM	1ST
24 HOUR VEHICLES TOTAL		15,750			15,138	30,888
TOTAL VEHICLES STANDARD DEVIATION (STD)	[+,-]	455.78		[+,-]	470.44	861.95

PEAK HOURS VOLUME

	NORTH or WEST BOUND		SOUTH or EAST BOUND		BOTH DIRECTIONS	
	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME	PEAK HOUR	VEHICLE VOLUME
First 12H Peak	8 AM	1,037	7 AM	1,701	8 AM	2,588
Last 12H Peak	5 PM	1,465	5 PM	969	5 PM	2,434
First 12H Peak STD		[+,-] 371.29		[+,-] 597.49		[+,-] 943.86
Last 12H Peak STD		[+,-] 401.32		[+,-] 292.10		[+,-] 682.71

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

16949-16955 W. Sherman Way
LADOT Case No. SFV22-113679
LADOT Project ID No. 53972

Date: January 5, 2023

To: Claudia Rodriguez, Senior City Planner
Department of City Planning



From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ASSESSMENT FOR THE SHERMAN WAY MIXED-USE PROJECT LOCATED AT 16949-16955 WEST SHERMAN WAY (CPC-2022-7854-ZCJ-SPR-WDI-HCA/ENV-2022-7855-EAF)**

The Department of Transportation (LADOT) has reviewed the transportation assessment prepared by Jano Baghdanian & Associates, dated December 19, 2022, for the proposed Sherman Way Mixed-Use development located at 16949-16955 West Sherman Way in the Reseda - West Van Nuys 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 an 116,191 square foot mixed-use development consisting of 111 units of residential with 5,300 square feet of retail at the northeast corner of the intersection of Sherman Way and Genesta Avenue. The project site encompasses 1.13 acres and is currently occupied by a 4,212 square foot vacant building. A total of 182 parking spaces and 57 bicycle parking spaces will be provided. Vehicular access to the site will be provided by two driveways located on the east side of Genesta Avenue. The project is expected to be completed by 2025.

B. CEQA Screening Threshold

A trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips (DVT) screening threshold set forward by the TAG. The City of Los Angeles VMT Calculator 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, based on sociodemographic data and the built environment factors of the project's surroundings,

determined that the project exceeds the net 250 DVT threshold. The transportation assessment concluded that implementation of the project would **not** result in a significant transportation impact. A copy of the VMT calculator-screening pages are provided in **Attachment A**. The traffic analysis included further discussion on the screening of the following CEQA transportation 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. The analysis determined that the project does not obstruct or conflict with the City's development policies and standards for the transportation system.

2. Threshold T-2.1: Causing Substantial Vehicle Miles Traveled

Using the VMT Calculator, the assessment determined that the project would generate a 767 net increase in DVT and a 6,017 net increase in daily VMT. The analysis concluded that the project would not result in a significant VMT impact as discussed below under Section C, 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.

C. CEQA Transportation Analysis

The new LADOT Transportation Assessment Guidelines (TAG) provide instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds. LADOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the South Valley APC area, in which the project is located, the following threshold has been established:

- Daily Household VMT per Capita: 9.4
- Daily Work VMT per Employee: 11.6

As cited in the VMT analysis report prepared by Jano Baghdanian & Associates, the VMT generated by the project results in an 8.6 Household VMT per Capita. The Work VMT per Employee is not applicable for this project. Therefore, it was concluded that the implementation of the proposed project would not result in a significant VMT impact.

D. 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 upon the intersection traffic volumes, lane configurations, and signal timing:

- Sherman Way and Louise Avenue
- Sherman Way and Amestoy Avenue
- Sherman Way and Balboa Boulevard
- Sherman Way and Genesta Avenue

Existing and Cumulative Traffic Conditions

Traffic counts were obtained for vehicular turning movements at the study intersections. The counts were conducted during the AM and PM peak hours on November 2, 2022. Future peak hour traffic projections for the study intersections are estimated to include future growth due to related projects in development and ambient traffic growth. To account for the future traffic growth from intensification of existing developments, and other projects that are located further than a half mile from the project site, the existing traffic volumes were increased by an ambient growth rate of 1% per year to the anticipated year of completion, 2025.

LADOT finds that the transportation assessment adequately evaluated potential project-related delays and level of service at the studied intersections. Based on the HCM methodology, the results for the Existing (2022), Existing (2022) Plus Project, Future (2025) Without Project, and Future (2025) With Project conditions, including Summary of Delays, Levels of Service, and Vehicle Queues are shown in **Attachment B**.

PROJECT REQUIREMENTS

A. CEQA-Related Mitigation

There are no CEQA mitigation requirements required for this project.

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. 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 prior to the start of any construction work. Refer to <https://ladot.lacity.org/businesses/temporary-traffic-control-plans> to determine which section to coordinate 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.

2. Highway Dedication and Street Widening Requirements

Per the Mobility Element of the General Plan, **Sherman Way** is designated as a Boulevard II roadway and would require a 40-foot half-width roadway within a 55-foot half-width right-of-way. **Genesta Avenue** is a designated Local Street and would require an 18-foot half-width roadway within a 30-foot half-width right-of-way. The applicant should check with Bureau of Engineering's Land Development Group to determine if there are any applicable highway dedication, street widening, and/or sidewalk requirements for this project.

3. Parking Requirements

The traffic study indicated that a total of 182 parking spaces and 57 bicycle parking spaces would be provided. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

4. Driveway Access and Circulation

Vehicular access will be provided via two driveways along the east side of Genesta Avenue as illustrated in **Attachment C**. The existing southerly driveway on Genesta Avenue will be relocated and the new driveway will be added north of the existing driveway.

The review of this study does not constitute approval of the existing driveway dimensions, access, and circulation scheme with regard to this project. Those elements require separate review and approval and should be coordinated with LADOT's Valley Planning Coordination Section (6262 Van Nuys Boulevard, Rm 320, @ 818-374-4699). To minimize and prevent last-minute design changes, the applicant should contact LADOT before the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. New driveways should be Case-2, designed with a recommended width of 28 feet for two-way operations, or 16 feet for one-way operations, or to the satisfaction of LADOT. Additionally, the applicant should check with City Planning regarding the project's vehicular access and design.

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 not yet 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 prior to the anticipated construction of this project, if approved.

6. 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 Sheila Ahoraian of my staff at (818) 374-4690.

Attachments

J:\Projects\SFV\53972-16949 W Sherman Way

cc: Marcos Sanchez, Council District 6
Silva Abramian, LADOT West Valley District
Ali Nahass, BOE Valley District
Quyen Phan, BOE Land Development Group
Jano Baghdanian, Jano Baghdanian & Associates

Attachment A

City of LA VMT Calculator Results

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project:

Scenario:

Address:

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

Yes
 No

Existing Land Use

Land Use Type	Value	Unit
Retail High-Turnover Sit-Down Restaurant	4.212	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 General Retail	5.3	ksf
Housing Multi-Family	111	DU
Retail General Retail	5.3	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
0 Daily Vehicle Trips	767 Daily Vehicle Trips
0 Daily VMT	6,017 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	767 Net Daily Trips
The net increase in daily VMT ≤ 0	6,017 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	5,300 ksf

The proposed project is required to perform VMT analysis.

Attachment A (cont'd)

City of LA VMT Calculator Results

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: Sherman Way Mixed-Use

Scenario:

Address: 16949 SHERMAN WY, 91406

Proposed Project Land Use Type	Value	Unit
Housing Multi-Family	111	
Retail General Retail	5.3	

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 <input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	
Include Bike Parking Per LAMC	Select Proposed Prj or Mitigation to include this strategy <input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	
Include Secure Bike Parking and Showers	Select Proposed Prj or Mitigation to include this strategy <input type="checkbox"/> Proposed Prj <input type="checkbox"/> Mitigation	
G Neighborhood Enhancement		

Analysis Results

Proposed Project	With
767 <small>Daily Vehicle Trips</small>	767 <small>Daily Vehicle Trips</small>
6,017 <small>Daily VMT</small>	6,017 <small>Daily VMT</small>
8.6 <small>Household VMT per Capita</small>	8.6 <small>Household VMT</small>
N/A <small>Work VMT per Employee</small>	N/A <small>Work VMT per Employee</small>

Significant VMT Impact?

Household: No Threshold = 9.4 15% Below APC	Household: No Threshold = 9.4 15% Below APC
Work: N/A Threshold = 11.6 15% Below APC	Work: N/A Threshold = 11.6 15% Below APC

Attachment B

Summary of Delay and Levels of Service (LOS)

TABLE 19A – Summary of Delays, Level of Service and Vehicle Queues

Summary of Delays, Levels of Service, and Vehicle Queues

No.	Intersection	Operation Type	Direction	Traffic Movement	Peak Hour	Existing			Existing + Project			Change in Queue Length (ft)	Future w/o Project			Future + Project			Change in Queue Length (ft)	
						Delay (sec)	LOS	Queue (ft)	Delay (sec)	LOS	Queue (ft)		Delay (sec)	LOS	Queue (ft)	Delay (sec)	LOS	Queue (ft)		
1	Sherman Way & Lucile Ave	Signalized	EB	Left	AM	20.8	C	38	21.9	C	38	0	22.7	C	42	22.7	C	42	0	
					PM	27.1	C	62	27.1	C	61	0	28.6	C	76	29.7	C	70	0	
				Thru	AM	13.1	B	139	13.1	B	239	0	14.1	B	257	14.1	B	258	1	
					PM	13.7	B	229	13.7	B	231	2	14.7	B	247	14.7	B	248	2	
			WB	Left	AM	49.1	E	243	49.1	E	244	1	47.4	F	238	47.6	F	268	0	
					PM	49.7	D	208	49.9	D	108	0	44	D	126	44.1	D	125	-1	
				Thru	AM	24.4	B	216	24.4	B	207	1	23.3	B	231	23.3	B	265	2	
					PM	25.6	C	306	25.7	C	306	0	26.4	C	326	26.7	C	327	1	
			NB	Left	AM	36.3	D	18	36.3	D	50	0	36	D	57	36	D	57	0	
					PM	26.7	C	45	26.7	C	45	0	26.1	C	45	26.1	C	45	0	
				Thru Right	AM	26.9	C	169	26.9	C	169	0	26.9	C	176	26.9	C	175	0	
					PM	27.1	C	202	27.1	C	202	0	26.5	C	207	26.5	C	209	0	
SB	Left	AM	33.0	D	72	33.0	D	72	0	33.7	D	74	33.7	D	74	0				
		PM	38.5	D	92	38.5	D	91	0	38.4	D	95	38.4	D	95	0				
	Thru Right	AM	29	C	207	29	C	207	0	27.3	C	211	27.3	C	211	0				
		PM	23.1	C	99	23.1	C	93	0	22.4	C	95	22.4	C	95	0				
2	Sherman Way & Arroyo Ave	Signalized	EB	Left	AM	17.7	B	7	17.7	B	7	0	18.6	B	7	18.7	B	7	0	
					PM	1.1	A	5	1.1	A	5	0	1.2	A	5	1.2	A	5	0	
				Thru Right	AM	19	B	305	19	B	305	0	18.7	B	325	18.7	B	325	0	
					PM	0.4	A	39	0.4	A	39	0	0.4	A	42	0.4	A	42	0	
			WB	Left	AM	29.0	C	131	30	C	137	0	34.7	C	130	34.8	C	140	0	
					PM	4.9	A	44	4.9	A	44	0	5.2	A	56	5.2	A	51	-1	
				Thru Right	AM	4.9	A	219	4.9	A	160	1	5.2	A	171	5.2	A	172	1	
					PM	4.4	A	139	4.4	A	139	0	4.6	A	139	4.6	A	150	1	
			NB	Thru Left Right	AM	39.6	D	147	39.6	D	147	0	39.4	D	253	39.4	D	153	0	
					PM	40.3	D	128	40.3	D	128	0	40.1	D	134	40.1	D	135	1	
				SB	Thru Left Right	AM	34.3	C	48	34.3	C	48	0	33.9	C	49	33.9	C	49	0
						PM	35.4	D	47	35.4	D	47	0	35.2	D	48	35.2	D	48	0
3	Sherman Way & Robles Blvd	Signalized	EB	Left	AM	31.1	D	94	31.2	D	96	2	32.2	C	99	32.6	C	102	3	
					PM	63.7	E	236	67.5	E	300	4	61.0	F	315	65.4	F	317	2	
				Thru Right	AM	46.5	D	456	48	D	475	17	48.7	D	480	50.5	D	520	31	
					PM	41.2	D	419	41.7	D	426	7	42.9	D	436	43.4	D	442	6	
			WB	Left	AM	107.2	C	331	112.3	C	332	0	124.8	F	344	128.4	F	344	0	
					PM	34.3	C	158	34.8	E	158	0	34.6	D	158	37.2	D	168	0	
				Thru Right	AM	40.5	D	448	42.8	D	447	1	42.0	D	446	42.7	D	448	2	
					PM	41.7	D	394	42.1	D	398	4	43.1	D	411	43.5	D	438	5	
			NB	Left	AM	26.4	C	73	26.4	C	75	2	26.7	C	74	26.7	C	77	3	
					PM	25.5	C	92	25.4	C	99	7	25.9	C	94	26	C	102	8	
				Thru Right	AM	34.1	C	270	34.5	C	272	0	34.9	C	287	34.9	C	287	0	
					PM	39.7	D	369	39.7	D	369	0	41.1	D	393	41.1	D	393	0	
SB	Left	AM	36.5	D	218	36.6	D	217	-1	45.5	D	257	45.6	D	257	0				
		PM	55.5	E	316	55.9	E	326	0	79.6	E	336	73.8	E	336	0				
	Thru Right	AM	31.2	C	319	32.4	C	320	1	32.9	C	335	33.2	C	336	1				
		PM	32.2	C	292	32.7	C	292	0	33.1	C	311	33.6	C	311	0				
4	Sherman Way & Geneva Ave	Stop Controlled	EB	Left	AM	22	C	5	22.3	C	5	0	23.1	C	5	23.5	C	5	0	
					PM	20.1	C	5	21	C	5	0	21	C	5	21.9	C	7.3	2.3	
			SB	Left	AM	34.4	D	12.5	64.1	F	70	47.5	37.6	E	25	35.4	F	80	55	
					PM	23.0	C	7.5	37.0	E	25	17.5	25.9	D	3.5	41.5	E	27.5	20	

Attachment B (cont'd) Summary of Delay and Levels of Service (LOS)

TABLE 19B – Summary of Signalized Intersection LOS

Summary of Signalized Intersection Queueing Thresholds

<i>Intersection</i>	<i>Peak Period</i>	<i>Future Intersection LOS With Project</i>	<i>Maximum Increase in Queue Length with Project Traffic</i>	<i>Movement</i>	<i>Approach LOS</i>	<i>Unacceptable Queueing?¹</i>
<i>Sherman Way & Louise Ave</i>	<i>AM</i>	C	2 ft	WB Thru	C	No
	<i>PM</i>	C	2 ft	WB Thru	C	No
<i>Shermany Way & Amestoy</i>	<i>AM</i>	B	1 ft	WB Thru	A	No
	<i>PM</i>	A	1 ft	WB Thru	A	No
<i>Sherman Way & Balboa Blvd</i>	<i>AM</i>	D	31 ft	EB Thru	D	No
	<i>PM</i>	D	6 ft	EB Thru	D	No

1. LADOT Traffic Study Guidelines defines unacceptable queueing as either: 1) 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 2) 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

Attachment C Project Site Plan

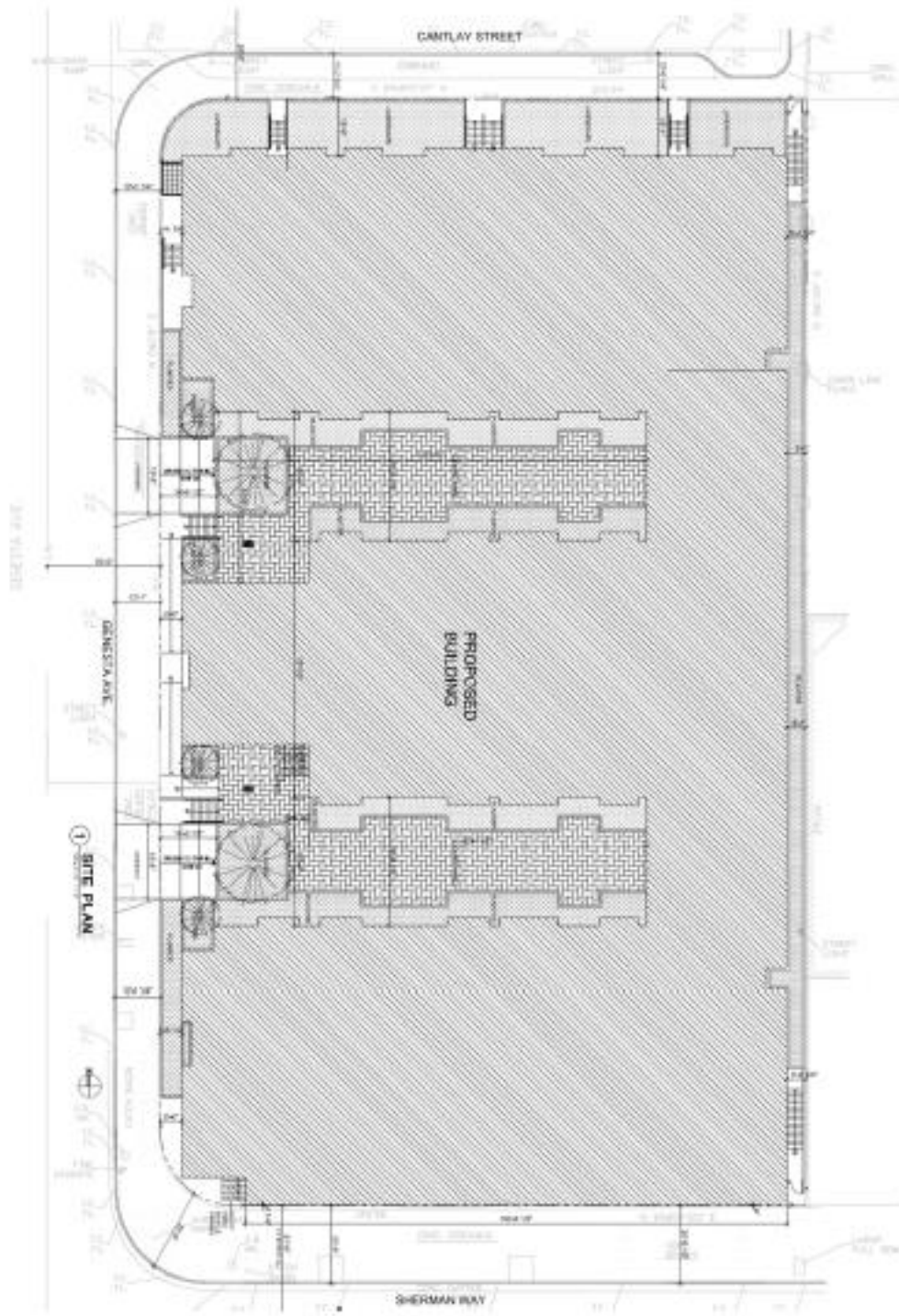


EXHIBIT D

Public Correspondence



Esther Ahn <esther.ahn@lacity.org>

Neighbors OPPOSED to ENV-2022-7855-MND

5 messages

Yun Choi <ydc2@georgetown.edu>

Mon, Nov 13, 2023 at 8:12 PM

To: esther.ahn@lacity.org

Cc: clatham1986@gmail.com, musiquegal777@gmail.com, sandy.lucero@yahoo.com

Hi Ms. Ahn,

My name is Yun Choi, and I am the homeowner of 16927 Enadia Way, Lake Balboa. I am writing this email on behalf of my family and my fellow neighbors (the Luceros who live at 16933 Enadia Way and the Lathams who live at 16932 Enadia Way) in response to the proposed large apartment/commercial building that will be built off of Sherman Way and Genesta (ENV-2022-7855-MND).

I want you to know that though we will be unable to attend this meeting, we are **STRONGLY OPPOSED** to the building of a large apartment complex within our community. The Lathams and Luceros have been living in this neighborhood for more than twenty years and have a strong love for this community. And I am a family man with two young children who had the privilege to move into the neighborhood over four years ago. This is a tight nit community that prides itself in being a suburban oasis in the midst of the urban sprawl of greater Los Angeles. Despite its proximity to main roads and commercial retail lots, this neighborhood has minimal car traffic (aside from school drop offs and pickups), making it a great neighborhood for people to walk their dogs, go for runs, and ride their bicycles without fear of being struck by a car. In fact, my boys, wife, and I frequently run along Amestoy in between Vanowen and Saticoy. Moreover, we feel safe in our community; we know most of our nearby neighbors, the crime rates are low in comparison to greater Van Nuys, and loitering is non-existent. For these reasons and more, many young families have moved into our neighborhood.

Our fear (and I am confident the shared concern of many homeowners in our community) in having a large apartment complex being built with commercial retail space is that this will ultimately compromise the safety and peace of our neighborhood. This development will greatly increase congestion and street parking, making it less safe for children and adults to go for walks, to ride bicycles, and to play outside. And the proposal to reduce apartment parking capacity will not stop people from bringing their vehicles; people will park their cars on the street, limiting street parking for the actual homeowners. This will also attract a large population of people who are unlikely to be long-term vested members of the community. With an influx of people moving in and increased foot traffic from the retail spaces, crime, litter, and loitering will all inevitably increase. For these reasons, we are strongly opposed to the construction of this apartment complex.

Thank you for your time and consideration. If you have any further questions regarding this issue, please feel free to email me, Yun Choi (ydc2@georgetown.edu).

Sincerely,

The Latham's, the Lucero's, and the Choi's

sandy lucero <sandy.lucero@yahoo.com>

Mon, Nov 13, 2023 at 8:33 PM

To: Yun Choi <ydc2@georgetown.edu>, esther.ahn@lacity.org

Cc: clatham1986@gmail.com, musiquegal777@gmail.com

I agree with you.

[Sent from Yahoo Mail for iPhone](#)

[Quoted text hidden]

sandy lucero <sandy.lucero@yahoo.com>

Mon, Nov 13, 2023 at 8:35 PM

To: Yun Choi <ydc2@georgetown.edu>, esther.ahn@lacity.org

Cc: clatham1986@gmail.com, musiquegal777@gmail.com

I am opposed to the proposed apartment building project.

Thank you,

Sandy & Art Lucero

Sent from Yahoo Mail for iPhone

[Quoted text hidden]

Christopher Latham <clatham1986@gmail.com>

Mon, Nov 13, 2023 at 9:41 PM

To: Yun Choi <ydc2@georgetown.edu>

Cc: esther.ahn@lacity.org, Cara Tadman <musiquegal777@gmail.com>, sandy.lucero@yahoo.com

We STRONGLY AGREE with the Choi's.

Sincerely,

The Latham's

[Quoted text hidden]

Esther Ahn <esther.ahn@lacity.org>

Tue, Nov 14, 2023 at 11:43 AM

To: Christopher Latham <clatham1986@gmail.com>

Cc: Yun Choi <ydc2@georgetown.edu>, Cara Tadman <musiquegal777@gmail.com>, sandy.lucero@yahoo.com

Hello all,

I am confirming receipt of this letter and follow-up emails for inclusion in the case file and public record.

Many thanks,

Esther

[Quoted text hidden]

--



LOS ANGELES
CITY PLANNING

Esther Ahn

City Planner

Los Angeles City Planning

200 N. Spring St., Room 763

Los Angeles, CA 90012

T: (213) 978-1486 | Planning4LA.org



EXHIBIT E
Agency Reports

**CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE**

Date: September 18, 2023

To: Vincent P. Bertoni, Director
Department of City Planning
Attn: Esther Ahn (City Planner)

From: Bertram Moklebust, Principal Civil Engineer
Permit Case Management Division
Bureau of Engineering (BOE)

Subject: **Case No. CPC-2022-7854-ZCJ-SPR-WDI-HCA (16949-16955 West Sherman Way)**

The following recommendations identifying the infrastructure deficiencies adjacent to the above-referenced site. The recommendations are respectfully submitted for your consideration in the approval of a Zone Change JJJ, Site Plan Review, Waiver of Dedications and Improvements and Housing Crisis Act application:

1. Dedication Required:

Sherman Way (Boulevard II) – None.

Genesta Avenue (Local Street) – None.

Cantlay Street (Local Street) – A variable width strip of land along the property frontage to complete a standard turn around at the terminus of Cantlay Street.

2. Improvements Required:

Sherman Way – Remove and replace any existing broken curb, gutter and sidewalk along the property frontage. Close all unused driveways with full-height curb, gutter and concrete sidewalk. Upgrade all curb ramps to City Standards and to comply with ADA requirements.

Genesta Avenue – Construct a new 2-foot integral concrete curb and gutter and remove and replace all broken, cracked/damaged existing concrete sidewalk along the property frontage. Construct new ADA compliant driveways. Close all unused driveways with full-height curb, gutter and concrete sidewalk.

Cantlay Street – Construct suitable surfacing to complete turnaround area at the terminus of Cantlay Street satisfactory to the B-Permit Valley Engineering District Office.

Notes: Broken curb and/or gutter includes segments within existing score lines that are depressed or upraised by more than ¼ inch from the surrounding concrete work or are separated from the main body of the concrete piece by a crack through the entire vertical segment and greater than 1/8 inch at the surface of the section.

Non-ADA compliant sidewalk shall include any sidewalk that has a cross slope that exceeds 2% and/or is depressed or upraised by more than ¼ inch from the surrounding concrete work or has full concrete depth cracks that have separations greater than 1/8 inch at the surface. The sidewalk also includes that portion of the pedestrian path of travel across a driveway.

All new sidewalk curb and gutter shall conform to the Bureau of Engineering Standard Plans S410-2, S440-4, S442-6 and S444-0.

Install tree wells with root barriers and plant street trees satisfactory to the City Engineer and the Urban Forestry Division of the Bureau of Street Services. The applicant should contact the Urban Forestry Division for further information (213) 847-3077 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Notes: Street lighting may be required satisfactory to the Bureau of Street Lighting (213) 847-1551 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Department of Transportation may have additional requirements for dedication and improvements.

Refer to the Department of Transportation regarding traffic signals, signs and equipment (818) 374-4699 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Regarding any conflicts with power pole matters, contact the Department of Water and Power at (213) 367-2715 or via <https://appointments.lacity.org/apptsys/Public/Account>.

Refer to the Fire Department Hydrants and Access Unit regarding fire hydrants (818) 374-5005 or via <https://appointments.lacity.org/apptsys/Public/Account>.

3. Provide proper drainage for street being improved and for the site being developed.

4. Sewer mainlines exist along Genesta Avenue and Sherman Way. All Sewerage Facilities Charges and Bonded Sewer Fees are to be paid prior to obtaining a building permit.
5. The Bureau of Sanitation may need to investigate the existing public sewers for sufficient capacity to facilitate the proposed development. Submit a request to the Public Counter of the Valley District Office of the Bureau of Engineering (818) 374-5090 or via <https://appointments.lacity.org/apptsys/Public/Account>.
6. Submit shoring and lateral support plans to the Bureau of Engineering Valley District for review and approval prior to excavating to the public right-of-way (818) 374-5090 or via <https://appointments.lacity.org/apptsys/Public/Account>.
7. Submit a parking area and driveway plan to the Valley District Office of the Bureau of Engineering and the Department of Transportation for review and approval.

Any questions regarding this report may be directed to Quyen Phan of the Permit Case Management Division, via quyen.phan@lacity.org.

CITY OF LOS ANGELES
INTER-DEPARTMENTAL MEMORANDUM

16955 W Sherman Way
LADOT Project ID No. 55811

Date: July 19, 2023

To: Deputy Advisory Agency
Department of City Planning

From: Miguel Crisostomo, Transportation Engineering Associate I
Department of Transportation

Subject: **Parcel Map No. CPC-2022-7854-ZCJ-SPR-WDI-HCA**
ENV-2022-7855-EAF

Reference is made to your request for review of this case regarding potential traffic access problems. Based upon this review, it is recommended that:

1. A minimum 20-foot reservoir space is required between any security gate or parking space and the property line, or to the satisfaction of LADOT.
2. A two-way driveway width of W=28 feet is required for all driveways, or to the satisfaction of LADOT.
3. A parking area and driveway plan should be submitted to the Citywide Planning Coordination Section of the Los Angeles Department of Transportation for approval prior to submittal of building permit plans for plan check by the Department of Building and Safety. Transportation approvals are conducted at 6262 Van Nuys Blvd., Room 320, Van Nuys, CA 91401.
4. The report fee and condition clearance fee be paid to the Los Angeles Department of Transportation as required per Ordinance No. 183270 and LAMC Section 19.15 prior to recordation of the final map. Note: The applicant may be required to comply with any other applicable fees per this new ordinance.

If you have any questions, you may contact me at Miguel.crisostomo@lacity.org or 818-374-4699.

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

July 13, 2023

TO: Vincent Bertoni, AICP, Director of Planning
Department of City Planning
Attention: planning.expedited@lacity.org

FROM: Los Angeles Fire Department

SUBJECT: **CPC-2022-7854.:16955 Sherman Way**

Submit plot plans for Fire Department approval and review prior to recordation of City Planning Case.

RECOMMENDATIONS:

Access for Fire Department apparatus and personnel to and into all structures shall be required.

Address identification. New and existing buildings shall have approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property.

One or more Knox Boxes will be required to be installed for LAFD access to project. Location and number to be determined by LAFD Field Inspector. (Refer to FPB Req # 75).

The entrance or exit of all ground dwelling units shall not be more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

No building or portion of a building shall be constructed more than 150 feet from the edge of a roadway of an improved street, access road, or designated fire lane.

Fire Lane Requirements:

- 1) Fire lane width shall not be less than 20 feet. When a fire lane must accommodate the operation of Fire Department aerial ladder apparatus or where fire hydrants are installed, those portions shall not be less than 28 feet in width.
- 2) The width of private roadways for general access use and fire lanes shall not be less than 20 feet, and the fire lane must be clear to the sky.
- 3) Fire lanes, where required and dead ending streets shall terminate in a cul-de-sac or other approved turning area. No dead ending street or fire lane shall be greater than 700 feet in length or secondary access shall be required.
- 4) Submit plot plans indicating access road and turning area for Fire Department approval.
- 5) All parking restrictions for fire lanes shall be posted and/or painted prior to any Temporary Certificate of Occupancy being issued.
- 6) Plans showing areas to be posted and/or painted, "FIRE LANE NO PARKING" shall be submitted and approved by the Fire Department prior to building permit application sign-off.
- 7) Electric Gates approved by the Fire Department shall be tested by the Fire Department prior to Building and Safety granting a Certificate of Occupancy.
- 8) All public street and fire lane cul-de-sacs shall have the curbs painted red and/or be posted "No Parking at Any Time" prior to the issuance of a Certificate of Occupancy or Temporary Certificate of Occupancy for any structures adjacent to the cul-de-sac.
- 9) No framing shall be allowed until the roadway is installed to the satisfaction of the Fire Department.

Construction of public or private roadway in the proposed development shall not exceed 10 percent in grade.

On small lot subdivisions, any lots used for access purposes shall be recorded on the final map as a "Fire Lane".

Private development shall conform to the standard street dimensions shown on Department of Public Works Standard Plan S-470-0.

Standard cut-corners will be used on all turns.

The Fire Department may require additional vehicular access where buildings exceed 28 feet in height.

Where above ground floors are used for residential purposes, the access requirement shall be interpreted as being the horizontal travel distance from the street, driveway, alley, or designated fire lane to the main entrance of individual units.

The following recommendations of the Fire Department relative to fire safety shall be incorporated into the building plans, which includes the submittal of a plot plan for approval by the Fire Department either prior to the recordation of a final map or the approval of a building permit. The plot plan shall include the following minimum design features: fire lanes, where required, shall be a minimum of 20 feet in width; all structures must be within 300 feet of an approved fire hydrant, and entrances to any dwelling unit or guest room shall not be more than 150 feet in distance in horizontal travel from the edge of the roadway of an improved street or approved fire lane.

2014 CITY OF LOS ANGELES FIRE CODE, SECTION 503.1.4 (EXCEPTION)

- a. When this exception is applied to a fully fire sprinklered residential building equipped with a wet standpipe outlet inside an exit stairway with at least a 2 hour rating the distance from the wet standpipe outlet in the stairway to the entry door of any dwelling unit or guest room shall not exceed 150 feet of horizontal travel AND the distance from the edge of the roadway of an improved street or approved fire lane to the door into the same exit stairway directly from outside the building shall not exceed 150 feet of horizontal travel.
- b. It is the intent of this policy that in no case will the maximum travel distance exceed 150 feet inside the structure and 150 feet outside the structure. The term "horizontal travel" refers to the actual path of travel to be taken by a person responding to an emergency in the building.
- c. This policy does not apply to single-family dwellings or to non-residential buildings.

Site plans shall include all overhead utility lines adjacent to the site.

Where access for a given development requires accommodation of Fire Department apparatus, overhead clearance shall not be less than 14 feet.

FPB #105

5101.1 Emergency responder radio coverage in new buildings. All new buildings shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. This section shall not require improvement of the existing public safety communication systems.

That in order to provide assurance that the proposed common fire lane and fire protection facilities, for the project, not maintained by the City, are properly and adequately maintained, the sub-divider shall record with the County Recorder, prior to the recordation of the final map, a covenant and agreement (Planning Department General Form CP-6770) to assure the following:

- A. The establishment of a property owners association, which shall cause a yearly inspection to be, made by a registered civil engineer of all common fire lanes and fire protection facilities. The association will undertake any necessary maintenance and corrective measures. Each future property owner shall automatically become a member of the association or organization required above and is automatically subject to a proportionate share of the cost.
- B. The future owners of affected lots with common fire lanes and fire protection facilities shall be informed of their responsibility for the maintenance of the devices on their lots. The future owner and all successors will be presented with a copy of the maintenance program for their lot. Any amendment or modification that would defeat the obligation of said association as the Advisory Agency must approve required hereinabove in writing after consultation with the Fire Department.
- C. In the event that the property owners association fails to maintain the common property and easements as required by the CC and R's, the individual property owners shall be responsible for their proportional share of the maintenance.
- D. Prior to any building permits being issued, the applicant shall improve, to the satisfaction of the Fire Department, all common fire lanes and install all private fire hydrants to be required.
- E. That the Common Fire Lanes and Fire Protection facilities be shown on the Final Map.

The plot plans shall be approved by the Fire Department showing fire hydrants and access for each phase of the project prior to the recording of the final map for that phase. Each phase shall comply independently with code requirements.

Any roof elevation changes in excess of 3 feet may require the installation of ships ladders.

Provide Fire Department pathway front to rear with access to each roof deck via gate or pony wall less than 36 inches.

Building designs for multi-storied residential buildings shall incorporate at least one access stairwell off the main lobby of the building; But, in no case greater than 150ft horizontal travel distance from the edge of the public street, Private Street or Fire Lane. This stairwell shall extend onto the roof.

Entrance to the main lobby shall be located off the address side of the building.

Any required Fire Annunciator panel or Fire Control Room shall be located within 20ft visual line of site of the main entrance stairwell or to the satisfaction of the Fire Department.

Where rescue window access is required, provide conditions and improvements necessary to meet accessibility standards as determined by the Los Angeles Fire Department.

Adequate off-site public and on-site private fire hydrants may be required. Their number and location to be determined after the Fire Department's review of the plot plan.

Any required fire hydrants to be installed shall be fully operational and accepted by the Fire Department prior to any building construction.

The applicant is further advised that all subsequent contact regarding these conditions must be with the Hydrant and Access Unit. This would include clarification, verification of condition compliance and plans or building permit applications, etc., and shall be accomplished **BY APPOINTMENT ONLY**, in order to assure that you receive service with a minimum amount of waiting please call **(213) 482-6543**. You should advise any consultant representing you of this requirement as well.

Kristin M. Crowley
Fire Chief

David Perez, Fire Marshal
Bureau of Fire Prevention and Public Safety

DP:MRC:mrc

CPC-2022-7854.:16955 Sherman Way

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(213) 202-2633

Letter sent via email to:
Planning.expedited@lacity.org

August 23, 2023

Vincent P. Bertoni, Director of Planning
200 N. Spring Street, Room 721
Los Angeles, CA 90012

**DEPARTMENT OF RECREATION AND PARKS REPORT AND RECOMMENDATIONS
RELATIVE TO CPC-2022-7854-ZCJ-SPR-WDI-HCA**

Dear Mr. Bertoni:

The City of Los Angeles Department of Recreation and Parks (RAP) has prepared the following report and recommendations in response to your request for comments relative to CPC-2022-7854-ZCJ-SPR-WDI-HCA (project), a proposed subdivision project.

The proposed project has no anticipated recreation and park impacts therefore RAP has no recommendations regarding this project.

Thank you for the opportunity to provide information relative to recreation and park issues related to this proposed project. If you have any questions or comments regarding this information please feel free to contact Park Fees staff, at 213-202-2682, at your convenience.

Sincerely,

DARRYL FORD
Superintendent

DF:sb

cc: Egish Kuumjian, Lion Signature, INC. 100 Franklin Court, Glendale, CA 91205
Eric Lieberman, QES, INC. 14549 Archwood Street, Van Nuys, CA 91405
Aram Alajajian, Alajajian Marcoosi Archetects INC., 320 West Arden Avenue, Glendale, CA 91203



CPC-2022-7854-ZCJ-SPR-WDI-HCA Report and Recommendations

August 23, 2023

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cc: Reading file

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

Date: 7/18/2023

To: Charlie Rausch, Senior City Planner
Department of City Planning
200 N. Spring St., 6th Floor MS-395

From: 
Gil De La Cruz, P.E.
Case Management Supervisor
Private Development Division
Bureau of Street Lighting

SUBJECT: STREET LIGHTING REQUIREMENTS FOR DISCRETIONARY ACTIONS

CITY PLANNING CASE No.: CPC 2022-7854 ZCJ SPR WDI
16955 W SHERMAN WAY

The Bureau of Street Lighting's recommended condition of approval for the subject city planning case is as follows: (Improvement condition added to S-3 (c) where applicable.)

SPECIFIC CONDITION: Prior to the recordation of the final map or issuance of the Certificate of Occupancy (C of O), street lighting improvement plans shall be submitted for review and the owner shall provide a good faith effort via a ballot process for the formation or annexation of the property within the boundary of the development into a Street Lighting Maintenance Assessment District.

IMPROVEMENT CONDITION: Construct new street lights: one (1) on Genesta Ave, and one (1) on Sherman Way. If street widening per BOE improvement conditions, relocate and upgrade street lights: two (2) on Cantlay St and one (1) on Genesta Ave.

NOTES:


The quantity of street lights identified may be modified slightly during the plan check process based on illumination calculations and equipment selection.

Conditions set: 1) in compliance with a Specific Plan, 2) by LADOT, or 3) by other legal instrument excluding the Bureau of Engineering conditions, requiring an improvement that will change the geometrics of the public roadway or driveway apron may require additional or the reconstruction of street lighting improvements as part of that condition.

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

DATE: July 12, 2023

TO: Heather Bleemers, Senior City Planner
Department of City Planning

FROM:  Bryan Ramirez, Street Tree Superintendent I
Bureau of Street Services, Urban Forestry Division

SUBJECT: CPC-2022-7854-ZCJ-SPR-WDI-HCA - 16955 W. Sherman Wy.

In regard to your request for review of this case regarding Urban Forestry requirements, it is our recommendation that:

1. STREET TREES

- a. Project shall preserve all healthy mature street trees whenever possible. All feasible alternatives in project design should be considered and implemented to retain healthy mature street trees. A permit is required for the removal of any street tree and shall be replaced 2:1 as approved by the Board of Public Works and Urban Forestry Division.
- b. When street dedications are required and to the extent possible, the project shall provide larger planting areas for existing street trees to allow for growth and planting of larger stature street trees. This includes and is not limited to parkway installation and/or enlargement of tree wells and parkways.
- c. Plant street trees at all feasible planting locations within dedicated streets as directed and required by the Bureau of Street Services, Urban Forestry Division. All tree plantings shall be installed to current tree planting standards when the City has previously been paid for tree plantings. The sub divider or contractor shall notify the Urban Forestry Division at: (213) 847-3077 upon completion of construction for tree planting direction and instructions.

Note: Removal of street trees requires approval from the Board of Public Works. All projects must have environmental (CEQA) documents that appropriately address any removal and replacement of street trees. Contact Urban Forestry Division at: (213) 847-3077 for tree removal permit information.

BR:djm:df