



## DISCUSSION CALENDAR

### Agenda Item # 5

## AGENDA REPORT SUMMARY

**Meeting Date:** November 13, 2018

**Subject:** Proposed Five-Story, 50-Unit Multiple-Family Building at 4856 El Camino Real

**Prepared by:** Zachary Dahl, Planning Services Manager

**Reviewed by:** Jon Biggs, Community Development Director

**Approved by:** Chris Jordan, City Manager

**Attachment(s):**

1. Resolution No. 2018-42
2. Applicant Cover Letter
3. Planning Commission Meeting Minutes, September 20, 2018
4. Planning Commission Agenda Report, September 20, 2018
5. Public Correspondence
6. Project Design Revisions Supplemental Plans
7. Full Project Plans

**Initiated by:**

Applicant and Owner – Mircea Voskerician, LuxOne LLC

**Previous Council Consideration:**

- January 16, 2018 (City Council-Planning Commission Joint Study Session)
- May 8, 2018 (Story Pole Exemption Request)
- July 10, 2018 (Story Pole Exemption Request)

**Fiscal Impact:**

The project will result in the following estimated financial contributions to the City:

- Park in-Lieu Fees: \$1,775,000 (\$35,500/multiple-family dwelling unit)
- Traffic Impact Fees: \$207,950 (\$4,159/multiple-family dwelling unit)

**Environmental Review:**

The project is exempt from environmental review as in-fill development in accordance with Section 15332 of the California Environmental Quality Act of 1970 as amended.

**Policy Question(s) for Council Consideration:**

- Is the proposal of the eight (8) affordable (below market rate) units in exchange for a density bonus, incentives, waivers and parking requirement alteration consistent with State Law and the City's Affordable Housing Ordinance?



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- Does the proposal meet the required findings for design review, a use permit and subdivision per the Los Altos Municipal Code?

**Summary:**

- This is a development proposal for a new five-story, multiple-family residential building with 50 condominium units, a rooftop common area and a two-level underground parking garage
- The proposal is offering two moderate-income and six very-low-income affordable housing units for sale, 28.6 percent of the Project's base density, which qualifies the project for a density bonus, incentives, waivers and a parking requirement alteration. The proposal is seeking a 75.25 percent density bonus, development incentives to allow for increased height and a reduced rear yard setback, waivers to allow for a taller elevator tower and larger area for rooftop structures, and a reduction in the minimum onsite parking requirement
- The Complete Streets Commission and the Planning Commission have reviewed the proposal at public meetings and recommend approval of the project

**Planning Commission / Staff Recommendation:**

Adopt Resolution No. 2018-42, which will approve Design Review application 18-D-01, Use Permit application 18-UP-01 and Subdivision application 18-SD-01 for a new 50-unit multiple-family development at 4856 El Camino Real



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## **Purpose**

Consider the recommendation from the Planning Commission and take action on the development application, which includes design review, a use permit and a tentative map for a new five-story, 50-unit multiple-family condominium building at 4856 El Camino Real.

## **Background**

### *Site Setting*

The existing site, which includes two parcels, is designated as a “Thoroughfare Commercial” land use in the General Plan and Zoned CT (Commercial Thoroughfare). The site is 31,576 square feet (0.73 acres) in size and includes an existing one-story commercial building currently occupied with office uses at 4846 El Camino Real and a two-story mixed-use building with personal service and office uses at 4856 El Camino Real. It is adjacent to commercial uses to the northwest and across El Camino Real to the northeast, and multiple-family uses to the southwest (two-story apartment buildings) and southeast (new condominiums currently under construction).

### *El Camino Real Moratorium*

The project was originally scheduled for a Planning Commission study session on October 6, 2016. However, on October 4, 2016, the City Council held a special meeting to adopt an urgency ordinance to establish a temporary moratorium on development within the El Camino Real corridor. On November 15, 2016, the City Council extended the moratorium on development within the El Camino Real corridor for an additional four months in order to review the zoning regulations and design standards along El Camino Real. On March 14, 2017, the City Council extended the moratorium an additional eight months in order to continue their review of changes and updates to the zoning regulations. Subsequently, the City adopted Zoning Code amendments related to the site standards for the CT District (Ordinance No. 2017-436) and affordable housing (Ordinance No. 2017-435). On November 15, 2017, the moratorium expired and the development proposal on the project site was allowed to proceed again.

### *City Council-Planning Commission Joint Study Session*

On January 16, 2018, the City Council held a joint study session with the Planning Commission to consider, among other things, a proposal from the Applicant to evaluate two alternative designs for the multiple-family project on the site. Both projects would be five-stories and similar in overall size, but one would require a density bonus over 35 percent and offer the City additional affordable units. The first proposal included 38 units with five (5) affordable units, utilizing a 35-percent density bonus with mostly two- and three-bedroom units. The second proposal included 50 units with eight (8) affordable units, utilizing a 75.25 percent density bonus with an increased number of one- and two-bedroom units and fewer three-bedroom units. Following a presentation by the Applicant and public comment, the Council and Commission discussed the proposals, with a consensus of both bodies expressing support for the higher density proposal since it would provide the City with additional



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affordable units and reduce the average size of all the units in the project; thus, making them more affordable by design.

*Planning Commission Study Session*

On April 19, 2018, the Planning Commission held a study session to review and provide feedback on the project's architectural and site design. Overall, the Commission, with only four members present, expressed general support for the project design, but noted that it should consider an improved mix of exterior materials, reduce the amount of stucco used, make sure landscaping along the side property lines was shade tolerant, and consider a different mix of exterior colors. A copy of the Planning Commission study session minutes is included with the Planning Commission agenda report.

*Complete Streets Commission*

On May 23, 2018, the Complete Streets Commission held a public meeting to consider the Project. As specified by the Zoning Code, the Commission is tasked with reviewing the bicycle, pedestrian, parking and traffic elements of a development application and providing an advisory recommendation to the Planning Commission and City Council. The Commission expressed general support for the Project, but noted concern about the project increasing traffic on nearby side streets, potential parking spill-over on nearby residential streets and an increase in traffic on streets like Jordan Avenue, potentially creating an unsafe path for school kids. The Commission also expressed concern that the project's bike parking was underestimated, even though it significantly exceeded VTA's bicycle parking guidelines. Following the discussion, the Commission voted unanimously to recommend approval of the project to the Planning Commission and City Council. A copy of the Complete Streets Commission meeting minutes is included in the Planning Commission agenda report.

*Story Pole Exemption and Installation*

On May 8, 2018, the City Council held a public meeting to consider a request from the Applicant for an exemption from the City's Story Pole Policy due to safety concerns and impairment of the use of the existing structures on the site. The exemption request proposed a modified story pole plan that installed some, but not all, of the story poles required by the Policy. Following a discussion with the Applicant, the Council voted to approve the exemption request with the modified story pole plan.

On July 10, 2018, due to complications with the story pole installation, the Applicant returned to City Council and requested a full exemption from the City's Story Pole Policy. Following a discussion with the Applicant, the Council voted to deny the exemption request and directed staff to require the modified story pole plan be implemented before the project was scheduled for review by the Planning Commission.

On August 15, 2018, staff received a certification letter from the project's civil engineer verifying that the story poles had been installed per the approved plan. A copy of the certification letter and the approved story pole plan is included in the Planning Commission agenda report.



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### *Planning Commission*

On September 20, 2018 the Planning Commission held a public hearing to consider the Project. Following a presentation from the Applicant and project architect, Jeff Potts, and comments from one member of the public who expressed support, the Commission discussed the proposal. The Commission expressed general support for the Project, noting that the design had significantly improved to address past comments, the project plans and support information was very thorough and comprehensive, and the amount of onsite parking, bicycle parking and open space significantly exceed the minimum requirements. However, some concerns were raised regarding the mix of exterior materials, the amount of stucco that was proposed and that the number of affordable units may not justify the density bonus request. After the discussion, the Commission voted 6-1 to recommend approval of the Project with following additional recommendations:

- The exterior design should be updated to address the Planning Commission's concerns and come back to the Commission for final approval prior to submittal of a building permit;
- Consider increasing the size and/or number of bedrooms in the BMR units and modifying income levels to best meet the City's needs of for-sale BMR units;
- Add a finding that notes additional project amenities, such as parking ratio, significant amount of open space, bike parking, and larger side yard setback, contributed to approval of the 75% density bonus; and
- The Construction Management Plan should outline how construction parking impacts on the nearby neighborhood will be minimized.

The Planning Commission meeting minutes and agenda report are attached for reference (Attachments 3 and 4).

### **Discussion/Analysis**

#### *Design Revisions*

In response to the comments made by the Planning Commission, the Applicant made the following revisions to the Project:

- The size of the smallest one-bedroom affordable unit was increased by replacing unit 502, a 782 square-foot unit on the fifth floor, with unit 311, a 902 square-foot unit on the third floor;
- All foam window trim was removed, and the windows were recessed into the wall plane;
- The board formed concrete façade on the planters and lower walls was revised to be clad with tan/brown Equitone, a cement panel exterior cladding material, to improve the building's aesthetic and be more compatible with the other exterior materials;
- The Equitone cladding was also used to replace some of the stucco walls to reduce the amount of stucco used on the building;



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- The front entrance façade was revised to improve the design composition and breakup the appearance of it being a large glass storefront; and
- The design of the upper floor of the building was revised to include additional transom windows and lighter elements to avoid any perception of excessive bulk at the top of the building.

The applicant's cover letter (Attachment 2) provides additional information about the project revisions and the Supplemental Plans (Attachment 6) illustrate how the changes will be incorporated into the project. The full set of plans reviewed by the Planning Commission is included as Attachment 7.

#### *Planning Commission Recommendations*

To address the recommendations from the Planning Commission, Resolution No. 2018-42 has been updated to include a finding that notes the additional project amenities, such as parking ratio, significant amount of open space, bike parking, and larger side yard setback, contribute to approval of the 75.25 percent density bonus, and the Constriction Management Plan condition (No. 27) has been updated to ensure that construction vehicle parking will be managed to minimize impacts on nearby single-family neighborhoods.

With regard to increasing the size and/or number of bedrooms in the affordable units and modifying income levels to best meet the City's needs of for-sale affordable units, the applicant has upgraded the size of one of the one-bedroom affordable units. However, beyond that, it is up to the Council to determine if the proposed number, size and bedroom mix of affordable units is appropriate to support the density bonus request.

With regard to the Commission's recommendation that the exterior design should be updated to address their concerns and come back to the Commission for final approval prior to submittal of a building permit, the applicant has updated the exterior design of the project in an attempt to address the Commission's concerns. The Council should determine whether the design revisions are sufficient to address the issues raised by the Commission or if the project should be conditioned to go back to the Planning Commission for final exterior design approval. If the project is directed to go back to the Commission for final exterior design approval, the Council should provide direction on what exterior elements should be revised or updated.

#### *Affordable Housing - Density Bonus and Development Incentives*

The project exceeds the City's affordable housing regulations by providing eight (8) affordable housing units, where three (3) are required. Chapter 14.28 of the Municipal Code requires at least 10 percent of the units be affordable at the moderate and low/very-low income levels<sup>1</sup>. Since the base density for

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<sup>1</sup> Because the project application was deemed complete on June 8, 2018, it is not subject to the City's recently adopted 15 percent affordable housing requirement, which went into effect on October 26, 2018.



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the project is 28 dwelling units, the project must provide 2.8 (rounded up to three) affordable units. By providing two (2) moderate income units and one (1) very-low income unit, the project is in compliance with the City's Affordable Housing Ordinance.

Housing Element program 4.3.2 requires that affordable housing units generally reflect the size and number of bedrooms of the market rate units. In this case, the overall project is proposing nine (9) one-bedroom units, 30 two-bedroom units and 11 three-bedroom units. Of this unit mix, one (1) three-bedroom unit is designated affordable at the moderate income level, one (1) two-bedroom unit is proposed at the moderate income level and six (6) one-bedroom units are proposed at the very-low income level. While the mix of affordable units incorporates a larger number of one-bedroom units than the average of the market rate units, given the high percentage of overall affordable units proposed, it appears that this mix of affordable housing meets the intent of the program. However, as noted above, the Planning Commission recommended that the Council consider increasing the size and/or bedrooms in the affordable units and modifying income levels to best meet the City's needs of for-sale affordable units.

Under the State's density bonus regulations (Section 65915 of the California Government Code) and the City's Affordable Housing Ordinance (Zoning Code Chapter 14.28), the project qualifies for a density bonus if it provides at least five percent very-low income units. With six (6) affordable units at the very-low income level and two (2) affordable units at the moderate level, the project is providing a total of 28.6 percent of its base density as affordable, with 21.4 percent of the units affordable at the very-low income level. Since providing 11 percent very-low income units would entitle the project to receive a 35 percent density bonus, staff believes it is reasonable to consider affording a project such as this, with a substantially higher percentage of very-low income units, with a density bonus that exceeds the maximum the City would be required to allow under State law or the City's Affordable Housing Ordinance. Both State law and the City's Ordinance allow for the City to grant a density bonus over 35 percent if an appropriate number of additional affordable units are proposed. In this case, the Applicant is seeking a density bonus of 75.25 percent in exchange for the above-mentioned mix of affordable units. Specifically, Los Altos Municipal Code Section 14.28.040(E)(7) provides for "optional density bonuses," allowing the City to grant a density bonus greater than the percentage the project is entitled to as of right. The granting of the density bonus is further supported by the fact that the project is exceeding the minimum thresholds prescribed by the Zoning Code regarding onsite parking, side yard setbacks, open space (both private and common), and bicycle parking. Information to support the density bonus request is provided in the Applicant's Density Bonus Report, which is included in the Planning Commission agenda report.

In addition to the density bonus, since the project is providing more than 15 percent of its units as affordable at the very-low income level, it qualifies for three development incentives per State law and City Ordinance. To help guide incentives requested by developers and ensure that the incentives do not result in any adverse impacts, the City adopted a list of on-menu incentives or concessions.



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However, per State law and City Ordinance, a project may still request any incentive or concession that the applicant deems appropriate in exchange for the affordable units being provided (off-menu). In this case, the applicant is seeking a height incentive to allow the project to exceed the maximum height limit of 45-feet by 13-feet (off-menu) and to reduce the rear yard setback incentive for the upper floors of the building from 100 feet to 60 feet. Because the rear yard setback is being reduced by 40 percent, the request constitutes two on-menu (20 percent reduction) incentives.

The project is also seeking two waivers, which are considered more minor in nature, are necessary to construct the project and do not require use of an incentive or concession. In this case, the project is seeking a waiver for the height of its elevator tower to go beyond the 12-foot limit since there are no elevators commercially available that can comply with the 12-foot height limit for a building of this height. The project is also seeking a waiver to allow the size of the rooftop structures that enclose the elevator, stairways and trash chutes to exceed the maximum four percent threshold by 0.6 percent. Both of these waiver requests appear appropriate and reasonable for a project of this size and scope.

The project also qualifies for a parking requirement alteration per the City's Affordable Housing Ordinance. For projects that qualify for a density bonus, the minimum parking requirement, inclusive of handicapped and guest parking, shall be one onsite parking space for each one-bedroom unit and two onsite parking spaces for each two- or three-bedroom unit, if requested by the applicant. Since the project is providing 108 onsite parking spaces, where a minimum of 91 onsite parking spaces is required, it is exceeding the minimum permitted by the Code.

Under State law and City Ordinance, the City must give deference to the Applicant on granting the requested incentives and waivers unless it can make one or more of the following findings:

- The concession or incentive does not result in identifiable and actual cost reductions, consistent with the definition of "concession" or "incentive," to provide for affordable housing costs, as defined in Health & Safety Section 50052.5, or for rents for the targeted units to be set as specified in subsection (I);
- The concession or incentive would have a specific, adverse impact upon public health and safety or the physical environment or on any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact without rendering the development unaffordable to low-income and moderate-income households; or
- The concession or incentive would be contrary to state or federal law.

A Density Bonus Report that supports the density bonus and development incentive requests was prepared by the Applicant and is included as an attachment in the Planning Commission agenda report (Attachment 4).





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For reference, the moderate income housing units would be limited in cost to be affordable to a household that makes no more than 120 percent of the County's median income and the very-low income housing units would be limited in cost to be affordable to a household that makes no more than 50 percent of the County's median income. The County's 2018 median income for a family of four is \$125,200 per HCD calculations.

#### *Environmental Review*

The project site, which is 0.73 acres in size, is considered a small in-fill site that is substantially surrounded by urban uses and does not contain significant natural habitat for endangered species. The development proposal is consistent with the General Plan and Zoning Ordinance, does not result in any significant effects related to traffic, noise, air or water quality, and is adequately served by all required utilities and public services. Therefore, in accordance with Section 15332 of the California Environmental Quality Act (CEQA) Guidelines the project is exempt from further environmental review.

With regard to traffic, Implementation Program C8 in the General Plan's Circulation Element requires a transportation impact analysis (TIA) for projects that result in 50 or more net new daily trips. As outlined in the project's traffic report prepared by Hexagon Transportation Consultants (included in the Planning Commission agenda report, Attachment 4), the proposed project will generate 272 average daily trips as compared with the property's existing uses, which include a mix of office and personal service uses, that generate 228 average daily trips. Since the net increase is only 44 average daily trips, a full TIA is not required for this project.

With regard to air quality, since the project is located on a State Highway, the project could potentially expose long-term residents to air pollution and the project's construction has the potential to create short-term air pollution impacts. To address these potential impacts, an air quality and greenhouse gas emission assessment was prepared for the project by Illingworth & Rodkin (included in the Planning Commission agenda report, Attachment 4). The assessment provides appropriate mitigation measures for controlling dust and exhaust during construction, air filtration for the dwellings, and construction equipment emission guidelines. The report's recommended mitigations are included as conditions of approval. With regard to greenhouse gas emissions, the project does not exceed any of the significant thresholds as specified by the Bay Area Quality Management District's Clean Air Plan, so no mitigation measures are required. The applicant has also completed the City's Climate Action Plan checklist for new development (included in the Planning Commission agenda report, Attachment 4) and will be complying with all applicable requirements to ensure that the project supports the City's greenhouse gas emission reduction targets.

Regarding noise, due to the site's proximity to a State Highway, the project is located in an area that may expose its residents to higher noise levels and the project's rooftop mechanical equipment may generate off-site noise levels that exceed thresholds established in the City's Noise Control Ordinance.



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To address these potential noise impacts, a noise study was prepared by Wilson Ihrig (included in the Planning Commission agenda report, Attachment 4). To ensure that there are no significant noise impacts, the study recommends mitigation measures that specify certain types of exterior glazing, exterior wall construction and supplemental ventilation, and rooftop mechanical equipment noise controls so that the noise levels do not exceed City standards. Appropriate conditions of approval to ensure that the project is designed to comply with the noise study mitigation measures are included.

To evaluate potential tree impacts, an arborist report was prepared by Kiely Arborist Services (included in the Planning Commission agenda report, Attachment 4). The arborist report evaluated the condition of 13 existing trees on the site and along its El Camino Real frontage and provided tree protection measures for the trees that are proposed to remain. All significant trees on the site, which include the nine (9) mature redwood trees along the rear property line, are proposed to remain and are identified as being in good health. Four smaller trees, three of which are along El Camino Real, are proposed for removal. The tree protection measures for the redwood trees along the rear have been appropriately incorporated in the conditions of approval.

Overall, as documented above, the project's technical studies support the finding that the project meets the criteria and conditions to qualify as an in-fill development project that is exempt from further environmental review.

#### *Public Contact and Correspondence*

For this meeting and the Planning Commission public hearing, public meeting notices were mailed to the 154 property owners, business and residential tenants within 500 feet of the site. A public notice billboard with color renderings was installed along the project's El Camino Real frontage and story poles to represent the corners of the building and the elevator tower, as approved by the City Council (see discussion above) were installed.

In addition to the required public notification, the applicant has conducted specific outreach to the owners of the directly adjacent properties, the tenants in the apartment buildings to the rear and the owners of the Los Altos Square Townhomes to the south and west of the project. To-date, staff has not received any correspondence from any nearby property owners or tenants regarding this prospect. However, staff has received a letter of support for the project from Carl Guardino with the Silicon Valley Leadership Group (Attachment 5).

#### *City Council Action*

The necessary findings related to the project's environmental review, design review, use permit, subdivision and affordable housing/density bonus applications to approve the project are contained in Exhibit A of the Resolution, and appropriate conditions to ensure the project is properly implemented are contained in Exhibit B. Based on the information contained in this report, the options for City Council action are listed below.



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## Options

1) Approve Resolution No. 2018-42

**Advantages:** The project will replace an underdeveloped commercial property with a high-quality residential development that helps the City meet its goals for producing new housing units, both affordable and market rate

**Disadvantages:** Some existing commercial and office uses will be displaced

2) Do not approve Resolution No. 2018-42

**Advantages:** The existing commercial and office uses will be maintained

**Disadvantages:** The City will not make any progress on achieving its goals for the production of new housing units

## Recommendation

The Planning Commission and staff recommend Option 1.

**RESOLUTION NO. 2018-42**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LOS ALTOS MAKING FINDINGS, ADOPTING AN EXEMPTION UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND APPROVING THE DESIGN REVIEW, USE PERMIT AND SUBDIVISION APPLICATIONS FOR A NEW 50-UNIT MULTI-FAMILY PROJECT AT 4856 EL CAMINO REAL**

**WHEREAS**, the City of Los Altos received a development application from Mircea Voskerician, LuxOne LLC (Applicant), for a new 50-unit multiple-family residential building at 4846 and 4856 El Camino Real that includes Design Review 18-D-01, Use Permit 18-UP-01 and Subdivision 18-SD-01, referred to herein as the “Project”; and

**WHEREAS**, said Project is located in the CT District, which allows multiple-family housing as a conditional use at a maximum density of 38 dwelling units per net acre of land; and

**WHEREAS**, said Project has a net site area of 0.72 acres (31,576 square feet), which will allow for a base residential density of 28 dwelling units; and

**WHEREAS**, the Applicant is offering two moderate-income and six very-low-income affordable housing units for sale as part of the Project; and

**WHEREAS**, the Applicant’s proposed unit mix would consist of 28.6 percent of its base density as affordable units, with 21.4 percent of the units affordable at the very low income level, thereby entitling the project to receive density bonuses and qualifying for incentives, concessions and waivers pursuant to Los Altos Municipal Code Section 14.28.040 and Government Code Section 65915, *et seq.*; and

**WHEREAS**, the Applicant is seeking incentives under Government Code Section 65915(e) and Los Altos Municipal Code Section 14.28.040(F) to allow: a) a building with a primary height of 58 feet and a height of 35 feet for the rear portion, where the Code allows for 45 feet and 30 feet, respectively; and b) a rear yard setback of 60 feet for the five-story portion of the building, where the Code requires a rear yard setback of 100 feet; and

**WHEREAS**, the Applicant is seeking further waivers under Government Code Section 65915(e) and Los Altos Municipal Code Section 14.28.040(H) to allow: a) the elevator tower to be 17.9 feet above the roof, where the Code allows such structures to be 12 feet above the roof; and b) enclosed roof top structures at 4.6 percent of the roof area, where the Code limits such structures to four percent of the roof area; and

**WHEREAS**, the Applicant is seeking a parking requirement alteration under Government Code Section 65915(e) and Los Altos Municipal Code Section 14.28.040(G) to allow for a reduction in the minimum onsite parking requirement; and

**WHEREAS**, the Applicant is seeking a 75.25 percent density bonus and the above-described incentives and waivers to allow development of the Project pursuant to Government Code 65915 and Los Altos Municipal Code Section 14.28.040(E)(7), which allows the City to grant a density bonus

greater than the 35 percent provided as of right for projects providing more than 11 percent of its units as affordable at the very-low income level; and

**WHEREAS**, said Project is exempt from environmental review as in-fill development in accordance with Section 15332 of the California Environmental Quality Act of 1970 as amended (“CEQA”); and

**WHEREAS**, said Project has been processed in accordance with the applicable provisions of the California Government Code and the Los Altos Municipal Code; and

**WHEREAS**, on May 23, 2018, the Complete Streets Commission held a public meeting on the Project and at the conclusion of the meeting voted to recommend approval to the Planning Commission and City Council; and

**WHEREAS**, on August 14, 2018 the Applicant installed story poles on the site per the modified story pole plan that was approved by the City Council on May 8, 2018; and

**WHEREAS**, on September 4, 2018 the City gave public notice of the Planning Commission’s public hearing on the proposed Project by advertisement in a newspaper of general circulation and to all property owners within a 500-foot radius; and

**WHEREAS**, on September 20, 2018, the Planning Commission conducted a duly-noticed public hearing at which members of the public were afforded an opportunity to comment upon the Project, and at the conclusion of the hearing, the Planning Commission recommended that the City Council approve the Project; and

**WHEREAS**, on November 13, 2018, the City Council held a duly noticed public meeting as prescribed by law and considered public testimony and evidence and recommendations presented by staff related to the Project; and

**WHEREAS**, all the requirements of the Public Resources Code, the State CEQA Guidelines, and the regulations and policies of the City of Los Altos have been satisfied or complied with by the City in connection with the Project; and

**WHEREAS**, the findings and conclusions made by the City Council in this Resolution are based upon the oral and written evidence presented as well as the entirety of the administrative record for the proposed Project, which is incorporated herein by this reference. The findings are not based solely on the information provided in this Resolution; and

**WHEREAS**, all other legal prerequisites to the adoption of this Resolution have occurred.

**NOW THEREFORE, BE IT RESOLVED**, that the City Council of the City of Los Altos hereby approves the Project subject to the findings and the conditions of approval attached hereto as “Exhibit A” and “Exhibit B,” and incorporated by this reference.

**I HEREBY CERTIFY** that the foregoing is a true and correct copy of a Resolution passed and adopted by the City Council of the City of Los Altos at a meeting thereof on the 13<sup>th</sup> day of November 2018 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

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Jean Mordo, MAYOR

Attest:

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Jon Maginot, CMC, CITY CLERK

## EXHIBIT A

### FINDINGS

1. ENVIRONMENTAL REVIEW FINDINGS. With regard to environmental review, in accordance with Section 15332 of the California Environmental Quality Act Guidelines, based on the whole record before it, including, without limitation, the analysis and conclusions set forth in the staff reports, testimony provided at the proposed Project's public hearings, and the supporting technical studies, which include: 1) a Traffic Analysis by Hexagon Transportation Consultants (May 2018); 2) an Air Quality and Greenhouse Gas Emissions Assessment (March 2018); 3) a Noise Study by Wilson Ihrig (March 2018); and 4) an Arborist Report by Kielty Arborist Services (April 2018), the City Council finds and determines that the following Categorical Exemption findings can be made:
  - a. The Project is consistent with the applicable General Plan designation and all applicable General Plan policies as well as with the applicable zoning designation (Commercial Thoroughfare) and regulations, including density bonus, incentives and waivers for the production of affordable housing;
  - b. The Project occurs within City limits on a site of no more than five acres that is substantially surrounded by urban uses and there is no record that the site has value as habitat for endangered, rare or threatened species;
  - c. Approval of the Project will not result in any significant effects relating to traffic, noise, air quality, or water quality and the completed technical studies and staff analysis contained in the agenda report support this conclusion; and
  - d. The Project has been reviewed and it is found that the site can be adequately served by all required utilities and public services.
2. DESIGN REVIEW FINDINGS. With regard to Design Review Application 18-D-01, the City Council finds, in accordance with Section 14.76.060 of the Los Altos Municipal Code, as follows:
  - a. The Project meets the goals, policies and objectives of the General Plan with its level of intensity and residential density within the El Camino Real corridor, and all Zoning Code site standards and design criteria applicable for a project in the CT District;
  - b. The Project has architectural integrity and has an appropriate relationship with other structures in the immediate area in terms of height, bulk and design because the project utilizes high quality materials that support its architectural style and is appropriately articulated and scaled to relate to the larger buildings on the El Camino Real corridor;
  - c. Building mass is articulated to relate to the human scale, both horizontally and vertically as evidenced in the design of the projecting overhangs, bay windows and balconies, the building elevations have variation and depth and avoid large blank wall surfaces, and the project has incorporated elements that signal habitation, such as identifiable entrances, overhangs, bay windows and balconies;

- d. The Project's exterior materials and finishes convey high quality, integrity, permanence and durability, and materials are used effectively to define building elements. Materials, finishes, and colors have been used in a manner that serves to reduce the perceived appearance of height, bulk and mass, and are harmonious with other structures in the immediate area.
  - e. Landscaping such as the large specimen coral bark maple trees, Brisbane box street trees, Saratoga laurel evergreen screening trees, hedges and groundcover is generous and inviting, and landscape and hardscape features such as the custom paver walkway, board formed concrete planters and wood privacy fences are designed to complement the building and parking areas and to be integrated with the building architecture and the surrounding streetscape. Landscaping includes substantial street tree canopy including four new street trees in the public right-of-way, four new specimen coral bark maple trees in the front yard space and 11 new trees along the site perimeter;
  - f. Signage, which is limited to the building address number and other required directional signage, will be designed to complement the building architecture in terms of style, materials, colors and proportions;
  - g. Mechanical equipment is screened from public view by the building parapet and is designed to be consistent with the building architecture in form, material and detailing; and
  - h. Service, trash and utility areas are screened from public view by their locations in the building garage and behind fencing in the side yards, and consistent with the building architecture in materials and detailing.
3. USE PERMIT FINDINGS. With regard to Use Permit 18-UP-01, the City Council finds, in accordance with Section 14.80.060 of the Municipal Code, as follows:
- a. The proposed location of the multiple-family residential use is desirable and essential to the public comfort, convenience, prosperity, and welfare in that there are a limited number of sites that can accommodate new housing, the CT District has anticipated and planned for new housing along the El Camino Real corridor and the project provides housing at a variety of affordability levels;
  - b. That the proposed location of the multiple-family residential use is in accordance with the objectives of the Zoning Code since the project provides for community growth along sound lines, it is harmonious and convenient in relation to the surrounding land uses, it does not create any significant traffic impacts, it will help the City meet its affordable housing goals, it will protect and enhance property values and it will enhance the City's distinctive character with a high-quality building design in a commercial thoroughfare context;
  - c. That the proposed location of the multiple-family residential use, under the circumstances of the particular case and as conditioned, will not be detrimental to the health, safety, comfort, convenience, prosperity, or welfare of persons residing or working in the vicinity or injurious to property or improvements in the vicinity; and
  - d. That the proposed multiple-family residential use complies with the regulations prescribed for the CT District and the general provisions contained in Chapter 14.02.



4. SUBDIVISION FINDINGS. With regard to Subdivision 18-SD-01, the City Council finds, in accordance with Section 66474 of the Subdivision Map Act of the State of California, as follows:
  - a. The proposed condominium subdivision is consistent with the General Plan;
  - b. The Project site is physically suitable for this type and density of development in that the project meets all applicable Zoning requirements except where a density bonus and development incentives have been granted;
  - c. The design of the condominium subdivision and the proposed improvements are not likely to cause substantial environmental damage, or substantially injure fish or wildlife; and no evidence of such has been presented;
  - d. The design of the condominium subdivision is not likely to cause any serious public health problems because conditions have been added to address noise, air quality and life safety concerns; and
  - e. The design of the condominium subdivision will not conflict with any public access easements as none have been found or identified on this site.
  
5. AFFORDABLE HOUSING AND DENSITY BONUS FINDINGS. With regard to the offered below market rate units and requested density bonus, incentives, waivers and parking requirement alteration, the City Council finds, in accordance with Los Altos Municipal Code Section 14.28.040, as follows:
  - a. The applicant is offering two moderate-income and six very-low-income affordable housing units for sale, 28.6 percent of the Project's base density, which qualifies the project for a density bonus, incentives, waivers and a parking requirement alteration;
  - b. Per Table DB 3 in Section 14.28.040(C)(1)(b), a project that offers 11 percent or more of its total units (base density) as very-low income restricted affordable units shall be granted a density bonus of 35 percent, and per Table DB 4 in Section 14.28.040(C)(1)(b), a project that offers 15 percent or more of its total units (base density) as Very Low income restricted affordable units shall be granted three (3) incentives. Since the project is providing 21.4 percent of its total units as affordable at the very-low income level, the City shall grant a density bonus of at least 35 percent and three (3) incentives;
  - c. For its incentives, the project is requesting the City allow: a) a building with a primary height of 58 feet and a height of 35 feet for the rear portion, where the Code allows for 45 feet and 30 feet, respectively; and b) a rear yard setback of 60 feet for the five-story portion of the building, where the Code requires a rear yard setback of 100 feet. The height incentive is considered an "off-menu" incentive and the rear yard setback incentive is considered two (2) "on-menu" incentives (20 percent decrease in a setback);
  - d. Per Section 14.28.040(G)(2)(a), the City shall allow a minimum parking requirement, inclusive of handicapped and guest parking, of one (1) onsite parking space for each one-bedroom unit and two (2) onsite parking spaces for each two- or three-bedroom unit if requested by the

applicant. Since the project is providing 108 onsite parking spaces, where a minimum of 91 onsite parking spaces is required, it is exceeding the minimum permitted by the Code;

- e. Per Section 14.28.040(H)(1), a project can request a waiver or reduction of development standards that have the effect of physically precluding the construction of a development in addition to the density bonus and incentives permitted by the Code. Consistent with these requirements, the Applicant is seeking waivers to allow: a) the elevator tower to be 17.9 feet above the roof, where the Code allows such structures to be 12 feet above the roof; and b) enclosed roof top structures at 4.6 percent of the roof area, where the Code limits such structures to four percent of the roof area. The basis to grant the waivers is supported by the fact that they are required in order to provide the necessary amenities and accessibility for a building of this size and density, they will not have a specific, adverse impact upon health, safety, or the physical environment, they will not have an adverse impact on any listed historic resources and will not be contrary to state or federal law; and
- f. Per Section 14.28.040(E)(7), the City is permitted to grant a density bonus greater than the 35 percent. Per consultation with City staff, the City Council and Planning Commission, the Applicant is requesting a 75.25 percent density bonus, which will allow for the development of 50 dwelling units in the project. Granting of this density bonus is supported by the fact that the project is offering of 28.6 percent of its total units as affordable at the moderate and very-low income levels. The granting of the density bonus is further supported by the fact that the project is exceeding the minimum thresholds prescribed by the Zoning Code with regard to onsite parking, side yard setbacks, open space (both private and common), and bicycle parking. Information to support the density bonus is provided in the Density Bonus Report, which is included with the Project's staff report.

**EXHIBIT B**  
**CONDITIONS**

**GENERAL**

**1. Approved Plans**

The project approval is based upon the plans received on October 16, 2018, except as modified by these conditions.

**2. Affordable Housing**

The applicant shall offer the City eight (8) below market rate units as follows: a) one (1) three-bedroom unit at the moderate-income level; b) one (1) two-bedroom unit at the moderate-income level; and c) six (6) one-bedroom units at the low-income level.

**3. Upper Story Lighting**

Any exterior lighting above the ground floor on the sides and rear of the building and on the rooftop deck shall be shrouded and/or directed down to minimize glare.

**4. Encroachment Permit**

An encroachment permit and/or an excavation permit shall be obtained prior to any work done within the public right-of-way and it shall be in accordance with plans to be approved by the City Engineer. *Note: Any work within El Camino Real will require applicant to obtain an encroachment permit with Caltrans prior to commencement of work.*

**5. Public Utilities**

The applicant shall contact electric, gas, communication and water utility companies regarding the installation of new utility services to the site.

**6. Americans with Disabilities Act**

All improvements shall comply with Americans with Disabilities Act (ADA).

**7. Stormwater Management Plan**

The applicant shall submit a complete Stormwater Management Plan (SWMP) and a hydrology calculation showing that 100% of the site is being treated; is in compliance with the Municipal Regional Stormwater NPDES Permit (MRP). Applicant shall provide a hydrology and hydraulic study, and an infeasible/feasible comparison analysis to the City for review and approval for the purpose to verify that MRP requirements are met.

**8. Sewer Lateral**

Any proposed sewer lateral connection shall be approved by the City Engineer.

**9. Transportation Permit**

A Transportation Permit, per the requirements specified in California Vehicle Code Division 15, is required before any large equipment, materials or soil is transported or hauled to or from the construction site.

**10. Indemnity and Hold Harmless**

The applicant/owner agrees to indemnify, defend, protect, and hold the City harmless from all costs and expenses, including attorney's fees, incurred by the City or held to be the liability of the City in connection with the City's defense of its actions in any proceedings brought in any State or Federal Court, challenging any of the City's action with respect to the applicant's project.

**PRIOR TO SUBMITTAL OF BUILDING PERMIT**

**11. Green Building Standards**

The applicant shall provide verification that the project will comply with the City's Green Building Standards (Section 12.26 of the Municipal Code) from a qualified green building professional.

**12. Property Address**

The applicant shall provide an address signage plan as required by the Building Official.

**13. Water Efficient Landscape Plan**

Provide a landscape documentation package prepared by a licensed landscape professional showing how the project complies with the City's Water Efficient Landscape Regulations.

**14. Air Quality Mitigation**

The applicant shall implement and incorporate the air quality mitigations into the plans as required by the report prepared by Illingsworth & Rodin, Inc., dated March 6, 2018.

**15. Noise Mitigation**

The applicant shall implement and incorporate the noise mitigation measures into the plans as required by the report by Wilson Ihrig, dated March 6, 2018.

**16. Rooftop Deck**

Provide design details for the rooftop deck sufficient enough to verify that the space can operate in compliance with the performance standards prescribed by Municipal Code Section 14.50.160.

**PRIOR TO FINAL MAP RECORDATION**

**17. Covenants, Conditions and Restrictions**

The applicant shall include the following provisions in the Covenants, Conditions and Restrictions (CC&Rs):

- a. Storage on private patios and decks shall be restricted; and rules for other objects stored on private patios and decks shall be established with the goal of minimizing visual impacts.
- b. Long-term maintenance and upkeep of the landscaping and street trees, as approved by the City, shall be a duty and responsibility of the property owners. Specifically, the landscape buffer, including both trees and landscaping, along the rear property line shall be permanently maintained as required by the CT District per Municipal Code Section 14.50.110(C).
- c. The rooftop deck shall be permanently maintained in accordance with the performance standards for Rooftop Uses in the CT District as currently prescribed by Municipal Code Section 14.50.160.
- d. Both parking spaces in a tandem space shall be owned by the same unit and cannot be owned or used by separate units.

**18. Public Utility Dedication**

The applicant shall dedicate public utility easements as required by the utility companies to serve the site.

**19. Payment of Fees**

The applicant shall pay all applicable fees, including but not limited to sanitary sewer impact fees, parkland dedication in lieu fees, traffic impact fees and map check fee plus deposit as required by the City of Los Altos Municipal Code.

**PRIOR TO ISSUANCE OF BUILDING PERMIT**

**20. Final Map Recordation**

The applicant shall record the final map. Plats and legal descriptions of the final map shall be submitted for review by the City Land Surveyor. Applicant shall provide a sufficient fee retainer to cover the cost of the map review by the City.

**21. Sidewalk Lights**

The applicant shall maintain the existing light fixture and/or install new light fixture(s) in the El Camino Real sidewalk as directed by the City Engineer.

**22. Performance Bond**

The applicant shall submit a cost estimate for the improvements in the public right-of-way and shall submit a 100-percent performance bond and 50-percent labor and material bond (to be held 6 months until acceptance of improvements) for the public right-of-way work.

**23. Maintenance Bond**

A one-year, ten-percent maintenance bond shall be submitted upon acceptance of improvements in the public right-of-way.

**24. Storm Water Filtration Systems**

The applicant shall insure the design of all storm water filtration systems and devices are without standing water to avoid mosquito/insect infestation.

**25. Grading and Drainage Plan**

The applicant shall submit detailed plans for on-site and off-site grading and drainage plans that include drain swales, drain inlets, rough pad elevations, building envelopes, and grading elevations for review and approval by the City Engineer.

**26. Sewage Capacity Study**

The applicant shall show sewer connection to the City sewer main and submit calculations showing that the City's existing 27-inch sewer main will not exceed two-thirds full due to the additional sewage capacity from proposed project. For any segment that is calculated to exceed two-thirds full for average daily flow or for any segment that the flow is surcharged in the main due to peak flow, the applicant shall upgrade the sewer line or pay a fair share contribution for the sewer upgrade to be approved by the City Engineer.

**27. Construction Management Plan**

The applicant shall submit a construction management plan for review and approval by the Community Development Director and the City Engineer. The construction management plan shall address any construction activities affecting the public right-of-way, including but not limited to excavation, traffic control, truck routing, pedestrian protection, material storage, earth retention and construction vehicle parking. The plan shall provide specific details with regard to how construction vehicle parking will be managed to minimize impacts on nearby single-family neighborhoods. A Transportation Permit, per the requirements in California Vehicle Code Division 15, is required before any large equipment, materials or soil is transported or hauled to or from the site.

**28. Sewer Lateral Abandonment**

The applicant shall abandon additional sewer laterals and cap at the main if they are not being used. A property line sewer cleanout shall be installed within 5-feet of the property line within private property.

**29. Solid Waste Ordinance Compliance**

The applicant shall be in compliance with the City's adopted Solid Waste Collection, Remove, Disposal, Processing & Recycling Ordinance (LAMC Chapter 6.12) which includes a mandatory requirement that all commercial and multi-family dwellings provide for recycling and organics collection programs.

**30. Solid Waste and Recyclables Disposal Plan**

The applicant shall contact Mission Trail Waste Systems and submit a solid waste and recyclables disposal plan indicating the type, size and number of containers proposed, and the frequency of pick-up service subject to the approval of the Engineering Division. The applicant shall also submit evidence that Mission Trail Waste Systems has reviewed and approved the size and location of the proposed trash enclosure. The enclosure shall be designed to prevent rainwater from mixing with the enclosure's contents and shall be drained into the City's sanitary sewer system. The enclosure's pad shall be designed to not drain outward, and the grade surrounding the enclosure designed to not drain into the enclosure. In addition, applicant shall show on plans the proposed location of how the solid waste will be collected by the refusal company. Include the relevant garage clearance dimension and/or staging location with appropriate dimensioning on to plans.

**31. Tree Protection**

The applicant shall implement and incorporate the tree protection measures into the plans and on-site as required by staff and in accordance with the report by Kielty Arborist Services dated April 30, 2018.

**32. Affordable Housing Agreement**

The applicant shall execute and record an Affordable Housing Agreement, in a form approved and signed by the Community Development Director and the City Attorney, that offers eight below market rate units, for a period of at least 55-years, as defined in Condition No. 2. All of the below market rate units shall be constructed concurrently with the market rate units, shall be dispersed throughout the project as shown on the approved plans, and shall not be significantly distinguishable design, construction or materials.

## **PRIOR TO FINAL OCCUPANCY**

### **33. Green Building Verification**

The applicant shall submit verification that the structure was built in compliance with the California Green Building Standards pursuant to Section 12.26 of the Municipal Code.

### **34. Signage and Lighting Installation**

The applicant shall install all required signage and on-site lighting per the approved plan. Such signage shall include the disposition of guest parking, the turn-around/loading space in the front yard and accessible parking spaces.

### **35. Acoustical Report**

The applicant shall submit a report from an acoustical engineer ensuring that the rooftop mechanical equipment meets the City's noise regulations.

### **36. Landscape Installation and Verification**

Provide a landscape Certificate of Completion, signed by the project's landscape professional and property owner, verifying that the trees, landscaping and irrigation were installed per the approved landscape documentation package.

### **37. Condominium Map**

The applicant shall record the condominium map as required by the City Engineer.

### **38. Driveway Visibility**

The applicant shall work with the Engineering Division to indicate a sufficient no parking area along El Camino Real to the north of the driveway to provide adequate sight visibility.

### **39. Sidewalk in Public Right-of-Way**

The applicant shall install new sidewalk, vertical curb and gutter, and driveway approaches from property line to property line along the frontage of El Camino Real as required by the City Engineer.

### **40. Public Infrastructure Repairs**

The applicant shall repair any damaged right-of-way infrastructures and otherwise displaced curb, gutter and/or sidewalks and City's storm drain inlet shall be removed and replaced as directed by the City Engineer or his designee. The applicant is responsible to resurface (grind and overlay) half of the street along the frontage of El Camino Real if determined to be damaged during construction, as directed by the City Engineer or his designee. *Note: Any work within the El Camino Real will require applicant to obtain encroachment permit with Caltrans prior to commencement of work.*

### **41. SWMP Certification**

The applicant shall have a final inspection and certification done and submitted by the Engineer who designed the SWMP to ensure that the treatments were installed per design. The applicant shall submit a maintenance agreement to City for review and approval for the stormwater treatment methods installed in accordance with the SWMP. Once approved, City shall record the agreement.



October 17, 2018

City Council  
Attn: Jean Mordo, Mayor  
Los Altos City Hall  
1 North San Antonio Road  
Los Altos, CA 94022

**Altos One Planning Commission Revisions and Response**

BMR Discussions

Planning Comments

- There were numerous comments regarding the nature of the BMR units within the project and the large Density Bonus request. In the end it was noted that the Density Bonus was commensurate with the additional features that were provided with the building and on the site. Those features included; increased setbacks at 4880 project, increased Open Space above the requirements, 2 parking spaces per unit, increased bicycle storage above standards, interior skylight feature, and overall building design.

Design Response

- The BMR mix has been adjusted. We have replaced Unit 502 with Unit 311, which are both 1 Bedroom / 1 Bathroom units. Unit 311 is +/- 120 square feet bigger than Unit 502.

Window trims

Planning Comments

- The intermittent window trim elements seemed random and they would prefer all the windows were treated in the same manner
- The stucco over foam trim was not desirable

Design Response

- All window trims were removed at stucco wall conditions
- All windows in stucco wall planes were recessed by 2" providing a shadow line

Form board concrete walls and planters

Planning Comment

- There was concern that the craftsmanship on the form board concrete would leave the walls looking less desirable than anticipated.
- There was a concern that the grey concrete would not work well with the other colors

Design Response

- The walls and planters were revised to be clad with Equitone in a mix of slight color variations in a more tan / brown color family to provide a similar look to the concrete wall with a more consistent appearance. A sample of this material will be added to the Color and Materials board.

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## Wall finish materials

### Planning Comment

- There was a comment that there was still too much stucco on the building and perhaps more material variation was needed. A natural stone or "some other tile" materials was suggested.

### Design Response

- We have included an exterior cladding material (Equitone) to accent some of the feature elements of the building. We felt that this material accomplished the goal of "less stucco" without adding a material that deviated too far from the elevation style.
- In addition we have previously added expansion joints to the stucco areas which serve as an accent element and break up the stucco walls. The stucco will be a high quality sand finish per the submitted sample.

## Entry Element

### Planning Comment

- A concern was raised about the large storefront area looking like "cheap" aluminum storefront

### Design Response

- This will be a nice entry detail with a high quality storefront material. A sample of the window materials is provided.
- In addition we added an entry feature that broke up the larger expanse of storefront and created another level of detail that further highlighted the building entry. This feature is a built out form clad in the Equitone material to tie it into the other feature elements. Revised elevations as well as a perspective of the Entry have been provided.

## Feature "eyebrow" Elements

### Planning Comment

- There was a comment on the graceful proportions of the building features, but it was noted that the upper most element felt a little heavy and less graceful.

### Design Response

- The elements in question are the areas where we have placed the new Equitone material to highlight them further
- We have thinned down that upper element and added transom windows in the space that was created.

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## **Project Vision**

The vision of Altos One is to offer a turn-key "city-living lifestyle" in the suburban market. It is a 50-unit residential condominium development with integrated services and community living spaces that embody the type of transit-supportive development envisioned through Grand Boulevard Initiative that City of Los Altos is part of. This site is a perfect example of a new infill development. Strategically located close to the largest mixed-use retail and consumer services center in the area, Altos One is expected to bring urban style and sophistication to the El Camino corridor of Los Altos.

The development has been designed to accommodate the unique mix of buyers in the area, including downsizing seniors, millennials, and multi-generational families. We chose specific features to meet the needs of each of these groups, such as offices in select units (for remote workers) and single-floor configurations (for seniors).

The suburban world is changing rapidly to bring elements of urban living. To accommodate this, we've chosen a location close to services, installed bike lockers, and built-in many features to make this a self-contained community.

Highlights of the project include:

- Open-living floor plans generally larger than other nearby developments
- All units single-story to maximize living space while appealing to all generations
- 550 square foot fitness facility with private spa-like patio
- 900 square foot Gathering Room with Kitchen and AV services overlooking El Camino
- 5500 square foot rooftop deck with grilling stations, bocce court, dining tables, and outdoor theater
- Storage units on each floor and bike lockers, in the underground parking designated for each unit
- Private community backyard nestled among towering redwoods
- "Solar-ready" wiring and mounts for solar panels on the rooftop deck
- Walking distance to Cal Train and directly on a major bus route

## **Project Rationale and Benefits**

The Altos One development brings greatly needed market rate and affordable housing to Los Altos in the only area where high-density housing is possible, along El Camino Real. Located directly behind Altos One is an existing apartment complex, Los Altos Court. A recently approved 5-story, 21-unit residential condominium development is located next door at 4880 El Camino Real. These affirm the applicability of constructing housing in this location.

Within a quarter mile there are two supermarkets (Whole Foods and Safeway) along with more than 20 restaurants, dozens of consumer services or retail outlets, a hotel, and theater (coming soon). There is little need for commercial services in this area but a substantial demand for residential units.

Altos One benefits Los Altos in several ways:

- Providing approximately 10% of the housing units required in the current housing element
- Anticipated provision of over \$1,000,000 in property tax revenue (based on sales projections)
- Addition of 8 "below market rate" housing units
- Continuing legacy of luxury and sophistication in residential construction
- Reinforces the "urban living" trend along El Camino Real

## **Building Design**

The building was designed with a high-end modern aesthetic and features a variety of exterior finishes including; a smooth stucco finish, siding accents and lower level railings, elegant glass railings at upper levels for contrast and views, architectural metal panels for feature elements, and board formed concrete at walls and planters. The building façade is highly articulated with multiple plane changes. These mostly vertical elements are broken up with a variety of horizontal balcony elements and canopies which accentuate the building forms. The building layout features a grand two story lobby entrance with a feature steel and glass stairway and glass railings at the second level.

The L-shaped lot and building footprint dictated the location of the elevator, stairway, and other building services at the elbow of the building mass. In order to make this space a bright and pleasant place we have designed a light-

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ATTACHMENT 2

well that runs from the roof to the first floor. This feature floods the intersection of the main hallways with light and provides a dramatic focal point at the exit of the elevator on each floor.

This building was designed to meet the needs of many different buyer profiles. As such, it includes a Fitness Room, a Gathering / Family Play Room, and a rear yard area to provide for safe outdoor play at the ground level for children. The varied setback at the rear of the building also provides for a nice stepping of the building mass that helps to break up the larger walls at the rear elevation. A more adult outdoor area is provided on the roof deck above the taller portion of the building.

### **Vehicular Access**

The project proposes combining 2 existing driveways into a single vehicular access point near the center of the combined parcels. The driveway / ramp will access a two level sub-grade parking garage which was reconfigured to two levels so that mechanical parking lifts would not be required. The underground Parking Levels consists of 50,000 square feet and include 108 car parking spaces, 50 bicycle lockers, the trash enclosure, mechanical room, and vertical circulation. The parking spaces are provided in both Standard and Tandem configurations. The resident parking includes 44 tandem parking spaces, and 56 standard spaces including required ADA compatible spaces. There are also 8 guest parking spaces including required ADA spaces. The guest spaces are all located to the right side of the ramp while the resident spaces are all located to the left side of the ramp.

### **Pedestrian Access**

The project would set its building farther back from the street than the existing building at 4846 El Camino Real. The existing building comes right to the back of the sidewalk. The increased setback would create a more comfortable environment for pedestrians. The two buildings at 4846 and 4856 El Camino Real have two driveways with a combined width of about 50 feet. The project would provide one driveway with a width of about 22 feet. Thus, the exposure of pedestrians to potential conflicts with vehicles would be significantly reduced. The project includes a front door on El Camino Real for convenient access to the sidewalk.

### **Bicycle Access**

The project proposes to exceed the Santa Clara Valley Transportation Agency (VTA) bicycle parking guidelines. The guidelines specify that secure long-term bicycle parking should be provided at a ratio of one space per three units, which would require 17 bicycle parking spaces. The project proposes a secure bicycle storage room with 10 individual lockers as well as 16 bike racks. In addition there are 19 more individual bicycle lockers situated under the stairway within the sub-grade garage. This provides a total of 45 secure bicycle storage spaces. The VTA guidelines also specify that 4 short-term bicycle spaces should be provided. The project proposes four short-term spaces at a bicycle rack near the front door.

### **Building Storage**

The building is designed to accommodate the storage needs of the residents to the greatest extent possible. Each level of the building has a central storage area that contains individual locking storage spaces. The storage spaces are fully enclosed and have 3' access doors. In addition to these central storage spaces, storage areas were a primary focus of the unit designs especially for the larger units which may be occupied by families. Wherever possible large storage closets were included within the design of the units.

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**DENSITY BONUS**

Affordable Units: 8 units

- 2 moderate / 6 very low: (6 very low / 28 = 21.4 % = 75.25 % Density Bonus)
- 28 units x 75.25 % = 50 units
- Proposed Building Configuration:
  - (9) 1 bedroom units 780 sf - 900 sf
  - (30) 2 bedroom units 1080 sf - 1550 sf
  - (11) 3 bedroom units 1570 sf - 2300 sf
- Proposed BMR Units:
  - (6) 1 bedroom /1 bathroom very low income
  - (1) 2 bedroom /2 bathroom moderate income
  - (1) 3 bedroom /2 bathroom moderate income

**DENSITY BONUS CONCESSIONS AND WAIVERS**

This project is providing 8 BMR units and is requesting a 75.25% Density Bonus. With 21.4% Very Low Units the project is entitled to three incentives or concession.

Incentives (15% very low = 3 incentives)

	Standard	Requested
1. Rear yard setback decrease by 20% (4 <sup>th</sup> and 5 <sup>th</sup> floors only)	100'	60'
2. Rear yard setback decrease by additional 20 % (4 <sup>th</sup> and 5 <sup>th</sup> floors only)	100'	60'
3. Height increase		
Front portion of building including increased setback area	45'	58'
Rear portion of building outside increased setback area	30'	35'

Waivers

1. Elevator Tower Height Increase	12'	17'-10.75"
2. 118 SF Roof Structure increase*	(4%) 824 SF	(4.6%) 942 SF

\*Includes elevators, stairs and trash enclosure

Parking Required per 65915(p) and LAMC 14.28.040 G2a

1 spaces per 1 Bed Unit: 9 Units x 1 spaces	9 Spaces
2 spaces per 2 Bed+ Unit: 41 Units x 2 spaces	82 Spaces
Visitor / ADA: included	0 Spaces
<b>Total:</b>	<b>91 Spaces</b>

Parking Provided

Resident	100 Spaces
Visitor / ADA:	8 Spaces
<b>Total:</b>	<b>108 Spaces</b>

**ELEVATOR TOWER INCREASE**

An elevator is required to access the Occupied Roof deck per the CBC ADA access requirements. Due to the required height of the elevator tower we have placed it towards the middle of the building. This location allows the taller tower to be hidden from street level views by the edges of the building. The requested elevator tower increase is based on the minimum height required to install the two elevators with the 8 levels of stops. There is 14'-7" of clearance required from the floor level of the highest stop to the underside of the hoist beam. The hoist beam for the elevator sits above that required clearance and below the roof of the elevator shaft. The roof structure itself is +/- 18". Elevator sections and manufacturer's cut sheets have been provide in the package on sheets A14 and A15 for reference.

Principal Architects:

Ralph Strauss C19511 • Jeff Potts C26734 • Keeth Lichtenberger C17338 • Lance Crannell C31189 • Jennifer Mastro C32960

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**MINUTES OF A REGULAR MEETING OF THE PLANNING COMMISSION OF THE CITY OF LOS ALTOS, HELD ON THURSDAY, SEPTEMBER 20, 2018 BEGINNING AT 7:00 P.M. AT LOS ALTOS CITY HALL, ONE NORTH SAN ANTONIO ROAD, LOS ALTOS, CALIFORNIA**

**ESTABLISH QUORUM**

PRESENT: Chair Bressack, Vice Chair Samek, Commissioners Bodner, Enander, Lee, McTighe and Meadows

STAFF: Planning Services Manager Dahl and Senior Planner Golden

**PUBLIC COMMENT ON ITEMS NOT ON THE AGENDA**

None.

**ITEMS FOR CONSIDERATION/ACTION**

**CONSENT CALENDAR**

**1. Planning Commission Minutes**

Approve the minutes of the September 6, 2018 Regular Meeting.

Action: Upon motion by Commissioner Enander, seconded by Commissioner McTighe, the Commission unanimously approved the minutes from the September 6, 2018 Regular Meeting as amended.

The motion was approved (7-0) by the following vote:

AYES: Bodner, Bressack, Enander, Lee, McTighe, Meadows and Samek

NOES: None

ABSENT: None

**PUBLIC HEARING**

**2. 18-D-01, 18-UP-01 and 18-SD-01 – Mircea Voskerician – 4846 – 4856 El Camino Real**

Design Review, Use Permit, and Subdivision applications for a new five-story, multiple-family, condominium building with 50 units and two levels of underground parking. The application includes a density bonus and development incentives to allow for increased building height and a reduced rear yard setback for the upper stories. *Project Planner: Dahl*

Planning Services Manager Dahl presented the staff report, recommending to the City Council approval of design review, use permit and subdivision applications 18-D-01, 18-UP-01 and 18-SD-01 per the recommended findings and conditions.

Project applicant Mircea Voskerician introduced the project and project architect Jeff Potts presented the project.

Public Comment

Abby Ahrens, resident and owner of Enchante Hotel, spoke in support of the project.

### Commission Discussion

Commissioner Enander stated for the record that she does not have a conflict of interest since she has not prejudged the project and will judge fairly and impartially.

Commissioner Enander noted that the 3D renderings and additional modeling information was useful; the Construction Management Plan should manage construction parking to minimize impacts to the nearby neighborhood; and that the excavation work should not impact the redwood trees.

Commissioner Meadows expressed support for the project; noted that the information provided was very thorough; the design has improved with good use of materials; good outreach to the neighbors; a 75 percent density bonus is high, but it does provide additional BMRs as well as numerous other amenities exceeding code requirements.

Vice-Chair Samek expressed support for the project, but noted design concerns with the exterior materials; improve window treatments and window rhythm on El Camino Real frontage; improve front entry appearance; consider alternative to concrete wall along the front.

Commissioner Bodner noted that the overall design has improved, but still has some concerns with mix of exterior materials; supported design of the rooftop deck; expressed concerned about the 75 percent density bonus, noting that the project should increase size and/or number of BMR units.

Commissioner McTighe expressed support for the design; but noted that the project still had a lot of stucco; should look into use of natural stone; make the bike racks more accessible; provide an additional two-bedroom/three-bedroom to the BMR mix.

Commissioner Lee expressed support for the overall project; but noted that significant exceptions were being requested; exterior materials could be improved; good use of color and interior skylight a nice design element.

Chair Bressack expressed support for the overall project, noted the high quality and thorough nature of the project plans; that the size of the one-bedroom BMRs should be increased; a lot of stucco used; nice color palette; consider addition of some natural stone; good amount of parking with two spaces per unit.

Commissioner Enander noted that 4880 El Camino Real set a precedent with a five-story building; concerned about setting a further precedent, but understands the need for housing; should clarify the reasons why this project is allowed to go beyond 35 density bonus.

Action: Upon motion by Commissioner Meadows, seconded by Vice-Chair Samek, the Commission recommended approval of use permit and subdivision applications 18-UP-01 and 18-SD-01 to the City Council.

The motion was approved (6-1) by the following vote:

AYES: Bressack, Enander, Lee, McTighe, Meadows and Samek

NOES: Bodner (concerned about too great of a density bonus being given and the overall design)

ABSENT: None

Action: Upon motion by Commissioner Meadows, seconded by Commissioner McTighe, the Commission recommended approval of commercial design application 18-D-01 to the City Council, per the listed findings and conditions, with the following additional recommendations:

- The exterior design should be updated to address the Planning Commission's concerns and come back to the Commission for final approval prior to submittal of a building permit.

- Consider increasing the size and/or bedrooms in the BMR units and modifying income levels to best meet the City's needs of for-sale BMR units;
- Add a finding that notes additional project amenities, such as parking ratio, significant amount of open space, bike parking, and larger side yard setback, contributed to approval of the 75% density bonus; and
- The Construction Management Plan should outline how construction parking impacts on the nearby neighborhood will be minimized.

The motion was approved (6-1) by the following vote:

AYES: Bressack, Enander, Lee, McTighe, Meadows and Samek

NOES: Bodner (concerned about the density and overall design)

ABSENT: None

The Commission took a five-minute break at 9:15 PM before the start of agenda item #3.

## STUDY SESSION

### 3. **18-CA-03 – Paul Lovoi – Amendment to R3-4.5 Multiple-Family District**

A Planning Commission Study Session to consider potential amendments to the R3-4.5 Multiple-Family District (Zoning Code Chapter 14.16) to establish lot coverage, floor area ratio, setbacks, off-street parking, height of structures, daylight plane and other appropriate site standards. The R3-4.5 District includes all properties along Stevens Place and Marshall Court.

*Project Planner: Golden*

Senior Planner Golden presented the staff report, providing an overview and background to the R3-4.5 District.

Project applicant Paul Lovoi presented the request, noting that he wants clarity on the site standards for the district.

#### Public Comment

Resident Teri Wiss who lives adjacent to the R3-4.5 District, noted that any new standards should consider R1 adjacencies, should not increase the density, and that there should be adequate community outreach prior to adoption of new standards.

Resident Michelle Machado expressed concern about prescriptive easements and noted that nonconforming structures should be addressed.

Resident Conni Ahart noted that the units are old, small, and could be designed more efficiently by allowing changes to the footprint; need to establish standards to allow for improvements to the neighborhood.

Resident Nitin Panjwani expressed support for establishing site standards, supported ability to convert to a single-family use and would support allowing second stories.

Resident Ed North expressed concerns about potential privacy impacts if second story additions are allowed.

Resident Randall Mitchell expressed opposition to allowing second stories or increasing the density; concerned about the current lack of parking.

Resident Karen Chin expressed support for site standards that would allow for additions and remodels, but should be one-story only

Resident Eric Defriez noted that the density should not be increased, is concerned about two-stories being allowed, tenants and owners should be engaged, and that traffic is a concern along Homestead.

Resident Caroline Zimmer expressed concern about two-story additions and that there needs to be more outreach and education about the proposed zoning amendments.

#### Commission Discussion

The Commission expressed general support for establishing development standards for the R3-4.5 District,

Commissioner Bressack noted that the new standards should avoid creating non-conforming structures.

Commissioner Enander noted that the process should include additional neighborhood outreach.

Commissioner Meadows noted that the standards should consider limiting the district to one-story.

Commissioner McTighe noted that the density should not be increased.

The Commission was in general agreement with regards to the questions posed by staff as follows:

- Examine the topographical differences between the neighborhoods;
- Explore single story restrictions because of the flag lots;
- Maintain the density of the neighborhood;
- Explore second story privacy impacts; and
- The proposed development standards should create the least amount of non-conforming situations.

## **DISCUSSION**

### **4. Story-Poles**

Discuss the City's Story-Pole policy.

Commissioner Enander noted that modified story poles for 4856 El Camino Real are still good.

Commissioner McTighe noted that story poles on sites with tenants are a safety risk.

Chair Bressack noted that there are issues with safety, the use of the site, and the cost of erecting the story poles.

Commissioner Bodner noted that story poles should be installed for only 60 days, regardless of the review time of the project, to minimize long term visual impacts.

The Commission noted that the intent of the discussion was to prepare for its joint meeting with the City Council and further discuss the topic with them.

## **COMMISSIONERS' REPORTS AND COMMENTS**

Commissioner Meadows reported on the September 11, 2018 City Council meeting.



## **POTENTIAL FUTURE AGENDA ITEMS**

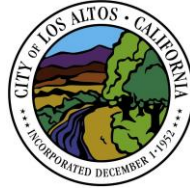
None.

## **ADJOURNMENT**

Chair Bressack adjourned the meeting at 10:36 P.M.

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Zachary Dahl, AICP  
Planning Services Manager



## PLANNING COMMISSION AGENDA REPORT

**Meeting Date:** September 20, 2018

**Subject:** Proposed Five-Story, 50-Unit Multiple-Family Building at 4856 El Camino Real

**Prepared by:** Zachary Dahl, Planning Services Manager

**Initiated by:** Applicant and Owner – Mircea Voskerician, LuxOne LLC

### **Attachments:**

- A. Draft Resolution
- B. Applicant Materials
  - Cover Letter
  - Density Bonus Report
  - Climate Action Plan Checklist
  - Story Pole Certification and Approved Story Pole Plan
- C. Planning Commission Study Session Minutes, April 19, 2018
- D. Complete Streets Commission Meeting Minutes, June 27, 2018
- E. Traffic Report
- F. Air Quality and Greenhouse Gas Emissions Assessment
- G. Noise Study
- H. Arborist Report
- I. Public Correspondence
- J. Project Plans

### **Recommendation:**

Recommend to the City Council approval of design review, use permit and subdivision applications 18-D-01, 18-UP-01 and 18-SD-01 per the findings and conditions contained in the resolution.

### **Environmental Review:**

The project is exempt from environmental review as in-fill development in accordance with Section 15332 of the California Environmental Quality Act of 1970 as amended.

### **Project Description:**

This is a development proposal that includes a Design Review, Use Permit and Subdivision application for a new five-story, multiple-family residential building with 50 condominium units, a rooftop common area and a two-level underground parking garage. The existing site includes a one-story commercial building currently occupied with office uses at 4846 El Camino Real and a two-story mixed-use building with personal service and office uses at 4856 El Camino Real. The proposal is offering eight affordable units – two moderate and six very-low – in exchange for a 75.25 percent density bonus and development incentives to allow for increased height and a reduced rear yard setback. The following tables summarizes the project's technical details:

**Subject:** Proposed Five-Story, 50-Unit Multiple-Family Building at 4856 El Camino Real

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**GENERAL PLAN DESIGNATION:** Thoroughfare Commercial  
**ZONING:** CT (Commercial Thoroughfare)  
**PARCEL SIZE:** 31,576 square feet (0.73 acres)  
**MATERIALS:** Sand finish stucco siding with architectural metal panel and shiplap wood accent siding, metal frame windows and doors, and glass balcony railings

	<b>Existing</b>	<b>Proposed</b>	<b>Required/Allowed</b>
<b>SETBACKS:</b>			
Front	6 to 14 feet	25 feet	25 feet
Rear	85 to 128 feet	40 feet/60 feet	40 feet/100 feet <sup>1</sup>
Right side	0 feet	7.5 feet (avg.)	7.5 feet (avg.)
Left side	0 feet	8.5 feet (avg.)	7.5 feet (avg.)
<b>HEIGHT:</b>			
Top of roof deck	14 to 30 feet	34.3 feet/58 feet	30 feet/45 feet <sup>2</sup>
Top of parapet wall	-	38 feet/63 feet	42 feet/57 feet
Stair towers	-	70 feet	57 feet
Elevator tower	-	75.9 feet	57 feet
<b>PARKING:</b>	42 spaces	108 spaces	91 spaces
<b>DENSITY:</b>	-	50 units (69 du/ac)	28 units (38 du/ac)
<b>OPEN SPACE:</b>			
Private	-	214 square feet/unit	50 square feet/unit
Public	-	8,855 square feet	2,400 square feet

The draft resolution contained in Attachment A includes the project's findings and conditions of approval. The project's Density Bonus Report and Climate Action Plan Checklist, along with a cover letter from the applicant, are included in Attachment B.

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<sup>1</sup> A setback of 40 feet is required for structures up to 30 feet in height and a setback of 100 feet is required for portions of the structure that are over 30 feet in height.

<sup>2</sup> Height for structure within the 100-foot rear yard setback area and outside the 100-foot rear setback area.

## **Background**

### *El Camino Real Moratorium*

The project was originally scheduled for a Planning Commission study session on October 6, 2016. However, on October 4, 2016, the City Council held a special meeting to adopt an urgency ordinance to establish a temporary moratorium on development within the El Camino Real corridor. On November 15, 2016, the City Council extended the moratorium on development within the El Camino Real corridor for an additional four months in order to review the zoning regulations and design standards along the El Camino Real. On March 14, 2017, the City Council extended the moratorium an additional eight months in order to continue their review of changes and updates to the zoning regulations. Subsequently, the City adopted Zoning Code amendments related to the site standards for the CT District (Ordinance No. 2017-436) and affordable housing (Ordinance No. 2017-435). On November 15, 2017, the moratorium expired and the development proposal on the project site was allowed to proceed again.

### *City Council-Planning Commission Joint Study Session*

On January 16, 2018, the City Council held a joint study session with the Planning Commission to consider, among other things, a proposal from the Applicant to evaluate two alternative designs for the multiple-family project on the site. Both projects would be five-stories and similar in overall size, but one would require a density bonus over 35 percent and offer the City additional affordable units. The first proposal included 38 units with five affordable units, utilizing a 35-percent density bonus with mostly two- and three-bedroom units. The second proposal included 50 units with eight affordable units, utilizing a 75.25-percent density bonus with an increased number of one- and two-bedroom units and fewer three-bedroom units. Following a presentation by the Applicant and public comment, the Council and Commission discussed the proposals, with a majority of both bodies expressing support for the higher density proposal since it would provide the City with additional affordable units and reduce the average size of all of the units in the project; thus making them more affordable by design.

### *Planning Commission Study Session*

On April 19, 2018, the Planning Commission held a study session to review and provide feedback on the project's architectural and site design. Overall, the Commission, with only four members present, expressed general support for the project design, but noted that it should consider an improved mix of exterior materials, reduce the amount of stucco used, make sure landscaping along the side property lines was shade tolerant, and consider a different mix of exterior colors. A copy of the Planning Commission study session minutes is included as Attachment C.

### *Complete Streets Commission*

On May 23, 2018, the Complete Streets Commission held a public meeting to consider the Project. As specified by the Zoning Code, the Commission is tasked with reviewing the bicycle, pedestrian, parking and traffic elements of a development application and providing an advisory recommendation to the Planning Commission and City Council. The Commission expressed general support for the Project, but expressed concern about the project increasing traffic on nearby side streets, potential parking spill-over on nearby residential streets and an increase in traffic on streets like Jordan Avenue, potentially creating an unsafe path for school kids. The Commission also expressed concern that

project's bike parking was underestimated, even though it significantly exceeded VTA's bicycle parking guidelines. Following the discussion, the Commission voted unanimously to recommend approval of the project to the Planning Commission and City Council. A copy of the Complete Streets Commission meeting minutes is included as Attachment D.

*Story Pole Exemption and Installation*

On May 8, 2018, the City Council held a public meeting to consider a request from the Applicant for an exception from the City's Story Pole Policy due to safety concerns and impairment of the use of the existing structures on the site. The exemption request proposed a modified story pole plan that installed some, but not all, of the story poles required by the Policy. Following a discussion with the Applicant, the Council voted to approve the exemption request with the modified story pole plan.

On July 10, 2018, due to complications with the story pole installation, the Applicant returned to City Council and requested a full exemption from the City's Story Pole Policy. Following a discussion with the Applicant, the Council voted to deny the exemption request and directed staff to require the modified story pole plan be implemented before the project was scheduled for review by the Planning Commission.

On August 15, 2018, staff received a certification letter from the project's civil engineer verifying that the story poles had been installed per the approved plan. A copy of the certification letter and the approved story pole plan is included in Attachment B.

**Discussion/Analysis**

*General Plan*

The General Plan contains goals and policies for the El Camino Real Corridor in the Land Use Element, Community Design & Historic Resources Element, Economic Development Element, and Housing Element which emphasize increasing commercial vitality, intensification of development, developing housing, including affordable housing, improving the streetscape of the El Camino Real corridor and ensuring compatibility with adjacent residential land uses and nearby single-family neighborhoods.

The Housing Element encourages maximum densities of residential development as well as facilitating affordable housing. The project is proposing a density of 69 units per acre, which would exceed the maximum density allowed for the El Camino Real corridor (38 dwellings per acre) and includes eight affordable dwelling units. The site is identified as an opportunity site in the Housing Element, with the potential to achieve up to 21 units. So, with proposed 50 units, eight of which are affordable, the project would significantly exceed the General Plans' housing projection for this site.

The Land Use Element encourages intensification along the El Camino Real corridor while also requiring that new development be compatible with nearby residential land uses. The site is adjacent to multiple-family land uses to the south and west, which include two-story apartment buildings and medium density condominiums (Los Altos Square). The proposed building has stepped massing that lowers as it gets closer to the adjacent multiple-family residential properties to the rear and a strong landscape buffer, including mature Redwood trees and an eight-foot tall masonry wall, along the rear property line.

The project is also consistent with the Community Design & Historic Resources and Economic Development elements since it will be improving the streetscape of the El Camino Real corridor, is designed to be compatible with the nearby residential neighborhood and will be improving economic vitality along the Corridor.

#### *Zoning*

The project is seeking incentives for increased building height and a reduced rear yard setback, and waivers for the height of the elevator tower and size of its rooftop structures, which are further discussed below. Beyond these requests, the project meets or exceeds the minimum site standards for the CT District and other applicable Zoning Code requirements. The front setback is 25 feet, where 25 feet is required. The side setbacks range from approximately five to 19 feet, with an average setback of 8.5 feet on the left side and an average setback of 7.5 feet on the right side. An average of 7.5 feet is required from each side property line.

The CT District also requires multiple-family projects to provide permanently maintained open space, both private and common, as part of the development. For private open space, an average of 50 square feet per unit must be provided and a total of 2,400 square feet of common open space must be provided for a project with 50 units. As specified on Sheet A39 of the project plans, an average of 214 square feet of private open space per unit is being provided and a total of 8,855 square feet of common open space is being provided. Thus, the project is significantly exceeding the minimum standards required by Code.

As part of the common open space provided by the project, a 5,422 square-foot roof deck is proposed. This roof deck includes an outdoor kitchen, bocce court, fire pits, a water feature and a variety of seating areas. To ensure that rooftop uses such as this do not create negative impacts with regard to noise, light or other related activities, the CT District has established performance standards for rooftop uses. While it appears that the proposed rooftop deck will be able to comply with all applicable performance standards, appropriate conditions of approval have been included to ensure that the roof deck is in compliance both in terms of construction and long-term operation.

The project is seeking a total of three development incentives and two waivers in exchange for providing affordable housing. The first incentive is a height increase to allow a building height of 58 feet, where the Code allows a height of 45 feet, and a building height of 34.3 feet for the rear portion of the building where the Code allows a height of 30 feet. The other two incentives are for a reduced rear yard setback, two 20 percent reductions, to allow the fourth and fifth stories of the building to have a 60-foot setback where the Code requires a 100-foot setback. The two waivers that are being sought include allowing the elevator tower to be 17.9 feet above the roof deck where the Code allows a height of 12 feet and allowing the rooftop structures, which enclose the elevator tower, stairwells and trash chutes, to occupy 4.6-percent of the rooftop where the Code allows for a maximum of four-percent.

The project is also seeking a density bonus to exceed the CT District's residential density of 38 dwelling units per acre. The project site is 0.73 acres in size, which result in an allowable base density of 28 units. Based on the number of affordable units that are being provided, the Applicant has requested

a density bonus of 75.25 percent, which would allow for 22 additional units to be built on the site, resulting in a total of 50 units. The density bonus, development incentives and waivers are discussed in more detail in the Affordable Housing section below.

With regard to on-site parking, since the project is providing affordable housing, it is subject to the parking standards specified in Section 14.28.040(G). Based on these standards, the project is required to provide one onsite parking space per each one-bedroom unit and two on-site parking spaces for each two- or three-bedroom unit, which results in a minimum of 91 on-site parking spaces being required. These parking standards could be further reduced since the project is near a major transit stop, but the Applicant has not requested this reduction. The project is proposing a total of 108 parking spaces, which includes 40 tandem spaces, 60 standard spaces and three accessible spaces in two levels of underground parking. Of these spaces, eight are specified for guest parking on the first level of the underground garage. Overall, the proposed parking exceeds the minimum established by the Zoning Code. To ensure that the tandem spaces function properly, a condition has been added that requires both spaces to be owned by the same unit.

#### *Bicycle and Pedestrian Amenities*

As recommended by the VTA guidelines, the project should provide at least 17 Class I bicycle parking spaces and four Class II spaces. As shown on the project plans (Sheets A0 and A1) a total of 45 secure bike storage spaces in the underground parking garage are proposed. This includes 29 individual lockers (Class I) and 16 protected bike racks (Class I equivalent). In addition, two bicycle racks with four spaces (Class II) are proposed at street level next to the building's front entrance on El Camino Real. Thus, the project is significantly exceeding the VTA Guidelines for bicycle parking spaces.

The project will be replacing the 7.5-foot wide public sidewalk along its full El Camino Real frontage (145 feet) and will be replacing the two existing driveway cuts with one new driveway cut to serve the underground garage parking garage. The building's front entrance is accessed via a wide walkway from the back of the public sidewalk. Common areas with pedestrian amenities for the building's residents are provided in the rear yard of the site and on a roof deck. Overall, the project's bicycle and pedestrian amenities appear to meet or exceed all applicable City policies and guidelines.

#### *Design Review*

In order to approve the project, the Commission must make positive design review findings as outlined in Section 14.78.050 of the Municipal Code. These design review findings are summarized as follows:

- The project meets the goals, policies and objectives of the General Plan and complies with any Zoning Code design criteria for the CT District;
- The project has architectural integrity and an appropriate relationship with other structures in the immediate area in terms of height, bulk and design;
- The horizontal and vertical building mass is articulated to relate to the human scale; it has variation and depth of building elevations to avoid large blank walls; and the residential elements that signal habitation such as entrances, stairs, porches, bays and balconies;
- The exterior materials that convey high quality, integrity, permanence and durability, and materials are used effectively to define building elements such as base, body, parapets, bays,

arcades and structural elements; and the materials, finishes, and colors have been used in a manner that serves to reduce the perceived appearance of height, bulk and mass, and are harmonious with other structures in the immediate area;

- The landscaping is generous and inviting, the landscape and hardscape complements the building and is well integrated with the building architecture and surrounding streetscape, and the landscape includes substantial street tree canopy;
- Any signage is appropriately designed to complement the building architecture; and
- Rooftop mechanical equipment and utility and trash areas are appropriately screened and integrated into the building's architectural design.

Overall, the project reflects a desired and appropriate development intensity for the CT District and the El Camino Real corridor. It achieves the maximum housing density permitted, which benefits the City's housing goals while also providing stepped massing from the rear property line and articulation along the front and sides to limit the perception of bulk and mass. It maintains and enhances the existing landscape buffer, which includes nine mature redwood trees, along the rear yard to minimize the visual impact on the adjacent multiple-family residential properties and establishes an appropriate level of compatibility with the nearby residential uses.

The exterior building materials appropriately define the building elements and convey the project's quality, integrity, durability and permanence. The project color palate has been updated to better define building elements and soften the overall appearance. The use of integrated metal panels, horizontal shiplap siding and control joints in the stucco conveys a sense of quality materials and supports the articulation to create smaller elements and reduced bulk and mass.

The landscape plan appears generous and inviting. Four new street trees will be planted in the El Camino Real right-of-way along the sidewalk and four specimen Coral Bark maples will be planted in the front yard space. The landscaping includes various levels with smaller plantings near the sidewalk with taller species and raised planters as it moves toward the face of the building. Board formed concrete seat walls, large form pavers and wood fences establish a base about the building.

The project does not propose any signage along the building frontage beyond an address number and directional signage as necessary by Code. The rooftop mechanical equipment is screened by architecturally integrated parapet walls, the ground level utilities are screened by the wood fencing along the sides and the trash area is located within the underground garage. Overall, as evidenced in this discussion and as further supported by the findings contained in Exhibit A of the resolution (Attachment A), the project has met the City's required design review findings.

#### *CT District Design Controls*

In addition to complying with the General Plan and standard design review findings, the project must address the CT District's design controls (Section 14.50.150), which speak to issues such as scale, building proportions, bulk, and screening rooftop mechanical equipment as follows:

- In terms of scale, because of the district's relationship to the larger region, a mixture of scales is appropriate with some elements scaled for appreciation from the street and moving vehicles and others for appreciation by pedestrians;



- The building element proportions, especially those at the ground level, should be kept close to a human scale by using recesses, courtyards, entries, or outdoor spaces;
- At the residential interface, building proportions should be designed to limit bulk and protect residential privacy, daylight and environmental quality; and
- Rooftop mechanical equipment should be screened from public view.

Overall, as discussed above, the project appears to have adequately addressed these design controls.

*Affordable Housing - Density Bonus and Development Incentives*

The project exceeds the City's affordable housing regulations by providing eight affordable housing units, where three are required. Chapter 14.28 of the Municipal Code requires a minimum of 10 percent of the units as affordable at the moderate income level. The Code also stipulates that if there is more than one moderate income unit required, then the project must provide at least one of the units at the low or very-low income level. Since the base density for the project is 28 dwelling units, the project must provide 2.8 (rounded up to three) affordable units. By providing two moderate income units and one very-low income unit, the project is in compliance with the City's Affordable Housing Ordinance.

Housing Element program 4.3.2 requires that affordable housing units generally reflect the size and number of bedroom of the market rate units. In this case, the overall project is proposing nine one-bedroom units, 30 two-bedroom units and 11 three-bedroom units. Of this unit mix, one three-bedroom unit is designated affordable at the moderate income level, one two-bedroom unit is proposed at the moderate income level and six one-bedroom units are proposed at the very-low income level. While the mix of affordable units incorporates a larger number of one-bedroom units than the average of the market rate units, given the high percentage of overall affordable units proposed, it appears that this mix of affordable housing meets the intent of the program.

Under the State's density bonus regulations (Section 65915 of the California Government Code), the project qualifies for a density bonus if it provides at least five percent very-low income units. With six affordable units at the very-low income level and two affordable units at the moderate level, the project is providing 29 percent of its base density as affordable. Since providing only 11 percent very-low income units would qualify the project for a 35 percent density bonus, the project is significantly exceeding the maximum as specified in State Law or the City's Affordable Housing Ordinance. However, both State Law and the City's Ordinance allow for the City to grant a density bonus over 35 percent if an appropriate number of additional affordable units are proposed. In this case, the Applicant is seeking a density bonus of 75.25 percent in exchange for providing 29 percent of his base density as affordable.

In addition to the density bonus, since the project is providing more than 11 percent of its units as affordable at the very-low income level, it qualifies for three development incentives per State Law and City Ordinance. To help guide incentives requested by developers and ensure that the incentives do not result in any adverse impacts, the City adopted a list of on-menu incentives or concessions. However, per State Law and City Ordinance, a project may still request any incentive or concession that they deem appropriate in exchange for the affordable units being provided (off-menu). In this case, as outlined above, the project is seeking a height incentive to allow the project to exceed the

maximum height limit of 45 feet by 13 feet (off-menu) and two 20 percent reductions in the rear yard setback for the upper floors (on-menu). The project is also seeking two waivers, which are considered more minor in nature, are needed to construct the project and do not require use of an incentive or concession. In this case, the project is seeking a waiver for the height of its elevator tower to go beyond the 12-foot limit since there are no elevators commercially available that can comply with the 12-foot height limit for a building of this height and to allow the size of the rooftop structures that enclose the elevator, stairways and trash chutes to exceed the maximum four percent threshold by 0.6 percent. Both of these waiver requests appear appropriate and reasonable for a project of this size and scope.

Under State Law and City Ordinance, the City must give deference to the Applicant on granting the requested development incentives unless it can make one or more of the following findings:

- The concession or incentive does not result in identifiable and actual cost reductions, consistent with the definition of "concession" or "incentive," to provide for affordable housing costs, as defined in Health & Safety Section 50052.5, or for rents for the targeted units to be set as specified in subsection (I).
- The concession or incentive would have a specific, adverse impact upon public health and safety or the physical environment or on any real property that is listed in the California Register of Historical Resources and for which there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact without rendering the development unaffordable to low-income and moderate-income households
- The concession or incentive would be contrary to state or federal law.

A Density Bonus Report that supports the density bonus and development incentive requests was prepared by the Applicant and is included in Attachment B.

For reference, the moderate income housing units would be limited in cost to be affordable to a household that makes no more than 120 percent of the County's median income and the very-low income housing units would be limited in cost to be affordable to a household that makes no more than 50 percent of the County's median income. The County's median family income for FY 2018 is \$125,200 per HCD calculations.

#### *Use Permit*

Since multiple-family residential uses are identified as a conditional use in the CT District, a use permit is required as part of the project approval. The location of the use is desirable in that it improves an underdeveloped property along the City's El Camino Real corridor with an appropriate amount of high-quality market rate and below market rate housing. The project meets other objectives specified in the Zoning Code, which include maintaining an appropriate relationship with adjacent land uses, maintaining a safe traffic circulation pattern, and providing a high-quality design that enhances the City's distinctive character.

Due to the location of the site along the El Camino Real corridor and its relatively narrow frontage, it has limited commercial potential for the development of new retail space, but office uses may be feasible in this location. However, given the housing targets set in the City's Housing Element, the

City's Council's priority to see more affordable housing developed and the limited number of sites that can accommodate higher density housing projects, an all residential project at this location is desirable and essential for the City's comfort, convenience, prosperity and welfare, and in accordance with the overall objectives of the Zoning Code.

*Subdivision*

The project includes a Vesting Tentative Map for Condominium purposes. The subdivision divides the building into 50 residential units and associated private and common areas. Under State law, a Vesting Tentative Map freezes the City's regulations that apply to the subdivision at the time of entitlement and provides certainty for the applicant.

The subdivision conforms to the permitted General Plan and Zoning Code densities as modified by State law. The subdivision is not injurious to public health and safety, and is suitable for the proposed type of development, and the subdivision provides proper access easements for ingress, egress, public utilities and public services.

*Environmental Review*

The project site, which is 0.73 acres in size, is considered a small in-fill site that is substantially surrounded by urban uses and does not contain significant natural habitat for endangered species. The development proposal is consistent with the General Plan and Zoning Ordinance, does not result in any significant effects related to traffic, noise, air or water quality, and is adequately served by all required utilities and public services. Therefore, in accordance with Section 15332 of the California Environmental Quality Act (CEQA) Guidelines the project is exempt from further environmental review.

With regard to traffic, Implementation Program C8 in the General Plan's Circulation Element requires a transportation impact analysis (TIA) for projects that result in 50 or more net new daily trips. As outlined in the project's traffic report prepared by Hexagon Transportation Consultants (Attachment E), the proposed project will generate 272 average daily trips as compared with the property's existing uses, which include a mix of office and personal service uses, that generate 228 average daily trips. Since the net increase is only 44 average daily trips, a full TIA is not required for this project.

With regard to air quality, since the project is located on a State Highway, the project could potentially expose long-term residents to air pollution and the project's construction has the potential to create short-term air pollution impacts. To address these potential impacts, an air quality and greenhouse gas emission assessment was prepared for the project by Illingworth & Rodkin (Attachment F). The assessment provides appropriate mitigation measures for controlling dust and exhaust during construction, air filtration for the dwellings, and construction equipment emission guidelines. The report's recommended mitigations are included as conditions of approval. With regard to greenhouse gas emissions, project does not exceed any of the significant thresholds as specified by the Bay Area Quality Management District's Clean Air Plan, so no mitigation measures are required. The applicant has also completed the City's Climate Action Plan checklist for new development (Attachment B) and will be complying with all applicable requirements to ensure that the project support's the City's greenhouse gas emission reduction targets.

**Subject:** Proposed Five-Story, 50-Unit Multiple-Family Building at 4856 El Camino Real

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With regard to noise, due to the site's proximity to a State Highway, the project is located in an area that may expose its residents to higher noise levels and the project's rooftop mechanical equipment may generate off-site noise levels that exceed thresholds established in the City's Noise Control Ordinance. To address these potential noise impacts, a noise study was prepared by Wilson Ihrig (Attachment G). To ensure that there are no significant noise impacts, the study recommends mitigation measures that specify certain types of exterior glazing, exterior wall construction and supplemental ventilation, and rooftop mechanical equipment noise controls so that the noise levels do not exceed City standards. Appropriate conditions of approval to ensure that the project is designed to comply with the noise study mitigation measures are included.

To evaluate potential tree impacts, an arborist report was prepared by Kiely Arborist Services (Attachment H). The arborist report evaluated the condition of 13 existing trees on the site and along its El Camino Real frontage and provided tree protection measures for the trees that are proposed to remain. All significant trees on the site, which include the nine mature redwood trees along the rear property line, are proposed to remain and are identified as being in good health. Four smaller trees, three of which are along El Camino Real, are proposed for removal. The tree protection measures for the redwood trees along the rear have been appropriately incorporated in the conditions of approval.

Overall, as documented above, the project's technical studies support the finding that the project meets the criteria and conditions to qualify for as an in-fill development project that is exempt from further environmental review.

#### *Public Contact and Correspondence*

For this meeting, a public hearing notice was published in the *Town Crier*, and mailed to the 154 property owners and business and residential tenants within 500 feet of the site. A public notice billboard with color renderings was installed along the project's El Camino Real frontage and story poles to represent the corners of the building and the elevator tower, as approved by the City Council (see discussion above) were installed. A story pole certification letter from the project engineer is included as Attachment B.

In addition to the required public notification, the applicant has conducted specific outreach to the owners of the directly adjacent properties, the tenants in the apartment buildings to the rear and the owners of the Los Altos Square Townhomes to the south and west of the project. These outreach efforts are summarized in the applicant's cover letter (Attachment B). To-date, staff has not received any correspondence from any nearby property owners or tenants regarding this prospect. However, staff has received a letter of support for the project from Carl Guardino with the Silicon Valley Leadership Group (Attachment I).

# ATTACHMENT A

## RESOLUTION NO. 2018-\_\_

### **A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LOS ALTOS MAKING FINDINGS, ADOPTING AN EXEMPTION UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AND APPROVING THE DESIGN REVIEW, USE PERMIT AND SUBDIVISION APPLICATIONS FOR A NEW 50-UNIT MULTI-FAMILY PROJECT AT 4856 EL CAMINO REAL**

**WHEREAS**, the City of Los Altos received a development application from Mircea Voskerician, LuxOne LLC (Applicant), for a new 50-unit multiple-family residential building at 4846 and 4856 El Camino Real that includes Design Review 18-D-01, Use Permit 18-UP-01 and Subdivision 18-SD-01, referred to herein as the “Project”; and

**WHEREAS**, the Applicant is offering two moderate-income and six very-low-income affordable housing units as part of the Project; and

**WHEREAS**, the Applicant is seeking incentives under Government Code Section 65915(e) and Los Altos Municipal Code Section 14.28.040 to allow: a) a building with a primary height of 58 feet and a height of 35 feet for the rear portion, where the Code allows for 45 feet and 30 feet, respectively; and b) a rear yard setback of 60 feet for the five-story portion of the building, where the Code requires a rear yard setback of 100 feet; and

**WHEREAS**, the Applicant is seeking further waivers under Government Code Section 65915(e) to allow: a) the elevator tower to be 17.9 feet above the roof, where the Code allows such structures to be 12 feet above the roof; and b) enclosed roof top structures at 4.6 percent of the roof area, where the Code limits such structures to four percent of the roof area; and

**WHEREAS**, the Applicant is seeking a 75.25 percent density bonus, the incentives and waivers to allow development of the Project pursuant to Government Code 65915 and Los Altos Municipal Code Section 14.28.040; and

**WHEREAS**, said Project is exempt from environmental review as in-fill development in accordance with Section 15332 of the California Environmental Quality Act of 1970 as amended (“CEQA”); and

**WHEREAS**, said Project has been processed in accordance with the applicable provisions of the California Government Code and the Los Altos Municipal Code; and

**WHEREAS**, on May 23, 2018, the Complete Streets Commission held a public meeting on the Project and at the conclusion of the meeting voted to recommend approval to the Planning Commission and City Council; and

**WHEREAS**, on September 4, 2018 the City gave public notice of the Planning Commission’s public hearing on the proposed Project by advertisement in a newspaper of general circulation and to all property owners within a 500-foot radius; and

**WHEREAS**, on September 20, 2018, the Planning Commission conducted a duly-noticed public hearing at which members of the public were afforded an opportunity to comment

# ATTACHMENT A

upon the Project, and at the conclusion of the hearing, the Planning Commission recommended that the City Council \_\_\_\_ the Project; and

**WHEREAS**, on \_\_\_\_\_, 2018, the City Council held a duly noticed public meeting as prescribed by law and considered public testimony and evidence and recommendations presented by staff related to the Project; and

**WHEREAS**, all the requirements of the Public Resources Code, the State CEQA Guidelines, and the regulations and policies of the City of Los Altos have been satisfied or complied with by the City in connection with the Project; and

**WHEREAS**, the findings and conclusions made by the City Council in this Resolution are based upon the oral and written evidence presented as well as the entirety of the administrative record for the proposed Project, which is incorporated herein by this reference. The findings are not based solely on the information provided in this Resolution; and

**WHEREAS**, all other legal prerequisites to the adoption of this Resolution have occurred.

**NOW THEREFORE, BE IT RESOLVED**, that the City Council of the City of Los Altos hereby approves the Project subject to the findings and the conditions of approval attached hereto as “Exhibit A” and “Exhibit B,” and incorporated by this reference.

**I HEREBY CERTIFY** that the foregoing is a true and correct copy of a Resolution passed and adopted by the City Council of the City of Los Altos at a meeting thereof on the \_\_ day of \_\_\_\_\_, 2018 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

\_\_\_\_\_  
Jean Mordo, MAYOR

Attest:

\_\_\_\_\_  
Jon Maginot, CMC, CITY CLERK

# ATTACHMENT A

## EXHIBIT A

### FINDINGS

1. ENVIRONMENTAL REVIEW FINDINGS. With regard to environmental review, the City Council finds, in accordance with Section 15332 of the California Environmental Quality Act Guidelines, that the following Categorical Exemption findings can be made:
  - a. The Project is consistent with the applicable General Plan designation and all applicable General Plan policies as well as with the applicable zoning designation (Commercial Thoroughfare) and regulations, including density bonus, incentives and waivers for the production of affordable housing;
  - b. The Project occurs within city limits on a site of no more than five acres that is substantially surrounded by urban uses and there is no record that the site has value as habitat for endangered, rare or threatened species;
  - c. Approval of the Project will not result in any significant effects relating to traffic, noise, air quality, or water quality and the completed technical studies and staff analysis contained in the agenda report support this conclusion; and
  - d. The Project has been reviewed and it is found that the site can be adequately served by all required utilities and public services.
2. DESIGN REVIEW FINDINGS. With regard to Design Review Application 18-D-01, the City Council finds, in accordance with Section 14.76.060 of the Los Altos Municipal Code, as follows:
  - a. The Project meets the goals, policies and objectives of the General Plan with its level of intensity and residential density within the El Camino Real corridor, and all Zoning Code site standards and design criteria applicable for a project in the CT District;
  - b. The Project has architectural integrity and has an appropriate relationship with other structures in the immediate area in terms of height, bulk and design because the project utilizes high quality materials that support its architectural style and is appropriately articulated and scaled to relate to the larger buildings on the El Camino Real corridor;
  - c. Building mass is articulated to relate to the human scale, both horizontally and vertically as evidenced in the design of the projecting overhangs, bay windows and balconies, the building elevations have variation and depth and avoid large blank wall surfaces, and the project has incorporated elements that signal habitation, such as identifiable entrances, overhangs, bay windows and balconies;
  - d. The Project's exterior materials and finishes convey high quality, integrity, permanence and durability, and materials are used effectively to define building elements. Materials, finishes, and colors have been used in a manner that serves to reduce the perceived appearance of height, bulk and mass, and are harmonious with other structures in the immediate area.

# ATTACHMENT A

- e. Landscaping such as the large specimen coral bark maple trees, Brisbane box street trees, Saratoga laurel evergreen screening trees, hedges and groundcover is generous and inviting and landscape and hardscape features such as the custom paver walkway, board formed concrete planters and wood privacy fences are designed to complement the building and parking areas and to be integrated with the building architecture and the surrounding streetscape. Landscaping includes substantial street tree canopy including four new street trees in the public right-of-way, four new specimen coral bark maple trees in the front yard space and 11 new trees along the site perimeter;
  - f. Signage, which is limited to the building address number and other required directional signage, will be designed to complement the building architecture in terms of style, materials, colors and proportions;
  - g. Mechanical equipment is screened from public view by the building parapet and is designed to be consistent with the building architecture in form, material and detailing; and
  - h. Service, trash and utility areas are screened from public view by their locations in the building garage and behind fencing in the side yards, and consistent with the building architecture in materials and detailing.
3. USE PERMIT FINDINGS. With regard to Use Permit 18-UP-01, the City Council finds, in accordance with Section 14.80.060 of the Municipal Code, as follows:
- a. The proposed location of the multiple-family residential use is desirable and essential to the public comfort, convenience, prosperity, and welfare in that there are a limited number of sites that can accommodate new housing, the CT District has anticipated and planned for new housing along the El Camino Real corridor and the project provides housing at a variety of affordability levels;
  - b. That the proposed location of the multiple-family residential use is in accordance with the objectives of the Zoning Code since the project provides for community growth along sound lines, it is harmonious and convenient in relation to the surrounding land uses, it does not create any significant traffic impacts, it will help the City meet its affordable housing goals, it will protect and enhance property values and it will enhance the City's distinctive character with a high-quality building design in a commercial thoroughfare context;
  - c. That the proposed location of the multiple-family residential use, under the circumstances of the particular case and as conditioned, will not be detrimental to the health, safety, comfort, convenience, prosperity, or welfare of persons residing or working in the vicinity or injurious to property or improvements in the vicinity; and
  - d. That the proposed multiple-family residential use complies with the regulations prescribed for the CT District and the general provisions contained in Chapter 14.02.



# ATTACHMENT A

4. SUBDIVISION FINDINGS. With regard to Subdivision 18-SD-01, the City Council finds, in accordance with Section 66474 of the Subdivision Map Act of the State of California, as follows:
  - a. The proposed condominium subdivision is consistent with the General Plan;
  - b. The Project site is physically suitable for this type and density of development in that the project meets all applicable Zoning requirements except where a density bonus and development incentives have been granted;
  - c. The design of the condominium subdivision and the proposed improvements are not likely to cause substantial environmental damage, or substantially injure fish or wildlife; and no evidence of such has been presented;
  - d. The design of the condominium subdivision is not likely to cause any serious public health problems because conditions have been added to address noise, air quality and life safety concerns; and
  - e. The design of the condominium subdivision will not conflict with any public access easements as none have been found or identified on this site.

# ATTACHMENT A

## EXHIBIT B

### CONDITIONS

#### GENERAL

1. **Approved Plans**

The project approval is based upon the plans received on July 20, 2018, except as modified by these conditions.

2. **Affordable Housing**

The applicant shall offer the City eight (8) below market rate units as follows: a) one (1) three-bedroom unit at the moderate-income level; b) one (1) two-bedroom unit at the moderate-income level; and c) six (6) one-bedroom units at the low-income level.

3. **Upper Story Lighting**

Any exterior lighting above the ground floor on the sides and rear of the building and on the rooftop deck shall be shrouded and/or directed down to minimize glare.

4. **Encroachment Permit**

An encroachment permit and/or an excavation permit shall be obtained prior to any work done within the public right-of-way and it shall be in accordance with plans to be approved by the City Engineer. *Note: Any work within El Camino Real will require applicant to obtain an encroachment permit with Caltrans prior to commencement of work.*

5. **Public Utilities**

The applicant shall contact electric, gas, communication and water utility companies regarding the installation of new utility services to the site.

6. **Americans with Disabilities Act**

All improvements shall comply with Americans with Disabilities Act (ADA).

7. **Stormwater Management Plan**

The applicant shall submit a complete Stormwater Management Plan (SWMP) and a hydrology calculation showing that 100% of the site is being treated; is in compliance with the Municipal Regional Stormwater NPDES Permit (MRP). Applicant shall provide a hydrology and hydraulic study, and an infeasible/feasible comparison analysis to the City for review and approval for the purpose to verify that MRP requirements are met.

8. **Sewer Lateral**

Any proposed sewer lateral connection shall be approved by the City Engineer.

9. **Transportation Permit**

All vehicles/loads exceeding a maximum gross weight of three tons are required to adhere to Los Altos Muni Code Chapter 8.16. Transportation Permits are approved by the City Engineer and shall follow State requirements as provided in California Vehicle Code Division 15.

# ATTACHMENT A

## 10. **Indemnity and Hold Harmless**

The applicant/owner agrees to indemnify, defend, protect, and hold the City harmless from all costs and expenses, including attorney's fees, incurred by the City or held to be the liability of the City in connection with the City's defense of its actions in any proceedings brought in any State or Federal Court, challenging any of the City's action with respect to the applicant's project.

## **PRIOR TO SUBMITTAL OF BUILDING PERMIT**

## 11. **Green Building Standards**

The applicant shall provide verification that the project will comply with the City's Green Building Standards (Section 12.26 of the Municipal Code) from a qualified green building professional.

## 12. **Property Address**

The applicant shall provide an address signage plan as required by the Building Official.

## 13. **Water Efficient Landscape Plan**

Provide a landscape documentation package prepared by a licensed landscape professional showing how the project complies with the City's Water Efficient Landscape Regulations.

## 14. **Air Quality Mitigation**

The applicant shall implement and incorporate the air quality mitigations into the plans as required by the report prepared by Illingsworth & Rodin, Inc., dated March 6, 2018.

## 15. **Noise Mitigation**

The applicant shall implement and incorporate the noise mitigation measures into the plans as required by the report by Wilson Ihrig, dated March 6, 2018.

## 16. **Rooftop Deck**

Provide design details for the rooftop deck sufficient enough to verify that the space can operate in compliance with the performance standards proscribed by Municipal Code Section 14.50.160.

## **PRIOR TO FINAL MAP RECORDATION**

## 17. **Covenants, Conditions and Restrictions**

The applicant shall include provisions in the Covenants, Conditions and Restrictions (CC&Rs) as follows:

- a. Storage on private patios and decks shall be restricted; and rules for other objects stored on private patios and decks shall be established with the goal of minimizing visual impacts.
- b. Long-term maintenance and upkeep of the landscaping and street trees, as approved by the City, shall be a duty and responsibility of the property owners. Specifically, the landscape buffer, including both trees and landscaping, along the rear property line shall be permanently maintained as required by Municipal Code Section 14.50.110(C).
- c. The rooftop deck shall be permanently maintained in accordance with the performance standards for Rooftop Uses in the CT District as currently proscribed by Municipal Code Section 14.50.160.

# ATTACHMENT A

- d. Both parking spaces in a tandem space shall be owned by the same unit and cannot be owned or sued by separate units.

## 18. **Public Utility Dedication**

The applicant shall dedicate public utility easements as required by the utility companies to serve the site.

## 19. **Payment of Fees**

The applicant shall pay all applicable fees, including but not limited to sanitary sewer impact fees, parkland dedication in lieu fees, traffic impact fees and map check fee plus deposit as required by the City of Los Altos Municipal Code.

## **PRIOR TO ISSUANCE OF BUILDING PERMIT**

## 20. **Final Map Recordation**

The applicant shall record the final map. Plats and legal descriptions of the final map shall be submitted for review by the City Land Surveyor. Applicant shall provide a sufficient fee retainer to cover the cost of the map review by the City.

## 21. **Sidewalk Lights**

The applicant shall maintain the existing light fixture and/or install new light fixture(s) in the El Camino Real sidewalk as directed by the City Engineer.

## 22. **Performance Bond**

The applicant shall submit a cost estimate for the improvements in the public right-of-way and shall submit a 100-percent performance bond and 50-percent labor and material bond (to be held 6 months until acceptance of improvements) for the public right-of-way work.

## 23. **Maintenance Bond**

A one-year, ten-percent maintenance bond shall be submitted upon acceptance of improvements in the public right-of-way.

## 24. **Storm Water Filtration Systems**

The applicant shall insure the design of all storm water filtration systems and devices are without standing water to avoid mosquito/insect infestation.

## 25. **Grading and Drainage Plan**

The applicant shall submit detailed plans for on-site and off-site grading and drainage plans that include drain swales, drain inlets, rough pad elevations, building envelopes, and grading elevations for review and approval by the City Engineer.

## 26. **Sewage Capacity Study**

The applicant shall show sewer connection to the City sewer main and submit calculations showing that the City's existing 27-inch sewer main will not exceed two-thirds full due to the additional sewage capacity from proposed project. For any segment that is calculated to exceed two-thirds full for average daily flow or for any segment that the flow is surcharged in the main due to peak flow, the applicant shall upgrade the sewer line or pay a fair share contribution for the sewer upgrade to be approved by the City Engineer.

# ATTACHMENT A

## 27. **Construction Management Plan**

The applicant shall submit a construction management plan for review and approval by the Community Development Director and the City Engineer. The construction management plan shall address any construction activities affecting the public right-of-way, including but not limited to excavation, traffic control, truck routing, pedestrian protection, material storage, earth retention and construction vehicle parking.

## 28. **Sewer Lateral Abandonment**

The applicant shall abandon additional sewer laterals and cap at the main if they are not being used. A property line sewer cleanout shall be installed within 5-feet of the property line within private property.

## 29. **Solid Waste Ordinance Compliance**

The applicant shall be in compliance with the City's adopted Solid Waste Collection, Remove, Disposal, Processing & Recycling Ordinance (LAMC Chapter 6.12) which includes a mandatory requirement that all commercial and multi-family dwellings provide for recycling and organics collection programs.

## 30. **Solid Waste and Recyclables Disposal Plan**

The applicant shall contact Mission Trail Waste Systems and submit a solid waste and recyclables disposal plan indicating the type, size and number of containers proposed, and the frequency of pick-up service subject to the approval of the Engineering Division. The applicant shall also submit evidence that Mission Trail Waste Systems has reviewed and approved the size and location of the proposed trash enclosure. The enclosure shall be designed to prevent rainwater from mixing with the enclosure's contents and shall be drained into the City's sanitary sewer system. The enclosure's pad shall be designed to not drain outward, and the grade surrounding the enclosure designed to not drain into the enclosure. In addition, applicant shall show on plans the proposed location of how the solid waste will be collected by the refusal company. Include the relevant garage clearance dimension and/or staging location with appropriate dimensioning on to plans.

## 31. **Tree Protection**

The applicant shall implement and incorporate the tree protection measures into the plans and on-site as required by staff and in accordance with the report by Kielty Arborist Services dated April 30, 2018.

## 31. **Affordable Housing Agreement**

The applicant shall execute and record an Affordable Housing Agreement, in a form approved and signed by the Community Development Director and the City Attorney, that offers eight below market rate units, for a period of at least 55-years, as defined in Condition No. 2. All of the below market rate units shall be constructed concurrently with the market rate units, shall be dispersed throughout the project as shown on the approved plans, and shall not be significantly distinguishable design, construction or materials.

# ATTACHMENT A

## PRIOR TO FINAL OCCUPANCY

### 32. Green Building Verification

The applicant shall submit verification that the structure was built in compliance with the California Green Building Standards pursuant to Section 12.26 of the Municipal Code.

### 33. Signage and Lighting Installation

The applicant shall install all required signage and on-site lighting per the approved plan. Such signage shall include the disposition of guest parking, the turn-around/loading space in the front yard and accessible parking spaces.

### 34. Acoustical Report

The applicant shall submit a report from an acoustical engineer ensuring that the rooftop mechanical equipment meets the City's noise regulations.

### 35. Landscape Installation and Verification

Provide a landscape Certificate of Completion, signed by the project's landscape professional and property owner, verifying that the trees, landscaping and irrigation were installed per the approved landscape documentation package.

### 36. Condominium Map

The applicant shall record the condominium map as required by the City Engineer.

### 37. Driveway Visibility

The applicant shall work with the Engineering Division to indicate a sufficient no parking area along El Camino Real to the north of the driveway to provide adequate sight visibility.

### 38. Sidewalk in Public Right-of-Way

The applicant shall install new sidewalk, vertical curb and gutter, and driveway approaches from property line to property line along the frontage of El Camino Real as required by the City Engineer.

### 39. Public Infrastructure Repairs

The applicant shall repair any damaged right-of-way infrastructures and otherwise displaced curb, gutter and/or sidewalks and City's storm drain inlet shall be removed and replaced as directed by the City Engineer or his designee. The applicant is responsible to resurface (grind and overlay) half of the street along the frontage of El Camino Real if determined to be damaged during construction, as directed by the City Engineer or his designee. *Note: Any work within the El Camino Real will require applicant to obtain encroachment permit with Caltrans prior to commencement of work.*

### 40. SWMP Certification

The applicant shall have a final inspection and certification done and submitted by the Engineer who designed the SWMP to ensure that the treatments were installed per design. The applicant shall submit a maintenance agreement to City for review and approval for the stormwater treatment methods installed in accordance with the SWMP. Once approved, City shall record the agreement.

# **ATTACHMENT B**

## **Applicant Materials**

- Cover Letter
- Density Bonus Report
- Climate Action Plan New Development Checklist
- Story Pole Certification and Approved Story Pole Plan

August 10, 2018

Planning Commission  
Attn: Pheobe Bressack  
Los Altos City Hall  
1 North San Antonio Road  
Los Altos, CA 94022

The vision of Altos One is to offer a turn-key “city-living lifestyle” in the suburban market. It is a 50-unit residential condominium development with integrated services and community living spaces that embody the type of transit-supportive development envisioned through Grand Boulevard Initiative that City of Los Altos is part of. This site is a perfect example of a new infill development. Strategically located close to the largest mixed-use retail and consumer services center in the area, Altos One is expected to bring urban style and sophistication to the El Camino corridor of Los Altos.

The development has been designed to accommodate the unique mix of buyers in the area, including downsizing seniors, millennials, and multi-generational families. We chose specific features to meet the needs of each of these groups, such as offices in select units (for remote workers) and single-floor configurations (for seniors).

The suburban world is changing rapidly to bring elements of urban living. To accommodate this, we’ve chosen a location close to services, installed bike lockers, and built-in many features to make this a self-contained community.

Highlights of the project include:

- Open-living floor plans generally larger than other nearby developments
- All units single-story to maximize living space while appealing to all generations
- 550 square foot fitness facility with private spa-like patio
- 900 square foot Gathering Room with Kitchen and AV services overlooking El Camino
- 5500 square foot rooftop deck with grilling stations, bocce court, dining tables, and outdoor theater
- Storage units on each floor and bike lockers, in the underground parking designated for each unit
- Private community backyard nestled among towering redwoods
- “Solar-ready” wiring and mounts for solar panels on the rooftop deck
- Walking distance to Cal Train and directly on a major bus route

### **Project Rationale and Benefits**

The Altos One development brings greatly needed market rate and affordable housing to Los Altos in the only area where high-density housing is possible, along El Camino Real. Located directly behind Altos One is an existing apartment complex, Los Altos Court. A recently approved 5-story, 21-unit residential condominium development is located next door at 4880 El Camino Real. These affirm the applicability of constructing housing in this location.

Within a quarter mile there are two supermarkets (Whole Foods and Safeway) along with more than 20 restaurants, dozens of consumer services or retail outlets, a hotel, and theater (coming soon). There is little need for commercial services in this area but a substantial demand for residential units.

Altos One benefits Los Altos in several ways:

- Providing approximately 10% of the housing units required in the current housing element
- Anticipated provision of over \$1,000,000 in property tax revenue (based on sales projections)
- Addition of 8 “below market rate” housing units
- Continuing legacy of luxury and sophistication in residential construction
- Reinforces the “urban living” trend along El Camino Real



### **Building Design**

The building was designed with a high-end modern aesthetic and features a variety of exterior finishes including: a smooth stucco finish, siding accents and lower level railings, elegant glass railings at upper levels for contrast and views, architectural metal panels for feature elements, and board formed concrete at walls and planters. The building façade is highly articulated with multiple plane changes. These mostly vertical elements are broken up with a variety of horizontal balcony elements and canopies which accentuate the building forms. The building layout features a grand two story lobby entrance with a feature steel and glass stairway and glass railings at the second level.

The L-shaped lot and building footprint dictated the location of the elevator, stairway, and other building services at the elbow of the building mass. In order to make this space a bright and pleasant place we have designed a light-well that runs from the roof to the first floor. This feature floods the intersection of the main hallways with light and provides a dramatic focal point at the exit of the elevator on each floor.

This building was designed to meet the needs of many different buyer profiles. As such, it includes a Fitness Room, a Gathering / Family Play Room, and a rear yard area to provide for safe outdoor play at the ground level for children. The varied setback at the rear of the building also provides for a nice stepping of the building mass that helps to break up the larger walls at the rear elevation. A more adult outdoor area is provided on the roof deck above the taller portion of the building.

### **Vehicular Access**

The project proposes combining 2 existing driveways into a single vehicular access point near the center of the combined parcels. The driveway / ramp will access a two level sub-grade parking garage which was reconfigured to two levels so that mechanical parking lifts would not be required. The underground Parking Levels consists of 50,000 square feet and include 108 car parking spaces, 50 bicycle lockers, the trash enclosure, mechanical room, and vertical circulation. The parking spaces are provided in both Standard and Tandem configurations. The resident parking includes 44 tandem parking spaces, and 56 standard spaces including required ADA compatible spaces. There are also 8 guest parking spaces including required ADA spaces. The guest spaces are all located to the right side of the ramp while the resident spaces are all located to the left side of the ramp.

### **Pedestrian Access**

The project would set its building farther back from the street than the existing building at 4846 El Camino Real. The existing building comes right to the back of the sidewalk. The increased setback would create a more comfortable environment for pedestrians. The two buildings at 4846 and 4856 El Camino Real have two driveways with a combined width of about 50 feet. The project would provide one driveway with a width of about 22 feet. Thus, the exposure of pedestrians to potential conflicts with vehicles would be significantly reduced. The project includes a front door on El Camino Real for convenient access to the sidewalk.

### **Bicycle Access**

The project proposes to exceed the Santa Clara Valley Transportation Agency (VTA) bicycle parking guidelines. The guidelines specify that secure long-term bicycle parking should be provided at a ratio of one space per three units, which would require 17 bicycle parking spaces. The project proposes a secure bicycle storage room with 10 individual lockers as well as 16 bike racks. In addition there are 19 more individual bicycle lockers situated under the stairway within the sub-grade garage. This provides a total of 45 secure bicycle storage spaces. The VTA guidelines also specify that 4 short-term bicycle spaces should be provided. The project proposes four short-term spaces at a bicycle rack near the front door.

### Building Storage

The building is designed to accommodate the storage needs of the residents to the greatest extent possible. Each level of the building has a central storage area that contains individual locking storage spaces. The storage spaces are fully enclosed and have 3' access doors. In addition to these central storage spaces, storage areas were a primary focus of the unit designs especially for the larger units which may be occupied by families. Wherever possible large storage closets were included within the design of the units.

### PROJECT DESCRIPTION

This project is a multiple-family residential project at 4856 & 4846 El Camino Real. The project consists of a 50-unit, five-story building, with two levels of underground parking. The project replaces the existing Mohr Clock building and small Retail building totaling approximately 9,300 SF. The following table summarizes the project:

<b>GENERAL PLAN DESIGNATION:</b>	Commercial Thoroughfare
<b>ZONING:</b>	CT (Commercial Thoroughfare)
<b>PARCEL SIZE:</b>	0.72 acres (31,576 square feet)
<b>MATERIALS:</b>	Painted plaster cement siding, siding accents and railings, architectural metal panels, glass balconies railings, board formed concrete walls.

	Existing	Proposed	Required/Allowed
<b>SETBACKS:</b>			
Front	23' & 6'	25'	25'
Rear Grading	N/A	20'	20'
Rear 30' Height Limit	85' – 128'	40'	40'
Rear 45' Height Limit	85' – 128'	60'	100'
Right side	0 feet	4' to 9'-6"	4' Min. / 7'-6" Ave.
Left side	0 feet	5'-6" to 14'-6"	4' Min. / 7'-6" Ave.
<b>HEIGHT:</b>			
40'-100' Zone	n/a	34'-3.75" / 57'-11.75"	30'
100' + Zone	n/a	57'-11.75"	45'
<b>PARKING:</b>	n/a	108 spaces	91 spaces (with density bonus)
<b>DENSITY:</b>	n/a	69 du / ac	38 du / ac

### AFFORDABLE HOUSING

- Lot Size:  $31,576 / 43560 = .72$  ac  
Allowable Density:  $.72$  ac x  $38$  du/ac =  $27.36 = 28$  Units
- Affordable Housing per LAMC  
 $27$  du x  $10\%$  BMR =  $2.71 = 3$  BMR

**DENSITY BONUS**

- Affordable Units: 8 units
- 2 moderate / 6 very low: (6 very low / 28 = 21.4 % = 75.25 % Density Bonus)
- 28 units x 75.25 % = 50 units
- Proposed Building Configuration:
  - (9) 1 bedroom units 780 sf - 900 sf
  - (30) 2 bedroom units 1080 sf - 1550 sf
  - (11) 3 bedroom units 1570 sf - 2300 sf
- Proposed BMR Units:
  - (6) 1 bedroom /1 bathroom very low income
  - (1) 2 bedroom /2 bathroom moderate income
  - (1) 3 bedroom /2 bathroom moderate income

**DENSITY BONUS CONCESSIONS AND WAIVERS**

This project is providing 8 BMR units and is requesting a 75.25% Density Bonus. With 21.4% Very Low Units the project is entitled to three incentives or concession.

Incentives (15% very low = 3 incentives)

	Standard	Requested
1. Rear yard setback decrease by 20% (4 <sup>th</sup> and 5 <sup>th</sup> floors only)	100'	60'
2. Rear yard setback decrease by additional 20 % (4 <sup>th</sup> and 5 <sup>th</sup> floors only)	100'	60'
3. Height increase		
Front portion of building including increased setback area	45'	58'
Rear portion of building outside increased setback area	30'	35'

Waivers

1. Elevator Tower Height Increase	12'	17'-10.75"
2. 118 SF Roof Structure increase*	(4%) 824 SF	(4.6%) 942 SF
*Includes elevators, stairs and trash enclosure		

Parking Required per 65915(p) and LAMC 14.28.040 G2a

1 spaces per 1 Bed Unit: 9 Units x 1 spaces	9 Spaces
2 spaces per 2 Bed+ Unit: 41 Units x 2 spaces	82 Spaces
Visitor / ADA: included	0 Spaces
<b>Total:</b>	<b>91 Spaces</b>

Parking Provided

Resident	100 Spaces
Visitor / ADA:	8 Spaces
<b>Total:</b>	<b>108 Spaces</b>

**ELEVATOR TOWER INCREASE**

An elevator is required to access the Occupied Roof deck per the CBC ADA access requirements. Due to the required height of the elevator tower we have placed it towards the middle of the building. This location allows the taller tower to be hidden from street level views by the edges of the building. The requested elevator tower increase is based on the minimum height required to install the two elevators with the 8 levels of stops. There is 14'-7" of clearance required from the floor level of the highest stop to the underside of the hoist beam. The hoist beam for the elevator sits above that required clearance and below the roof of the elevator shaft. The roof structure itself is +/- 18". Elevator sections and manufacturer's cut sheets have been provide in the package on sheets A14 and A15 for reference.

July 17<sup>th</sup> 2018

Density Bonus Report  
4856 & 4846 El Camino Real  
Los Altos, CA 94022

The proposed project is a 50 Unit Multi Family residential building on a .72 acre site at 4856 and 4846 El Camino Real. The site has a General Plan designation of Thoroughfare Commercial and a Zoning designation of CT. We are requesting Incentives per Government Code 65915 and LAMC 14.28.040. The project is providing 8 BMR Units including 2 Moderate Units and 6 Very Low Units which equal 21.43% and is therefore entitled to three Incentives per LAMC 14.28.040 Table DB 4 and a Parking reduction per LAMC 14.28.040 G2a. This site has not had any dwelling units on it in the last 5 years and does not have any recorded covenant, ordinance, or law applicable to the site that restricted rents to levels affordable to very low or lower income households.

The 50 Unit building was developed based upon the January 16<sup>th</sup> 2018 combined PTC and CC meeting. With the 50 units building 8 Below Market Rate units were proposed with a density bonus of 75% based on LAMC 14.28.040 Section E-7 which allows optional density bonuses at the discretion of the city. In addition as part of the increased density 9 one bedroom units were created to provide a wider range of unit types and sizes.

#### Summary Table

APN – 170-02-027 & 170-02-029

Site Size: 31,576 / 43560 = .72 acres

General Plan: Thoroughfare Commercial

Zoning: CT Commercial Thoroughfare

General Plan Density: No Density provided in Thoroughfare Commercial

Zoning Density: 38 Units / Acre = 28 Units

Density Bonus: 75.25%

Density Bonus Units: 22 Units

Number of Units: 50 Units

Actual Density = 69.4 du/ac

Market Rate Units: 42 Units

(4) 1 Bedroom Units

(28) 2 Bedroom Units

(10) 3 bedroom Units

BMR Affordable Units: 8 Units

(6) 1 bedroom /1 bathroom very low income

(1) 2 bedroom /2 bathroom moderate income

(1) 3 bedroom /2 bathroom moderate income

Incentives (15% very low = 3 incentives)

	Standard	Requested
1. Rear yard setback decrease by 20% (4 <sup>th</sup> and 5 <sup>th</sup> floors only)	100'	60'
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\*Includes elevators, stairs and trash enclosure

Parking Required per 65915(p) and LAMC 14.28.040 G2a

1 spaces per 1 Bed Unit: 9 Units x 1 spaces	9 Spaces
2 spaces per 2 Bed+ Unit: 41 Units x 2 spaces	82 Spaces
Visitor / ADA: included	0 Spaces
Total:	91 Spaces

Parking Provided

Resident	100 Spaces
Visitor / ADA:	8 Spaces
Total:	108 Spaces

## Density Bonus Analysis

The original proposal for this building was a 38-unit project with five (5) BMR units offered at very-low and (1) unit at moderate income level. Those 5 BMR units were contained in 6,422 net square feet. We asked for two incentives; a 20 ft setback encroachment and increased height. That project was designed but never submitted.

In the new proposal, the building is a 50-unit project with eight (8) BMR units offered, (6) units at very-low and (2) units at moderate income levels. The total size of the proposed 8 BMR units is now 7,575 net square feet. We asked for three incentives; a height increase/same as on the 38 units, the original 20% (20 ft) setback encroachment/same as on the 38 units and additional 20% (20 ft) setback encroachment as our 3<sup>rd</sup> incentive. The combination of the three incentives is what enables the density required to obtain the new building size and BMR units.

That third incentive (20% encroachment on rear set back- On Menu) is essential as it adds 3200 gross square feet (including circulation which is about 8% or 320 SF) to the building so we are left with about 3000 SF net building increase from 38 to 50 units. Of the 3000 SF, we're using 1153 square feet to satisfy the 8 BMR units. That leaves the developer with a gain of 1847 net square feet of market rate space in the larger building.

The gross cost of the proposed BMR units in the building is \$840 per square foot for the net living area. That adds up to approximately \$6.36M for the eight (8) BMR units. This includes all hard construction costs, soft costs, and land valuation when sold to the eventual builder.

All those values are in 2018 dollars and not forecast to 2020 which is when these units are expected to actually sell. In fact, given the rapid rise in construction costs, since this project will not start construction until 2019, it is reasonable to expect these costs to be at least 6-8% higher, potentially more.

The distribution of BMR units is proposed to be six (6) very-low income units as rentals and two (2) moderate income units for sale. The full value of the units, were they to be all sold, is shown in the table below. The two moderate units (one 3BR/2BA and one 2BR/2BA) will be sold which results in a cost recovery of \$738,000. This results in a loss of \$1.232M

The remaining six 1BR/1BA units will be rented for a period of 55 years. Using the table below, we show the baseline property value to be \$4,338M (for property tax purposes) for those units. A 1BR unit current rents for \$977 but since rents would not start until at least 2020, we're adjusting that to start at \$1016. We are not adding additional costs for financing.

Using those starting values, the rental units generate a net income of \$3.515M over the course of 55 years. This results in a net loss on the rental units of \$872,000. When combined with the loss from the sale of the moderate BMR units, the net project loss is approximately \$2.1M not including about \$600,000 in construction costs (garage configuration and additional elevator) plus \$110,000 in design changes (from 35 to 50 units) as detailed below bringing the total loss to about \$2.8M.

TOTAL BMR COST					
	Units	Net SF	\$/Unit	\$/SF	Total
Gross Cost of BMR Units			\$723,284	\$838	\$6,351,591
(Less) Low Income Unit Sales	6	5,224	(\$138,000)	(\$132)	(\$828,000)
(Less) Mod Income Unit Sales	2	2,351	(\$369,000)	(\$785)	(\$738,000)
<b>Net Cost of BMR Units</b>	<b>8</b>	<b>7,575</b>	<b>\$598,199</b>	<b>\$632</b>	<b>\$4,785,591</b>

In order to achieve the proposed overall unit and BMR density, we had to substantially reduce unit sizes since on the 38 unit option we did not have 1/1's while with the 50 unit option we have 9 units as 1/1's. The additional unit count has pushed the design of the building to go from one story underground garage to two story underground garage, but eliminating mechanical parking. Construction delta between the two designs has an estimated increase to about \$450,000 considering going deeper and additional waterproofing based on the shallow water table. It has also forced the addition of a second elevator, at a cost of \$150,000. An estimated construction cost increase of about \$600,000 by building the 50 unit building. Approximately \$110,000 was spent for all design changes (architectural and civil) going from an already designed 35 unit building plus updating all reports (air quality, traffic, noise and vibration) to a 50 unit building.

The BMR allocation difference between the older 38-unit project and the current 50-unit project is a net gain of 1,153 NSF (net square feet).

That is calculated by using the following figures:

7,575 (current BMR square footage)

6,422 (old BMR square footage)

1,153 (overall increase in BMR square footage)

While the value of the new BMR square feet is substantial, the overall net square feet gained is 1,153 NSF which adds approximately \$1.6M in market-rate project gains (in 2018 dollars). If we were to forecast moderate market value growth in the next two years, that gain makes the creation of the additional BMR units well worth the effort. The distribution of units and their cost is broken down in the table below.

	Unit Sq Ft	Land Sq Ft	Config	
Unit 110	1,569	643.29	3BR / 2BA	Moderate
Unit 101	1,308	536.28	2BR / 2BA	Moderate
Unit 109	785	321.85	1BR / 1BA	Very Low
Unit 207	782	320.62	1BR / 1BA	Very Low
Unit 209	785	321.85	1BR / 1BA	Very Low
Unit 302	782	320.62	1BR / 1BA	Very Low
Unit 402	782	320.62	1BR / 1BA	Very Low
Unit 502	782	320.62	1BR / 1BA	Very Low
<b>Gross SF</b>	7,575	3,106		
<b>V Low-Income SF</b>	5,224			
<b>Mod-Income SF</b>	2,351			
<b>Lot Size</b>	31,576			
<b>Gross Building SF</b>	69,134			
<b>Lot to Bldg Ratio</b>	0.46 SF			
<b>Gross Build \$/SF</b>	\$478.13			
<b>Gross Land \$/SF</b>	\$361.62			
<b>Total Cost</b>	\$839.74			

Conclusion: The mix of units and overall square footage offered is a substantial portion of the overall building size. The cost of land and construction is high compared to the revenue gained by affordable housing compensation. The resulting profit, while moderate, is worth the effort.

## **NEW DEVELOPMENT CLIMATE ACTION PLAN CHECKLIST**

**(Altos One - 4846&4856 El Camino Real, Los Altos, 94022)**

### **1.1 Improve Non-Motorized Transportation**

Project Compliance: N/A

Reasoning: Applies only to non-residential projects Altos One is residential.

### **1.2 Expand Transit and Commute Options**

Project Compliance: N/A

Reasoning: Applies only to non-residential projects Altos One is residential.

### **1.3 Provide Alternative-Fuel Vehicle Infrastructure**

Project Compliance: YES

Description of compliance: EV Pre-wire is provided for at 25% of spaces

### **2.2 Increase Energy Efficiency**

#### **Install higher efficiency appliances**

Project Compliance: YES

Description of compliance: The project will include high efficiency appliances

#### **Install high efficiency outdoor lights**

Project Compliance: YES

Description of compliance: The project will include high efficiency lighting.

#### **Obtain third party heating, ventilating and air conditioning (HVAC) commissioning**

Project Compliance: YES

Description of compliance: HVAC Commissioning is not required for residential projects.

### **3.1 Reduce and Divert Waste**

#### **Develop and implement a Construction and Demolition (C&D) waste plan**

**Project Compliance: YES**

Description of compliance: A Construction and Demolition (C&D) waste plan will be developed and implemented prior to commencing demolition of existing structures.

### **3.2 Conserve Water**

Reduce turf area and increase native plant landscaping

Project Compliance: YES

Description of compliance: The project has been designed with no turf/lawn and has incorporated primarily all low and medium water-use Mediterranean climate adaptive plant species appropriate for Los Altos. The water conserving plant palette shall comply with the MWELO requirements (Model Water Efficient Landscape Ordinance).



### **3.3 Use Carbon Efficient Construction Equipment**

Implement applicable Bay Area Air Quality Management District construction site and equipment best practices. Tables 8-1 and 8-2 in the District's Air Quality Guidelines (see separate handout)

Project Compliance: YES

Description of compliance: Mitigation Measure 1 identified in the Altos One Air Quality report provided to city (page 7) implement applicable Bay Area Air Quality Management District (BAAQMD) construction site and equipment best practices. Mitigation Measure 3 (page 13) implements additional measures.

### **4.1 Sustain a Green Infrastructure System and Sequester Carbon**

#### **Create or restore vegetative common space.**

Project Compliance: YES

Description of compliance: The landscape design includes common area social spaces with preservation existing mature redwood trees and new tree and shrub planting to assist with storing carbon. Common spaces are located at the ground level as well as incorporated into architecture as a roof deck landscaped amenity.

#### **Establish a carbon sequestration project or similar off-site strategy**

Project Compliance: N/A

Description of compliance: The GHG emissions associated with the project are insignificant; therefore, an off-site mitigation strategy or carbon sequestration project is not required. In addition, the project is replacing an existing source of GHG emissions. As noted, the project landscaping would maintain mature vegetation and new tree and shrub planting to assist with carbon sequestration. The project emissions are less than significant because the project would have emissions below the levels that BAAQMD identified in their Air Quality Guidelines as requiring mitigation.

#### **Plant at least one well-placed shade tree per dwelling unit.**

Project Compliance: YES

Description of compliance: Although the size project site and the higher density housing architecture does not allow one shade tree per dwelling unit, the landscape design does provide shade trees wherever possible to help mitigate the urban heat island effect. The landscape design has incorporates 19 trees project-wide taking advantage of appropriate planting sites for root growth and canopy size.



**LEA & BRAZE ENGINEERING, INC.**  
CIVIL ENGINEERS | LAND SURVEYORS

**Main Office:**  
2495 Industrial Pkwy. West  
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Ph: 510.887.4086  
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August 15, 2018

**Sacramento Region:**  
3017 Douglas Blvd., Ste. 300  
Roseville, CA 95661  
Ph: 916.966.1338  
Fx: 916.797.7363

Building Department – City of Los Altos  
1 North San Antonio Rd.  
Los Altos, Ca 94022  
Phn-650-947-2752  
Fax-650-947-2734

Subject: **Altos One**  
**4846 & 4856 El Camino Real**  
**Los Altos, California**  
**APN: 17-02-029**  
**Job No. 2160433 SU**

To the Department:

Please consider this letter my certification that on August 14, 2018 we field verified the horizontal location and elevation of the erected story poles on the subject site and found the locations and heights of the Story Poles to agree with the story pole plan, A1, by SDG Architects, Inc.

Please call me with any questions.

Sincerely,



Alexander Abaya  
Land Surveyor

CC: Mircea  
Email: [mircea27v@gmail.com](mailto:mircea27v@gmail.com)

**Altos One – Story Poles Partial Installation Exception Request**

We are asking for an exception request due to:

**Exception 1:** Safety concerns

**Exception 2:** Impairment of the use of the existing structures and existing businesses

4846 ECR exception requested

**1). Shifting/Of Setting story pole location 9 and 10 by appx 10-12 ft of the two Staircase Tower Poles (2) due to Exception 1 & 2**

Staircase Tower poles (4) would be placed in the ADA parking space and ADA ramp to the existing building, rendering the existing building non-compliant with ADA regulations. The parking space and ramp are located in front of the rear door of Unit A, thereby creating a safety concern for tenants entering and exiting the building.

Placement of these Story Poles takes over an additional 2 parking stalls affecting a total of 3 parking spaces (from a total of 9 stalls) on an already busy parking lot with two tenants. The poles, along with the orange webbing, will also block the fire escape and rear door of the tenant in Unit A, thereby making business operations infeasible. The story pole securing wires will span a minimum of 20 feet from the base of the pole at 120 degrees separation.

**Resolution:** We will install two Staircase Tower Poles No. 9 and 10 (appx 72 ft each) on top of the one story building/4846 ECR representing the back side of the staircase tower height. This location will be shifted by appx 10 ft from where the new staircase tower will be in the future but it is a good representation of the area/proximity and has the exact height.

**APPROVED  
PLANNING DIVISION**

FILE NO. \_\_\_\_\_

PERMIT NO. \_\_\_\_\_

BY ZD DATE 5/23/18

- FLAG ROPE SHALL BE PROVIDED BETWEEN POLES 4 AND 5.

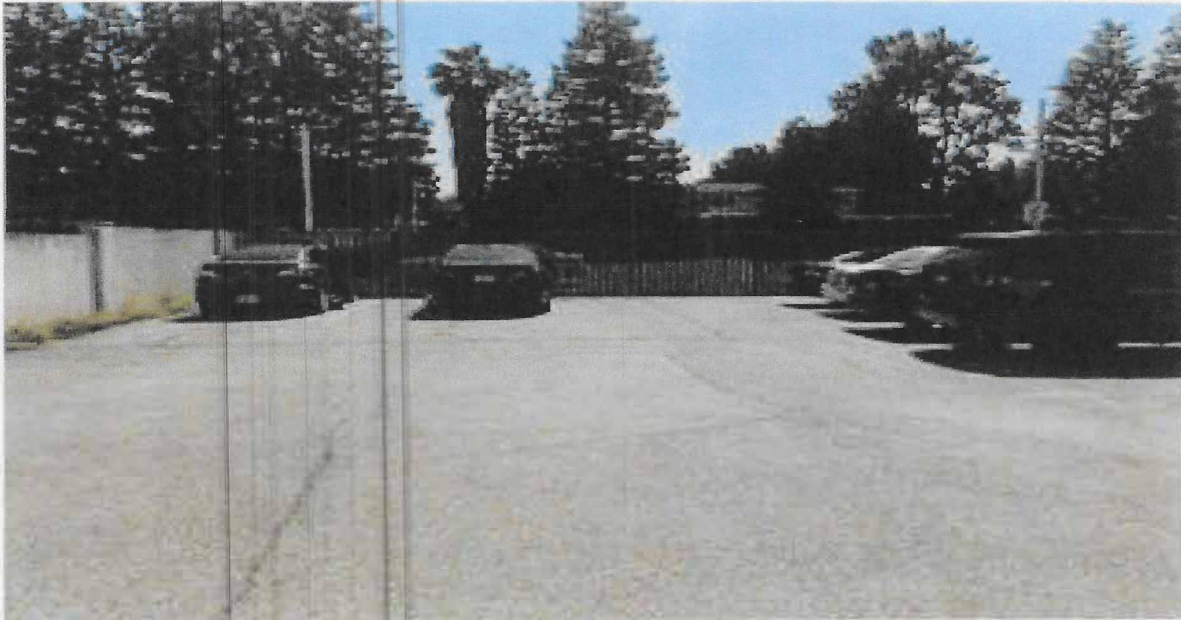
4856 ECR exception requested

Building tenants include a medical treatment facility that has a high volume of disabled (blind or in wheelchair) patients and also a learning tutoring center with frequent traffic of students. See the traffic report below for details.

**1. No installation of Elevator Tower Poles (4) due to Exception 1**

Elevator Tower has 2 poles (76 ft in height) on a tile steep roof which represents a safety concern for installation.

**Resolution:** As requested by city council story pole consultant to provide an email to planning explaining the safety reasons why those 76 ft story poles cannot be installed on a 2<sup>nd</sup> story slope roof.

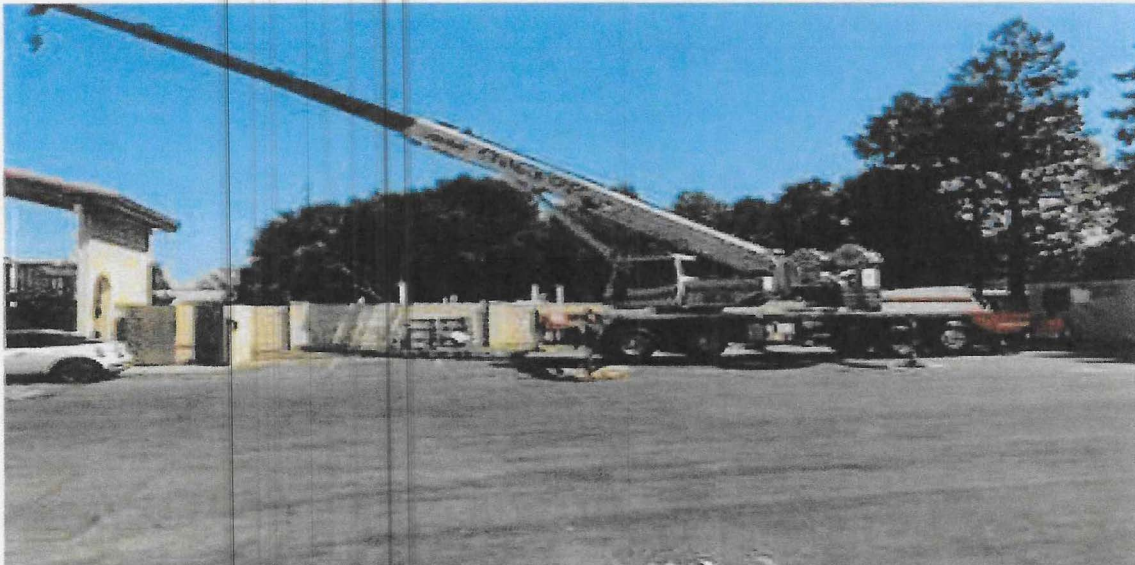




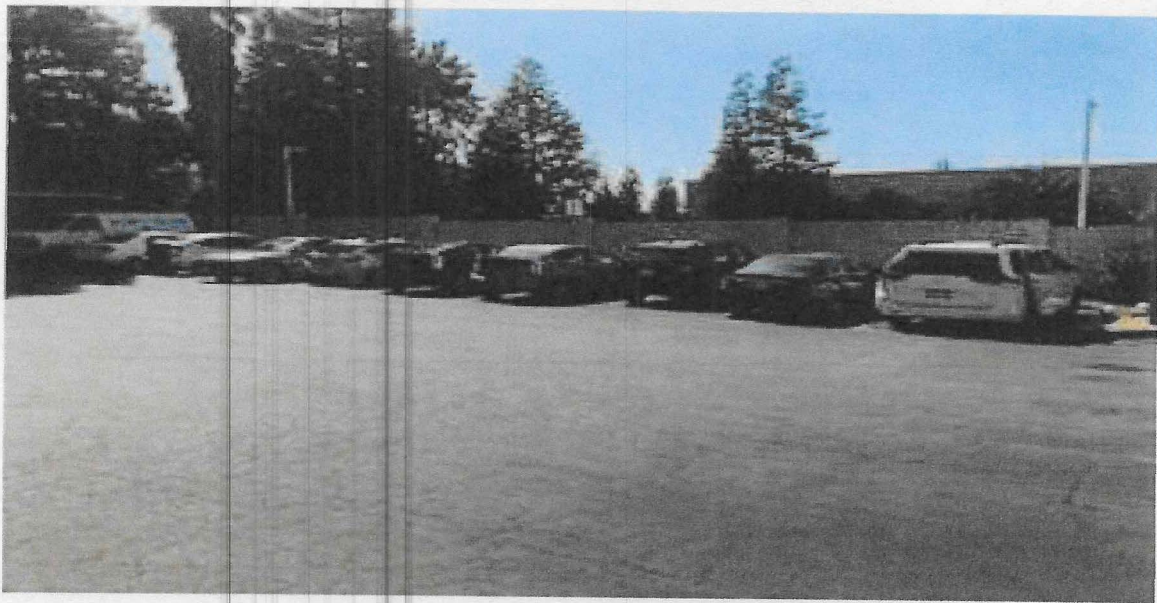
4846 Parking Area

2. **No String between Story Poles 5 and 4** due to the crane operation for the next 6 months supporting 4880 ECR development.

Any string at 58-60 ft will represent a safety issue that if the boom hits the string it can pull all poles down in the parking area since all poles are connected with strings.



4856 ECR Parking area

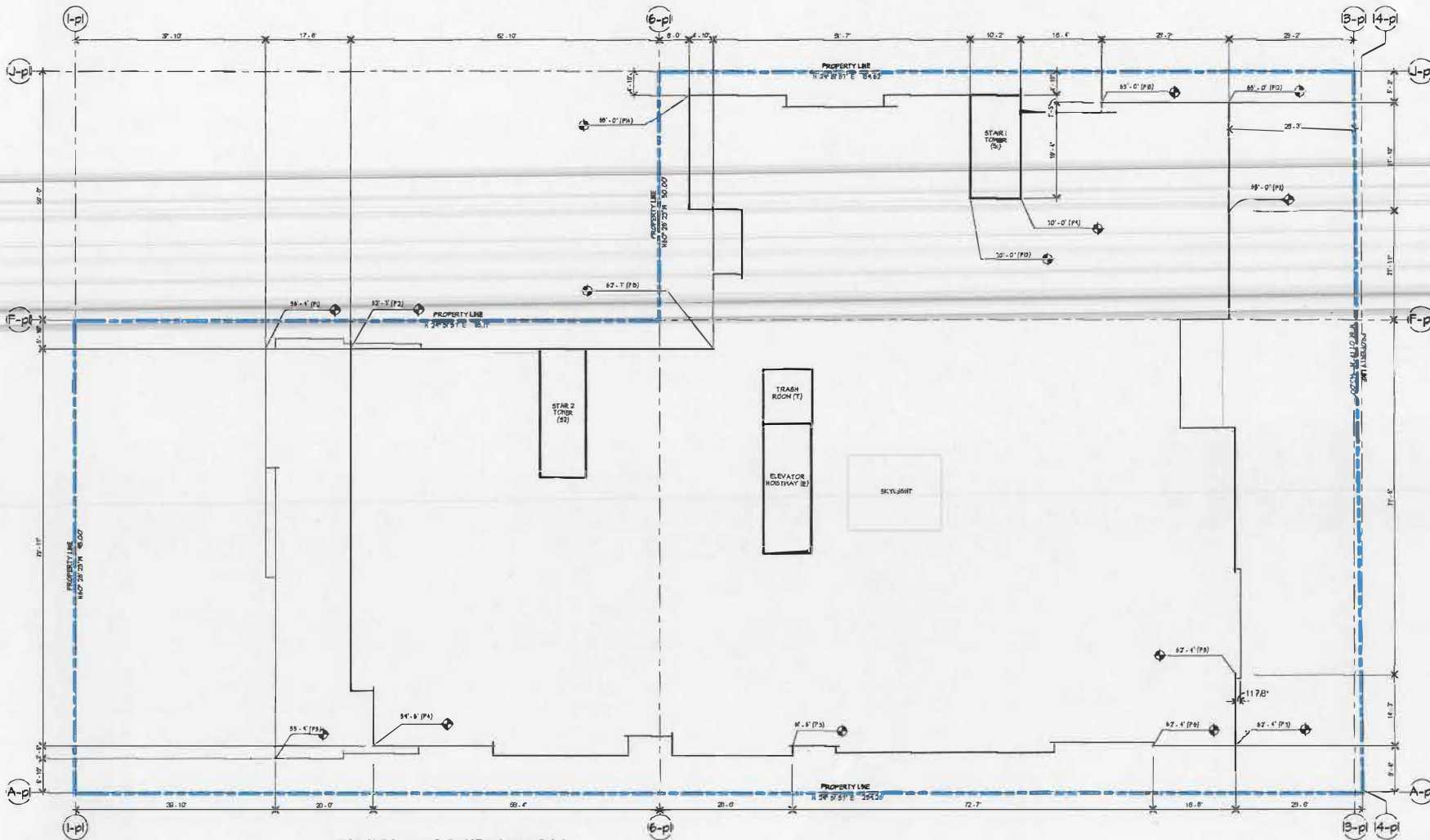


4856 ECR Parking area

**NOTE:** City Council allowed developer at the May 8<sup>th</sup> meeting small adjustments on the location of story poles 1,2, 3, 4, 14 and 15 if they impede with parking operations and circulation through the parking area. We believe that those adjustments will be appx 2-3 ft off sets and will be determined by the story pole consultant during installation.








**LEGEND:**  
 STORY POLE HEIGHT / TOP OF PARAPET  
 (P) STORY POLE LOCATION

**STORY POLES @ PENTHOUSE ROOF**  
 SCALE: 1" = 10'-0"

**ALTOS ONE**  
 4646 & 4626 El Camino Real  
 Los Altos, CA 94002  
 June 20, 2016

**LUX ONE LLC**  
 4850 El Camino Real Suite 100  
 Los Altos, CA 94002

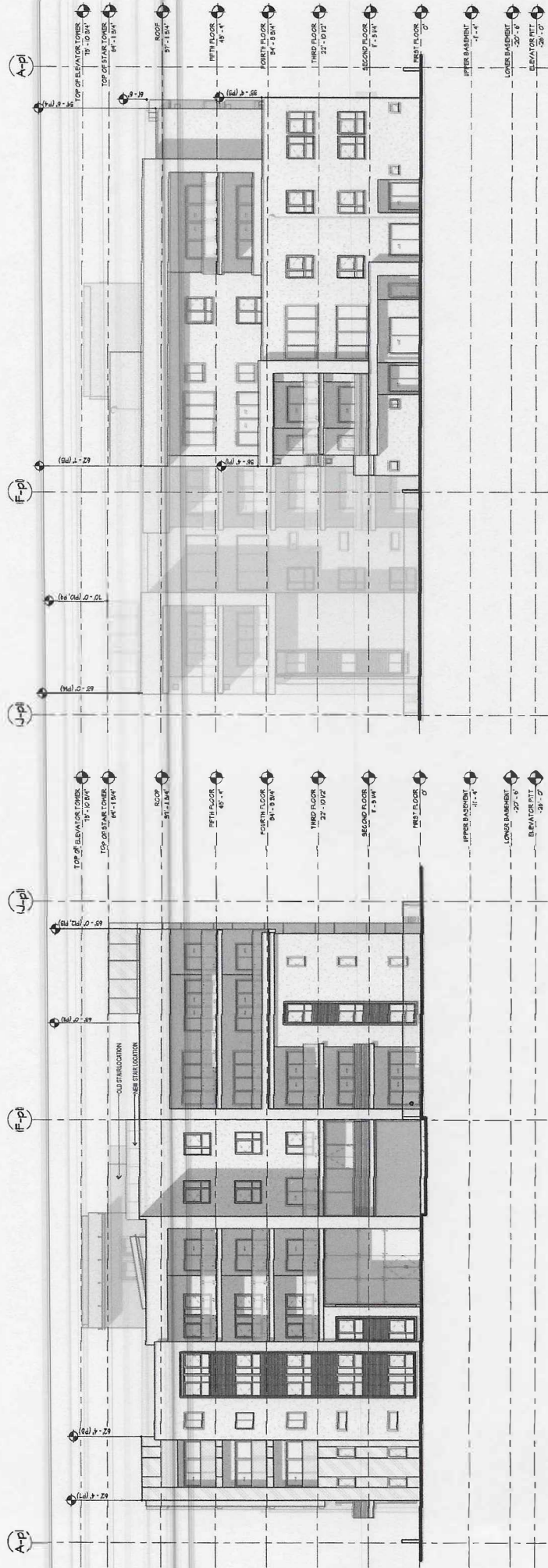
**\_A1**  
**STORY POLES**

3361 Walnut Blvd. Ste. 120, Brentwood, CA 94515  
 925.834.7000  
 www.stausdesign.com  
  
 SDG Architects, Inc.

**LEGEND:**

TOP OF ELEVATOR  
TOP OF FINISH

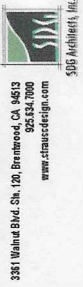
(PS) STORY POLE LOCATION



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

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

**EAST AND WEST ELEVATIONS**  
\_A2



3361 Walnut Blvd. Ste. 120, Brentwood, CA 94515  
510.433.8333  
www.sdbarchitects.com

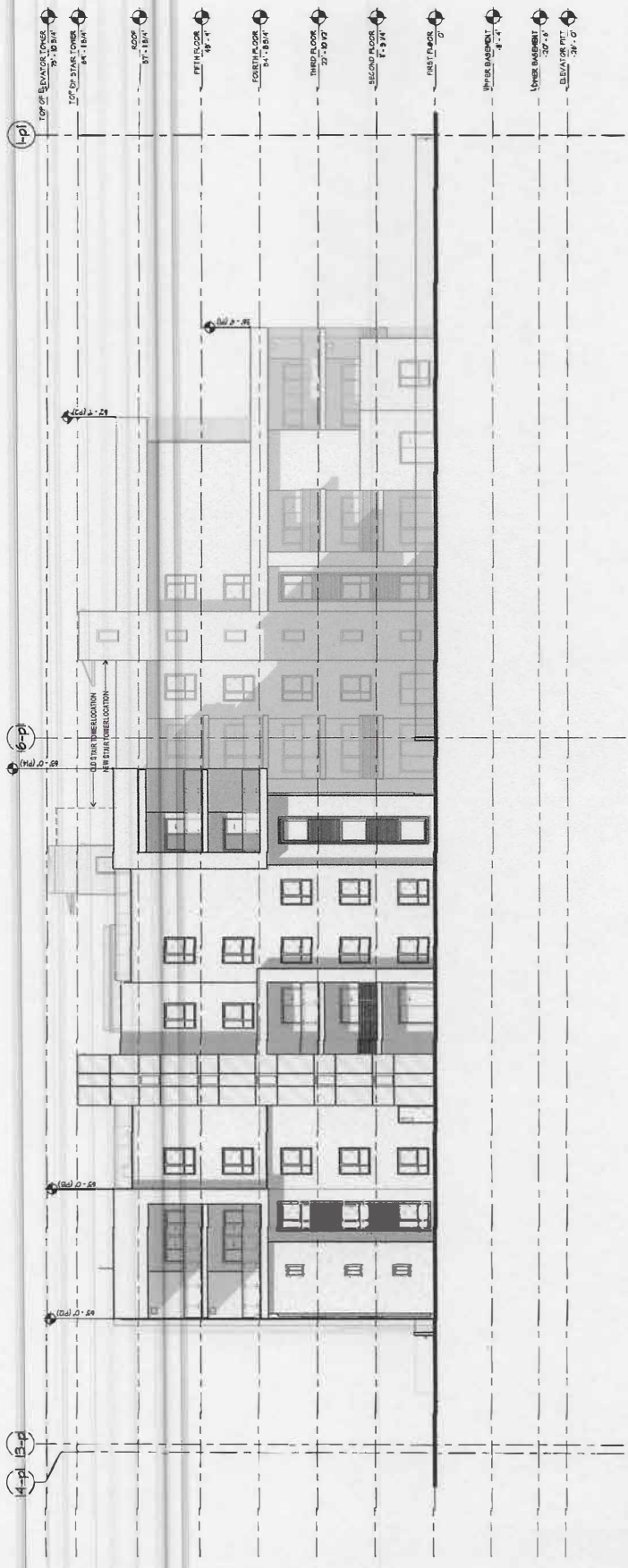
SDB Architects, Inc.

**ALTOS ONE**  
655 E. 65th St. El Cerrito del Norte  
El Cerrito del Norte, CA 94530  
June 22, 2018

**LUX ONE LLC**  
655 E. El Cerrito del Norte, Suite 100  
El Cerrito del Norte, CA 94530

LEGEND:

- STORY FLOOR HEIGHT / TOP OF FINISH FLOOR
- (FP) STORY FLOOR LOCATION



- TOP OF FINISH FLOOR 75'-10 1/2"
- TOP OF FINISH FLOOR 84'-11 1/2"
- ROOF 97'-11 1/2"
- FIFTH FLOOR 19'-4"
- FOURTH FLOOR 24'-9 1/2"
- THIRD FLOOR 27'-10 1/2"
- SECOND FLOOR 37'-9 1/2"
- FIRST FLOOR 0"
- THREE BASEMENT 8'-4"
- TWO BASEMENT 20'-9"
- BASEMENT BELOW 28'-0"

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

-A3  
NORTH ELEVATION

3381 Walnut Blvd, Ste. 170, Brentwood, CA 94815  
925.234.7000  
www.streetscene.org.com

ALTON ONE  
4850 & 4855 El Camino Pkwy  
Los Altos, CA 94022  
June 21, 2016

LUX ONE LLC  
655 El Camino Real, Suite 100  
Los Altos, CA 94022



Streetscene Architecture, Inc.

**LEGEND:**

- TOP OF ELEVATOR TOWER
- TOP OF STAIR TOWER
- (FF) STOREY POSITION



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

**SOUTH ELEVATION**  
\_A4



3381 Walnut Blvd. Ste. 100, Brentwood, CA 94515  
Tel: 925.534.9300  
www.sixarchitecture.com  
SIX Architecture, Inc.

**ALTOS ONE**

455 El Camino Real  
Los Altos, CA 94022  
June 25, 2018

**LUX ONE LLC**

455 El Camino Real Suite 100  
Los Altos, CA 94022

**MINUTES OF A STUDY SESSION OF THE PLANNING COMMISSION OF THE CITY OF LOS ALTOS, HELD ON THURSDAY, APRIL 19, 2018 BEGINNING AT 6:15 P.M. AT LOS ALTOS CITY HALL, ONE NORTH SAN ANTONIO ROAD, LOS ALTOS, CALIFORNIA**

## ESTABLISH QUORUM

PRESENT: Chair Bressack, Commissioners Enander, McTighe, and Meadows

ABSENT: Vice Chair Samek and Commissioner Bodner

STAFF: Community Development Director Biggs and Planning Services Manager Dahl

## ITEMS FOR CONSIDERATION/ACTION

### 1. 4846 – 4856 El Camino Real

Design review for a new five-story multi-family residential project with 50 units and two levels of underground parking. *Project Planner: Dahl*

Planning Services Manager Dahl introduced the project and gave a staff presentation.

Project architect Jeff Potts presented the project and provided an overview of the proposed design and exterior materials.

#### Public Comment

Resident Arnie Cameron expressed support for the project design and additional affordable housing that would be provided.

Non-resident and local businessman Greg Bock expressed support of the project design and additional affordable housing that would be provided.

The Commission discussed the project and offered the following comments:

- Commissioner McTighe:
  - Recommended linking the pictures on page A-04 of the project plans to the proposed building;
  - Show access to the units on page A2 of the project plans;
  - Provide additional information about the programming for the gathering/family playroom on page A3;
  - The number of storage rooms provided on each floor should match the number of units on that floor;
  - Consider reducing the amount of stucco used on the exterior and clearly identify all areas where stucco siding is proposed; and
  - Update the proposed landscaping between the project and 4880 El Camino Real to ensure that it can survive in a shaded environment.
  
- Commissioner Meadows:
  - Noted that increased shadowing and lower privacy thresholds are ok in urban environments such as the El Camino Real corridor;
  - Make sure plant selections along left side property line can survive in the shade;

- Overall great design elements, but need a better understanding of the materials and how they will work together, because they are not adequately conveyed in the elevations;
  - Use a better or more appropriate mix of materials;
  - The roof deck and features are a plus and a well-designed space;
  - Make sure the tandem parking spaces are assigned to the same unit;
  - Appreciates the light well in center of building; and
  - Storage on each floor is a plus.
- Commissioner Enander:
    - The size of the units should be reduced so that it is more “affordable by design;”
    - The building is a box and needs better representation;
    - The windows should be recessed;
    - Concern with the amount and color of the stucco on the lower right corner at the front elevation;
    - Concern with landscaping and the lighting between the buildings and wants a landscape consultant to review the plan;
    - The project should receive an external design review before coming back to the Planning Commission;
    - The 3D renderings need to be from a street level/pedestrian eye level perspective; and
    - Make this distinct a “Los Altos” building.
- Chair Bressack:
    - Large volume, but very well-articulated with a conscious effort to break-up the building in 3D so it won’t read like a box;
    - Landscaping along left side property line needs to be shade tolerant;
    - Comfortable with as much plants as possible within the limits of the site;
    - The light well in the building center is a plus and allows orientation within the building;
    - Street level view is important to better understand the building;
    - Review sheet A-04 and confirm finishes and trims on the building;
    - Add expansion joints on walls with stucco to help articulate the building and preserve/maintain the stucco;
    - Concern with how materials end/transition; the plans should provide additional details about how materials transition and how top edges are capped;
    - Conceptually very nice in the break-up of materials and making of human scale;
    - Consider alternative colors to create a bit more action in the building; and
    - Design is rich modern and woody, but with a residential scale.

## **ADJOURNMENT**

Chair Bressack adjourned the meeting at 7:15 P.M.

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Jon Biggs  
Community Development Director

MINUTES OF THE COMPLETE STREETS COMMISSION (FORMERLY THE BICYCLE AND PEDESTRIAN ADVISORY COMMISSION) OF THE CITY OF LOS ALTOS, HELD ON WEDNESDAY, MAY 23, 2018 AT 7:00 P.M. AT THE LOS ALTOS CITY HALL-COMMUNITY CHAMBERS, ONE NORTH SAN ANTONIO ROAD, LOS ALTOS, CALIFORNIA

PRESENT: Suzanne Ambiel (Vice-Chair), Stacy Banerjee, Wes Brinsfield, Jerry Chester, Paul Van Hoorickx, Randy Kriegh, Nadim Maluf (Chair), Susanna Chan (Staff Liaison), Aruna Bodduna (Staff Liaison)

ABSENT: None

## PUBLIC COMMENTS

None.

## ITEMS FOR CONSIDERATION/ACTION

1. Minutes

Upon a motion by Commissioner Hoorickx, seconded by Commissioner Maluf, the Commission approved the minutes of regular meeting on April 25, 2018, by the following vote: AYES: 6 NOES: 0. ABSTAIN: Brinsfield. ABSENT: None. Passed 6-0

Commissioner Banerjee amended minutes of Special Meeting on May 9, 2018 under Commissioner's report to say, "parent group is planning to try to create a route map for CMS/Cupertino Middle School (but not West Valley Elementary), in coordination with affected jurisdiction staff and CUSD". Upon a motion by Wes Brinsfield, seconded by Paul Van Hoorickx, the Commission approved the minutes of Special meeting on May 9, 2018, as amended, by the following vote: AYES: 6 NOES: 0. ABSTAIN: Maluf. ABSENT: None. Passed 6-0

2. Election

Staff Liaison Bodduna-Call for Nominations

- Chair
  - Maluf-accepted
  - Ambiel-accepted
  - Maluf-elected and approved as Chair by a vote of 7-0
- Vice Chair
  - Ambiel-accepted
  - Ambiel-elected and approved as Vice Chair by vote of 7-0

Newly elected roles were effective immediately with Chair Maluf taking over proceedings

3. VTA Bicycle Pedestrian Advisory Committee Representative

Vice-Chair Ambiel nominated Commissioner Brinsfield and he accepted the nomination. Commission recommended Commissioner Brinsfield to remain the Valley Transportation Authority Bicycle/Pedestrian Representative for the City of Los Altos. Passed 6-0.

4. New Multiple-Family Residential Building – 4856 El Camino Real

Zach Dahl, Planning Services Manager presented this item. The proposed project is located at 4846 & 4856 El Camino Real. This is a five-story, 50-unit residential condo project with two levels of underground parking. The Complete Streets Commission reviews aspects of the project related to pedestrian, bicycle, traffic circulation and parking and provides recommendation to the Planning Commission and the City Council.

Questions/Comments:

Commission members asked questions below and Zach Dahl answered their questions:

- City requirements for pedestrian warning signs at the driveway entrance on the street - no specific requirements, there is enough clearance/visibility on either side of the driveway; garage entrance is setback 25 feet.
- On-street level parking, if any? State dictates parking standards and the current project meets these requirements – one loading space and 4.5 spaces along El Camino.
- General Plan and CEQA thresholds for traffic analysis; questions on trip generation methodology – Per City’s General Plan, if a proposed project generates 50 net new daily trips, it triggers a full traffic impact analysis (TIA); Valley Transportation Authority (VTA) guidelines state projects that generate more than 100 net new trips require full TIA. Project trip generation is based on the national standard practice, i.e., using Institute of Transportation Engineer’s (ITE) manual.
- City standards for tandem parking and if any other projects in the City implement such parking; are tandem spots sold together? Regular parking spaces are 9’x18’ and tandem spaces are double the length, i.e. 9’x36’. Other residential projects (single or multi-family) and some office projects have tandem parking. Tandem spots are generally sold together.
- Trash pick-up plan and coordination with the management company (Mission Trail)
- Height of the garage and if emergency vehicles can access the garage – height of level one is 10’, lower in level two.
- Bicycle clearance in the elevators, and how many bikes can be accommodated in the elevator at a time – there is enough clearance in the elevators to accommodate bikes, two bikes can fit in the elevator at a time.
- Is spill over parking anticipated with this project – based on the trip generation estimates, this is not anticipated.
- Lighting near bike parking in the lower level and on-street bike racks – there is lighting near the bike racks in front of the building and in garage.
- 20% ramp grade could pose unsafe situation for bike access, is there landing/flat area and what is alternate bike access – elevator is anticipated bike access.
- What is the balcony size and will there be restriction on bike storage in the balconies? No covenant to restrict such usage; each unit also has storage unit that could be used for bike parking.
- Sidewalk width along El Camino, if the curb and gutter will be replaced and will the sidewalk furniture be replaced – sidewalk along El Camino is approximately 8 feet wide; curb and gutter will be replaced; where possible sidewalk furniture will be preserved, if impacted will be replaced.
- Will City of Mountain View review this project?
- Any estimate on school trips,
- Restriction of skateboarders using the parking entrance ramp (20% grade)

Project applicant further clarified:

- Garage height: first level is 10’ high, will confirm if 8.4’ height on second level provides enough clearance for tow trucks



- Restriction of skateboarders: requested CSC suggestions on this
- Lighting: current plans are not at that details, however, project will comply with the code requirements
- Garage floor will have textured surface
- Elevators can fit 2 bikes; elevators designed to accommodate ambulance stretchers
- Bikes to use elevators to access bike racks; bike parking in balconies – HOA will control this not the developers; project exceeds VTA's bike parking requirements; some units have storage inside the unit for bike storage.
- Potential buyers: age group 36-47 (60%), 60+ (20%), 25-35 (10%)
- Fire department reviewed the plan
- Trash pickup- received letter from Mission Trail agreeing to the trash pick-up area

Discussion: Commissioners generally supportive, noting that the project meets the General Plan guidelines and requirements. Commissioners said City needs to look into cumulative conditions traffic analysis. Were also concerned about increased traffic onto nearby side streets and potential parking spill over on to nearby residential streets, increase of school traffic onto streets like Jordan and potential impacts of spill over parking on this street creating unsafe path for school kids; Commissioners were also concerned that bike parking estimates could be under estimated although it meets the requirements. Suggested City need to be aggressive in planning and preparing for upcoming projects.

Upon motion by Commissioner Brinsfield, seconded by Commissioner Hoorikx, commission recommended approval of this project to Planning Commission.

Passed 7-0.

#### 5. Stop Sign Analysis Study

Staff introduced traffic consultant Jaime Rodriguez from Traffic Patterns who conducted the stop sign analysis study. The locations for stop sign analysis in Downtown area were requests from Council Members and other locations were resident requests. Based on the study, all-way stop signs are warranted at Main/2<sup>nd</sup> and Main/3<sup>rd</sup> intersections. All the other studied intersections did not meet the warrant criteria.

#### Questions/Comments:

Commission members asked questions below and Staff and Consultant answered their questions:

- Is stop sign a traffic calming measure – No, it is a traffic control measure.
- What is the source of accident data – Accident data was provided by Los Altos Police Department. This is more current than the SWIRTS data.
- Verify data presented for Miramonte/A Street intersection – confirmed data in the report was incorrect and will modify to reflect accurate data. Revised report has been made available on the commission website after the meeting. This intersection still does not meet the warrant criteria.
- Does accident data include pedestrian and bicycle collision records – Yes
- Would traffic detour onto other streets to avoid the new all-way stop signs – Consultant conducted microsimulation analysis that shows enough capacity to accommodate queuing.

**Public Comments:**

Resident Jim Wing asked City to consider pedestrian scramble phase for Main/1<sup>st</sup> intersection in the simulation analysis. This location is not safe for peds and bikes. Supports mid-block crosswalk between State and 3<sup>rd</sup>. Doesn't encourage lot of additional signs.

Los Altos Village Association representative Scott Hunter supports the stops signs at Main/2<sup>nd</sup> and Main/3<sup>rd</sup>. Concerns about installing too many signs.

Discussion: Commissioner Hoorickx supports stop sign recommendation. Vice-chair Ambiel supports stop sign recommendation. Asked staff to consider Downtown streetscape. Commissioner Banerjee supports the stop sign recommendation, piano keys at Main/State intersection, however said that Downtown streetscape should be considered before installing new signs or pavement striping. Commissioner Chester supports stop sign recommendation, but not too much signage in Downtown area. Commissioner Kreigh supports study recommendations and supports crosswalk enhancements. Commissioner Brinsfield does not favor the stop sign in Downtown, concerned with noise & air pollution from stopped cars, does not favor too much signage or pavement striping. Chair Maluf agreed with Commissioner Brinsfield, does not favor stop signs in Downtown, may diver traffic onto other streets. Suggested revisiting City's Stop Sign Policy.

## INFORMATIONAL ITEMS

### 6. Monthly Staff Report

Staff reported out on the following items:

- Crosswalk & Intersection improvements Safe Routes to School projects is out for construction bid and bid opening of June 20, 2018
- Staff is continuing to work on the Miramonte Avenue Path project, going through the Caltrans process
- Staff is continuing to work on the El Monte Sidewalk Gap Closure project
- Contractor on board to install speed feedback sign on Arboretum at Deodara
- Contractor on board to install traffic signal battery back-up system
- Staff reached out to LASD staff to regarding San Antonio/Portola intersection improvement project
- Brown Act refresher training for May 29, 2018

## COMMISSIONERS' REPORTS AND COMMENTS

Commissioner Chester reported on Traffic Safe Communities Network (TSCN) meeting

Commissioner Banerjee- reported on the May 21, Montclair meeting where bike safety education program was discussed.

Commissioner Banerjee reported on the May 21 meeting at Montclair Elementary School regarding bike safety education program options for Montclair Elementary School; 5<sup>th</sup> grade DARE graduation at Montclair; Safe Moves scheduled for next week; City of Los Altos/CUSD collaborative meeting on June 14.

Commissioner Hoorickx reported on the City Council meeting.

### **POTENTIAL FUTURE AGENDA ITEMS**

- Portola and Jordan Dr traffic impacts
- Parking outside Downtown core
- Cumulative traffic impacts discussion
- Downtown streetscape definition
- ITE traffic analysis and localizing for Los Altos
- City's Stop Sign Policy
- Examine new ordinances and policies for development proposals, use of LOS vs VMT, and their impacts to school routes

### **ADJOURNMENT**

Chair Maluf adjourned the meeting at 10:02 P.M.



# HEXAGON TRANSPORTATION CONSULTANTS, INC.

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May 18, 2018

Mr. Zach Dahl  
City of Los Altos  
1 North San Antonio Road  
Los Altos, CA 94022

***Subject: Traffic Report for the Proposed Residential Project at 4856 & 4846  
El Camino Real, Los Altos***

Dear Mr. Dahl:

Hexagon Transportation Consultants, Inc. has completed this traffic report for the proposed residential project at 4856 & 4846 El Camino Real, Los Altos (see Figure 1). The project is proposing a total of 50 condominium units, including 9 one-bedroom units, 30 two-bedroom units, and 11 three-bedroom units. The project proposes 108 parking spaces.

The project would replace the existing buildings on two different sites: 4856 El Camino Real and 4846 El Camino Real. The existing two-story building at 4856 El Camino Real consists of Fit Theory gym (2,896 square feet) and Bay Area Hyperbaric (1,355 square feet) on the first floor and Think Tank Learning (1,400 square feet) and Pacific Rim Group Sourcing Corporation (1,667 square feet) on the second floor. The existing two unit building at 4846 El Camino Real consists of a startup, Hub Haus (1,000 square feet) in Unit B and Coppers dream pet rescue (1,000 square feet) in Unit A.

A trip generation analysis was conducted for the purpose of identifying the change in traffic due to the proposed development of the site. This study also includes an evaluation of site access and on-site circulation. Trip generation estimates were calculated for the weekday AM and PM peak hours of traffic. The AM peak hour of traffic is generally between 7:00 and 9:00 AM, and the PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

## **Project Trip Generation**

The magnitude of traffic generated by the project was estimated by multiplying the applicable trip generation rates by the size of the development. The Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 10th Edition* was used for the analysis. The trip generation rates used for the proposed development are based on the rates published for "Multi-Family Housing -- Mid-Rise" (ITE Code 221). Based on these rates, the proposed project would generate 272 daily trips with 18 trips during the AM peak hour and 22 trips during the PM peak hour (see Table 1).

The magnitude of traffic that is being generated by the existing businesses on the sites was estimated based on trip generation rates published in the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation, 10th Edition* and information provided by existing tenants. As shown in Table 1, the existing uses on site are estimated to generate 228 daily trips with 13 trips during the AM peak hour and 75 trips during the PM peak hour.

After accounting for the trips generated by the existing businesses, the proposed residential project would generate 44 new daily trips with 5 new trips in the AM peak hour and 53 fewer trips in the PM peak hour (see Table 1). Since the proposed project would add fewer than 50 new daily trips, a



full transportation impact analysis would not be required per the Los Altos General Plan's Circulation Element.

**Table 1**  
**Trip Generation Estimates for 4856 & 4846 El Camino Real, Los Altos**

Land Use	Size	Unit	Daily Rate	Daily Trips	AM Peak Hour			PM Peak Hour				
					Peak Rate	Trips In	Trips Out	Total Trips	Peak Rate	Trips In	Trips Out	Total Trips
<b><i>Proposed Project</i></b>												
Residential <sup>1</sup>	50.0	units	5.44	272	0.36	5	13	18	0.44	13	9	22
<b><i>Existing Uses</i></b>												
Gym <sup>2</sup>	2.896	ksf	24.171	70	1.31	2	2	4	3.45	6	4	10
Office <sup>3</sup>	1.667	ksf	16.19	27	1.92	2	1	3	2.45	1	3	4
Medical Office <sup>4</sup>	1.355	ksf	38.16	52	3.69	4	1	5	3.28	1	3	4
School <sup>5</sup>	1.400	ksf		56						28	28	56
R&D <sup>6</sup>	2.000	ksf	11.26	23	0.42	1	0	1	0.49	0	1	1
<b><i>Total Existing</i></b>	<b>9.318</b>	<b>ksf</b>		<b>228</b>		<b>9</b>	<b>4</b>	<b>13</b>		<b>36</b>	<b>39</b>	<b>75</b>
<b>Net Project</b>				<b>44</b>		<b>-4</b>	<b>9</b>	<b>5</b>		<b>-23</b>	<b>-30</b>	<b>-53</b>
<b>Notes:</b>												
All rates are from: Institute of Transportation Engineers, <i>Trip Generation, 10th Edition</i>												
1. Land Use Code 221: Multifamily Housing (Mid-Rise) (average rates, expressed in trips per unit)												
2. Land Use Code 492: Health/Fitness Club (average rates, expressed in trips per 1,000 s.f. gross floor area)												
3. Land Use Code 712: Small Office Building (average rates, expressed in trips per 1,000 s.f. gross floor area)												
4. Land Use Code 630: Clinic (average rates, expressed in trips per 1,000 s.f. gross floor area)												
5. Daily trips were estimated based on information provided by Think Tank Learning Facility: maximum 20 students and 8 staff members on a regular weekday; hours of operation: Noon - 8:00PM.												
6. Land Use Code 760: Research and Development Center (average rates, expressed in trips per 1,000 s.f. gross floor area)												

## Parking

The proposed project would provide 8 Below Market Rate (BMR) units, which is more than 10 percent of the total number of units. According to the Los Altos Municipal Code Ordinance 14.28.040 (C), the project would be eligible for a density bonus and would be qualified for or a parking requirement alteration. according to the Los Altos Municipal Code, Ordinance 14.28.040 (G), for any development eligible for a density bonus, upon the request of the developer, the city shall not impose a parking requirement, inclusive of handicapped and guest parking, of a development, that exceeds the following requirements:

- i. For zero to one bedroom, one onsite parking space.
- ii. For two to three bedrooms, two onsite parking spaces.
- iii. For four and more bedrooms, two and one-half parking spaces.

According to the city code, the project would require a total of 91 parking spaces (9 for one-bedroom units and 82 for two- and three-bedroom units). The site plan shows a two-level underground parking garage with 108 parking spaces. There would be 40 tandem spaces, 65



regular spaces, and 3 handicapped accessible spaces. Eight of the spaces (1 accessible) would be labeled for visitors. Thus, the parking would meet the City requirement.

## Project Site Circulation and Access

The project's site circulation and access were evaluated in accordance with generally accepted traffic engineering standards based on project plans dated May 15, 2018. The project would provide a single two-way driveway onto El Camino Real. Parking would be provided in a two-level basement garage as shown on Figures 2A and 2B. There would be a ramp off of El Camino Real leading to the parking garage and gated at the bottom of the ramp. A description of the various design elements of the site circulation and access is provided below.

**Driveway Design.** The project driveway on El Camino Real would be approximately 20 feet wide leading in and out of the basement parking garage. This width is adequate for a low-volume, two-way driveway. Because of the median on El Camino Real, only right turns in and out would be possible. The low volume of project traffic would result in only brief delays for exiting vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on El Camino Real and (2) sight distance is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway (i.e. looking left for an outbound driver from the project driveway).

**Ramp Design.** The proposed garage ramps were measured to be 21 feet wide, which meets the minimum width for a two-way drive aisle set forth by the City of Los Altos Zoning Code (14.74.200). The proposed garage ramp is shown to have a maximum slope of 20% with 10% transitions on each side. These dimensions are acceptable. Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable when ramps are covered (i.e. protected from weather) and not used for pedestrian walkways. It should be noted that the vast majority of ramp users will be residents, and thus, will quickly become accustomed to steeper grades.

**Garage Design.** On each level of the parking garage, there are two sections of parking: to the east of the ramp and to the west of the ramp. On both sides parking would be provided at 90 degrees to the main drive aisle. The drive aisles through the parking garage are shown to be 26 feet wide, which would provide sufficient room for vehicles to enter or back out of the 90-degree parking stalls, including the tandem stalls. Site access and circulation were evaluated using AutoTurn with vehicle turning movement templates for a typical AASHTO Passenger Car defined in AASHTO handbook 2011. Some examples of this type of vehicles are: 2018 Cadillac Escalade, 2018 GMC Yukon, 2018 Chevrolet Suburban, 2018 Ford Expedition, and 2018 Toyota Sequoia. The turning template check shows that large passenger vehicles would be able to access, circulate, and exit the garage without operational issues. The turning template check also indicates that vehicles would be able to access and exit from the parking spaces at the end of the drive aisle that are adjacent to the rear basement walls on each level without operational issues (see Figures 2A and 2B).

The plan shows guest parking spaces to the east of the garage ramp on the upper level of the garage. There should be signage directing guests to these parking spaces. The guest parking area has dead-end aisles, but they are very short, so motorists would be able to



see if there were any available spaces. Guests finding no available spaces would be able to exit the parking garage relatively easily. The resident parking area also has dead-end aisles, but residents would be familiar with the garage operations and would know where to find available spaces. There are some places in the upper level of the garage where visibility would be limited where the ramps and aisles turn corners. Vehicles parked on the parking spaces located opposite the entrance to the lower level ramp would need to be careful and pay attention to vehicles driving towards the ramps when backing out of those spaces. Hexagon recommends that convex mirrors be placed at all locations in the garage where visibility is limited.

**Access to El Camino Real.** Outbound at the project driveway on El Camino Real, the low volume of project traffic would result in brief delays for vehicles. Outbound vehicle queues would rarely exceed one or two vehicles. Sight distance at the project driveway would be adequate provided (1) the landscaping is low level within 10 feet of the curb face on El Camino Real (the height of the planned landscaping is not shown) and (2) it is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway (i.e. looking left for an outbound driver from the project driveway).

**Truck Access.** A 10' x 25' loading space is shown adjacent to the project driveway. This meets the City's minimum requirement for a loading area. Hexagon checked the turning radius with vehicle turning movement templates, and the results show that a small delivery truck (25 feet in length) would be able to back into and exit from the loading area. Figures 3 and 4 show potential turning paths created using AutoTurn with vehicle turning movement templates for a typical AASHTO vehicle.

Hexagon also checked other potential locations for the loading zone. Having a loading space perpendicular to El Camino Real or on the other side of the driveway would allow vehicles direct head-in access to the loading area from the right lane of El Camino Real. However, vehicles would have to back out onto El Camino Real or would block the pedestrian path. Therefore, either of these two choices are not better solutions compared to the current layout.

As an alternative option, a larger loading space could be provided either adjacent to the driveway or on the street along El Camino Real. According to the project applicant, dumpsters would be staged on-site and would be pulled out by the garbage company.

**Bike Parking.** The Valley Transportation Authority (VTA) provides guidelines for bike parking in its publication *Bike Technical Guidelines*. Class I spaces are defined as spaces that protect the entire bike and its components from theft, such as in a secure designated room or a bike locker. Class II spaces provide an opportunity to secure at least one wheel and the frame using a lock, such as bike racks. For multi-family dwelling units, VTA recommends one Class I space per three dwelling units and one Class II space per 15 dwelling units. For the proposed project, this would equate to 17 Class I spaces and 4 Class II spaces. The project site plan shows a bicycle room under the garage ramp that would accommodate 10 bicycle lockers and 16 bike racks. The project also proposes to provide 19 bike lockers under the stairs near the tandem parking areas and 4 bike racks at street level near the front entrance.

**Pedestrian Access.** The project would provide a paved walkway between the existing sidewalk on El Camino Real and the building entrance.



Generally, the design of the project site circulation and access is consistent with urban design practices. The presence of the garage ramp, short onsite drive aisles, and “confined” feel of the parking garage would serve to keep vehicles operating at very low speeds. In addition, the low traffic volume onsite, one trip every two minutes, means that the frequency of vehicle conflicts would be relatively low.

## Conclusions

This analysis produced the following conclusions:

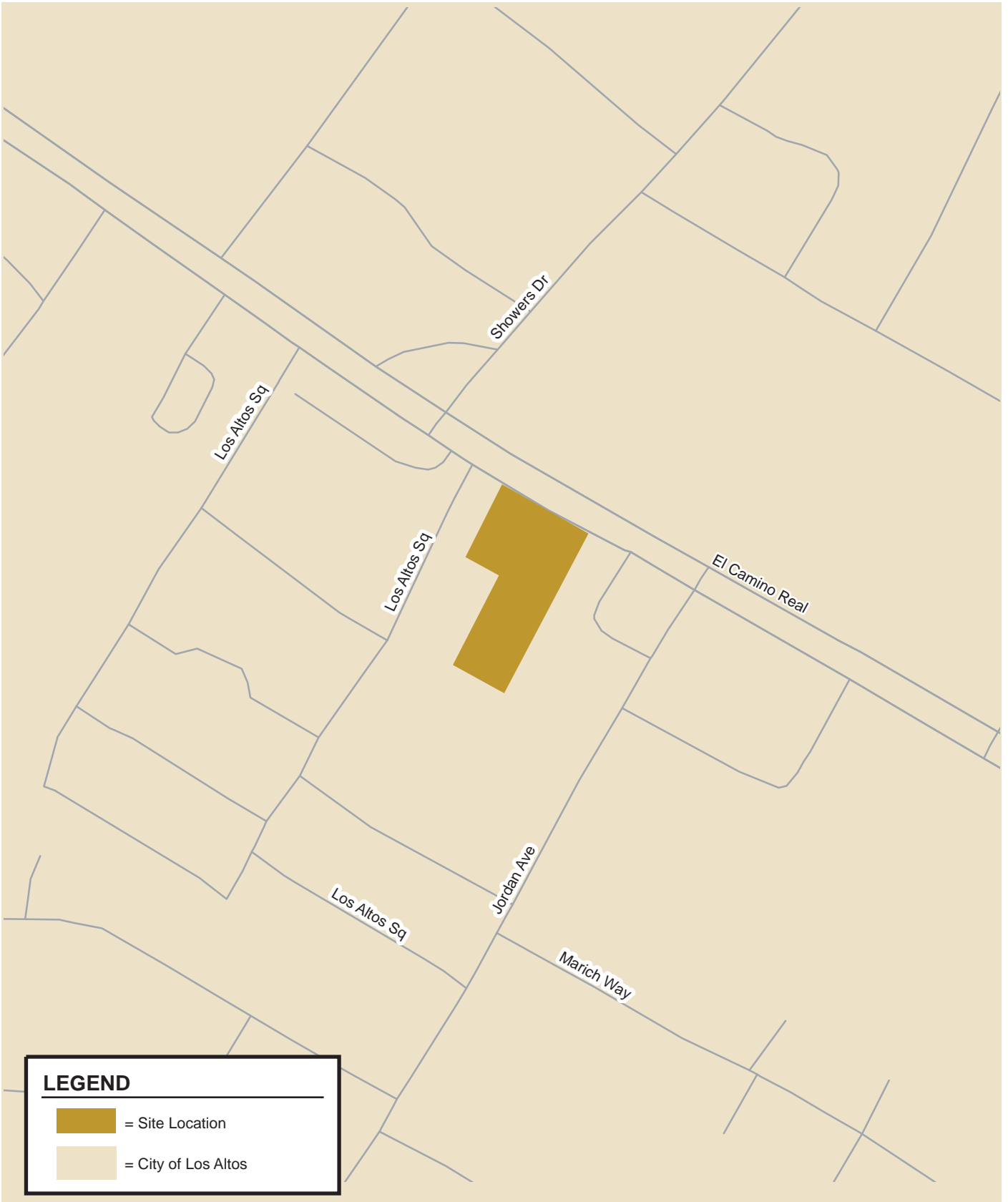
- Relative to the existing use, the project would generate 44 new daily trips, including 5 new trips during the AM peak hour and 53 fewer trips during the PM peak hour. The amount of additional traffic generated would be low, and the impact on the greater transportation network would be negligible.
- The project meets the city requirements for the number of parking spaces.
- Commonly cited parking publications recommend grades of up to 16% on ramps where no parking is permitted, but grades of up to 20% are cited as acceptable under conditions that are present here. The grade of the garage access ramp is acceptable.
- The proposed plan shows good circulation through the two levels of the garage. The drive aisle is shown to be 26 feet wide and would provide sufficient room for vehicles to back out of the 90-degree parking stalls including the tandem stalls. The vehicle turning paths are constrained by the inner wall of the ramp at both ends under the current design. Hexagon recommends the design be revised to move back the wall to provide enough spaces for vehicles to make turns to and from the ramps.
- There are some places in the garage where visibility would be limited. . Hexagon recommends that convex mirrors be placed at all locations in the garage where visibility is limited.
- Outbound at the project driveway on El Camino Real, the low volume of traffic would result in brief delays and short vehicle queues. Sight distance at the project driveway would be adequate provided (1) the landscaping is kept at a low level within 10 feet of the curb face on El Camino Real and (2) sight distance is not blocked by parked vehicles. Parking should be prohibited on El Camino Real within 10 feet west of the driveway.
- The project would exceed the bike parking standards recommended by VTA.

Sincerely,

**HEXAGON TRANSPORTATION CONSULTANTS, INC.**

Gary K. Black  
President





**Figure 1**  
**Site Location**

**BUILDING EXIT ANALYSIS PLAN**

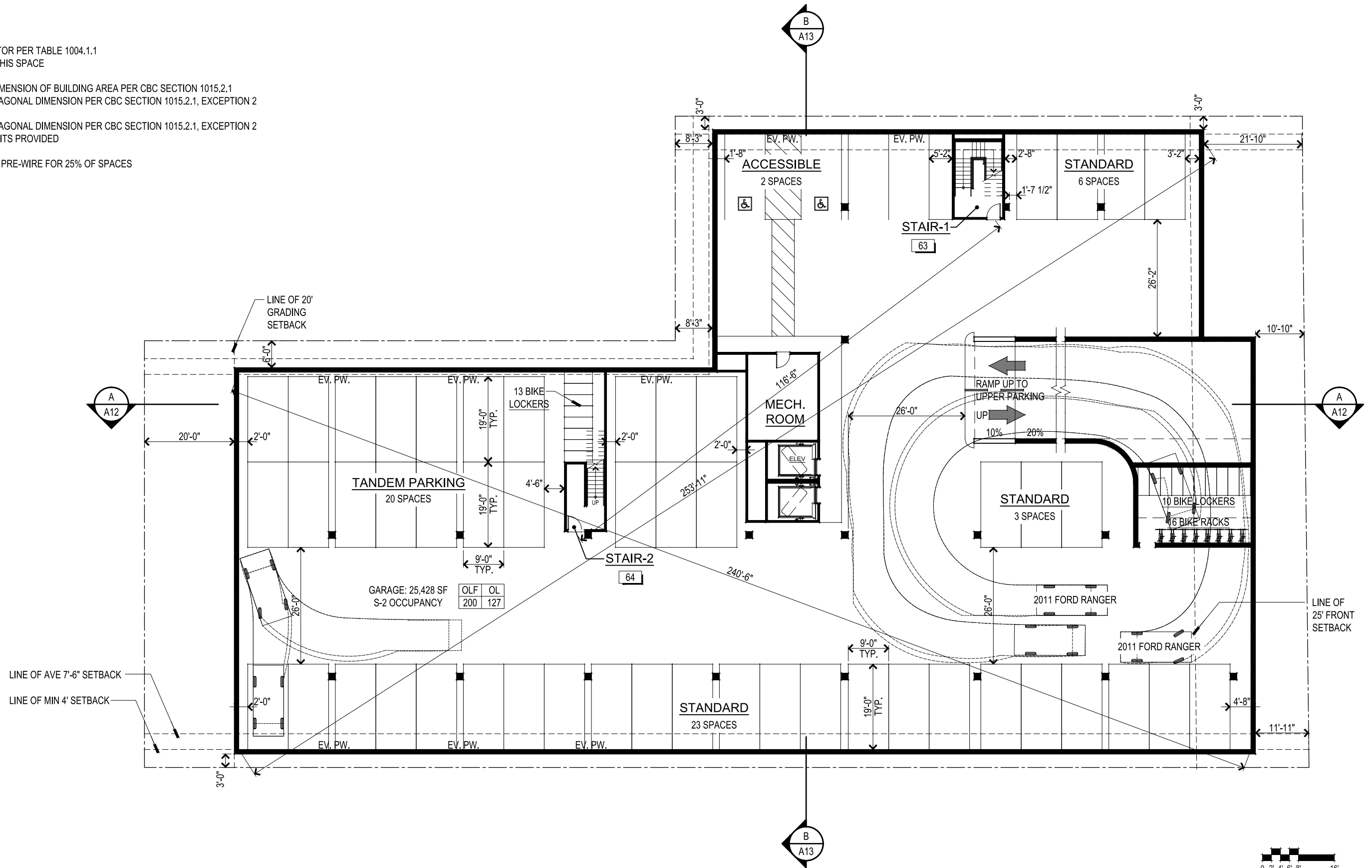
**25** OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	127	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
253'	84'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
28'	85'	DE = DISTANCE BETWEEN EXITS PROVIDED

EV. PW. PROVIDE ELECTRIC VEHICLE PRE-WIRE FOR 25% OF SPACES

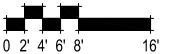


**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
May 15, 2018

**LUXONE LLC**

572 Chimalus Dr.  
Palo Alto, CA 94306



**Figure 2A**  
**LOWER LEVEL BASEMENT FLOOR PLAN**

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
925.634.7000  
www.strausdesign.com



SDG Architects, Inc.

**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	127	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
253'	84'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
28'	85'	DE = DISTANCE BETWEEN EXITS PROVIDED

EV. PW. PROVIDE ELECTRIC VEHICLE PRE-WIRE FOR 25% OF SPACES

**PARKING STANDARDS**

- PARKING STANDARDS (PER LAMC 14.28.040 SECTION G2)

**REQUIRED SPACES**

1 SPACE PER 1 BEDROOM UNIT:	9 SPACES
2 SPACES PER 2+ BEDROOM UNIT:	82 SPACES
TOTAL REQUIRED:	91 SPACES

INCLUDES GUEST AND HANDICAPPED SPACES

**PROVIDED SPACES**

TANDEM PARKING:	40 SPACES
STANDARD PARKING:	65 SPACES
ACCESSIBLE PARKING:	3 SPACES
TOTAL PROVIDED:	108 SPACES

**TRASH MANAGEMENT PLAN**

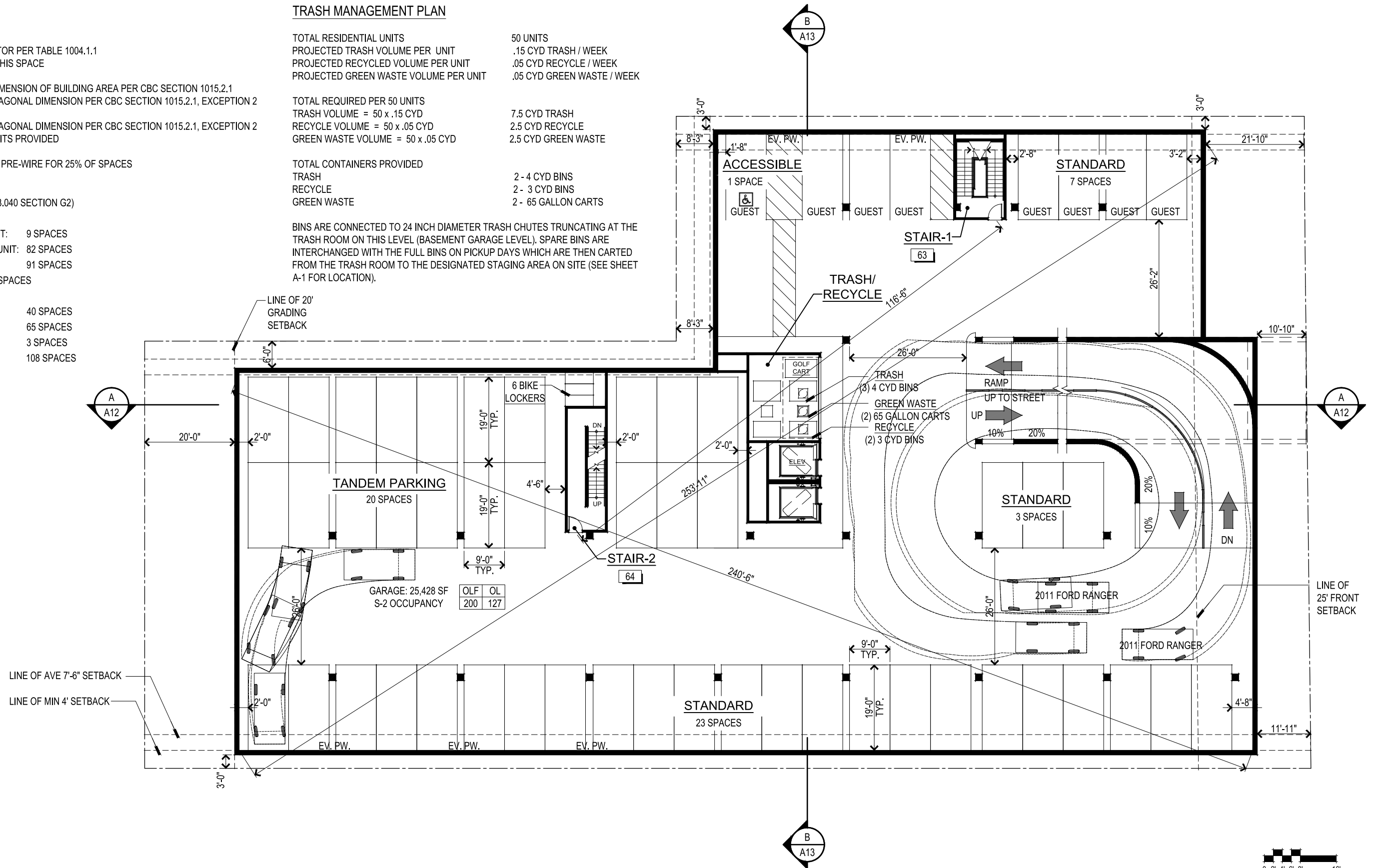
TOTAL RESIDENTIAL UNITS	50 UNITS
PROJECTED TRASH VOLUME PER UNIT	.15 CYD TRASH / WEEK
PROJECTED RECYCLED VOLUME PER UNIT	.05 CYD RECYCLE / WEEK
PROJECTED GREEN WASTE VOLUME PER UNIT	.05 CYD GREEN WASTE / WEEK

TOTAL REQUIRED PER 50 UNITS	
TRASH VOLUME = 50 x .15 CYD	7.5 CYD TRASH
RECYCLE VOLUME = 50 x .05 CYD	2.5 CYD RECYCLE
GREEN WASTE VOLUME = 50 x .05 CYD	2.5 CYD GREEN WASTE

**TOTAL CONTAINERS PROVIDED**

TRASH	2 - 4 CYD BINS
RECYCLE	2 - 3 CYD BINS
GREEN WASTE	2 - 65 GALLON CARTS

BINS ARE CONNECTED TO 24 INCH DIAMETER TRASH CHUTES TRUNCATING AT THE TRASH ROOM ON THIS LEVEL (BASEMENT GARAGE LEVEL). SPARE BINS ARE INTERCHANGED WITH THE FULL BINS ON PICKUP DAYS WHICH ARE THEN CARTED FROM THE TRASH ROOM TO THE DESIGNATED STAGING AREA ON SITE (SEE SHEET A-1 FOR LOCATION).



**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
May 15, 2018

**LUXONE LLC**

572 Chimalus Dr.  
Palo Alto, CA 94306

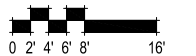


Figure 2B  
**UPPER LEVEL BASEMENT FLOOR PLAN**

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
925.634.7000  
www.strausdesign.com



SDG Architects, Inc.

**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

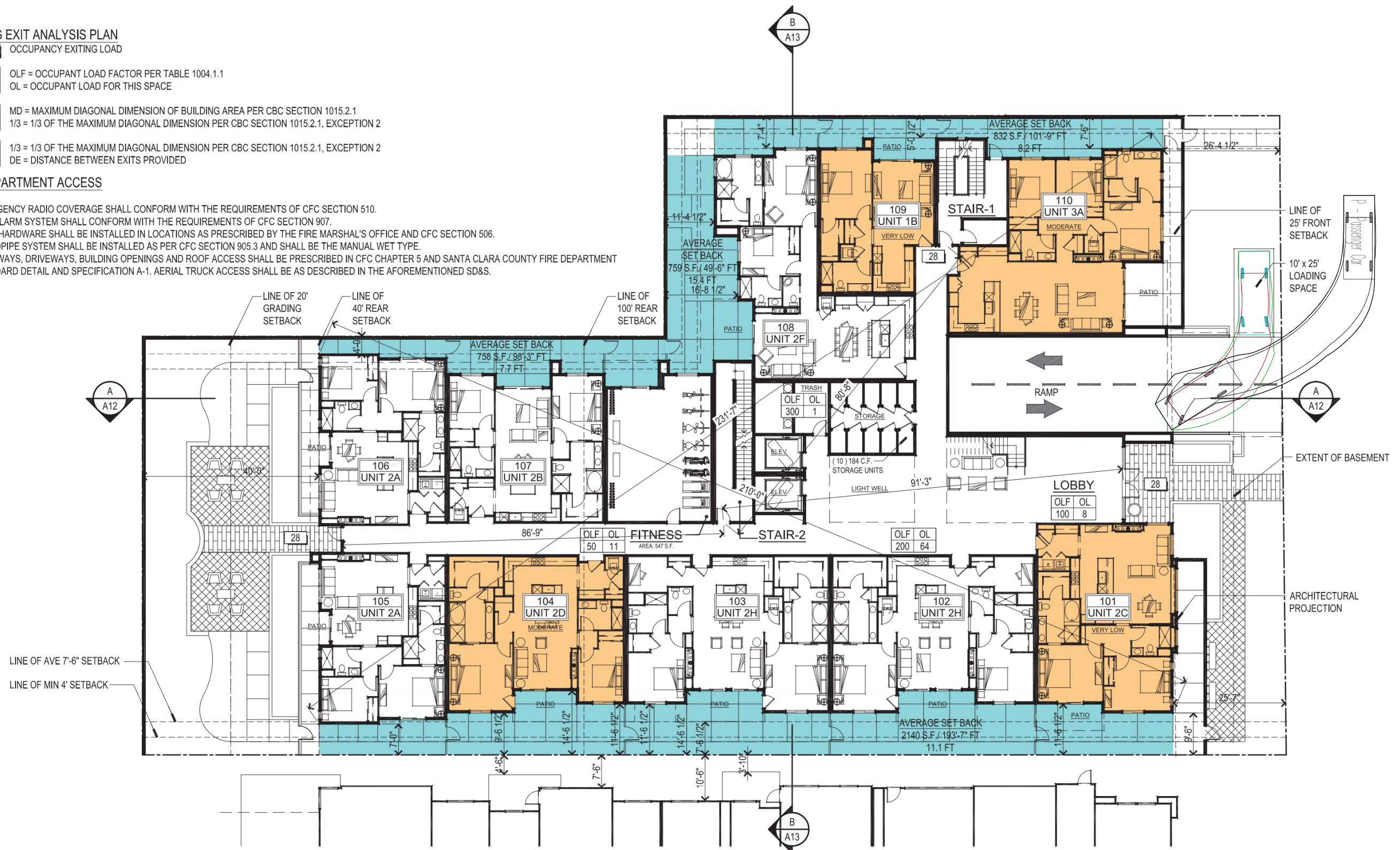
OLF OL OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1  
200 32 OL = OCCUPANT LOAD FOR THIS SPACE

MD 1/3 MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1  
232' 77" 1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3 DE 1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2  
77' 80" DE = DISTANCE BETWEEN EXITS PROVIDED

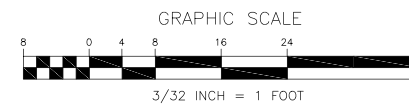
**FIRE DEPARTMENT ACCESS**

- EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
- FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
- KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
- STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
- ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.



**ALTOS ONE**  
4846 & 4856 El Camino Real  
Los Altos, CA  
March 05, 2018

**LUXONE LLC**  
4856 El Camino Real Suite 100  
Los Altos, CA 94002



**Figure 3**  
**TURNING PATH**  
**(BACK INTO THE LOADING ZONE**  
**FROM THE DRIVEWAY)**

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925.634.7000  
www.strausdesign.com



**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

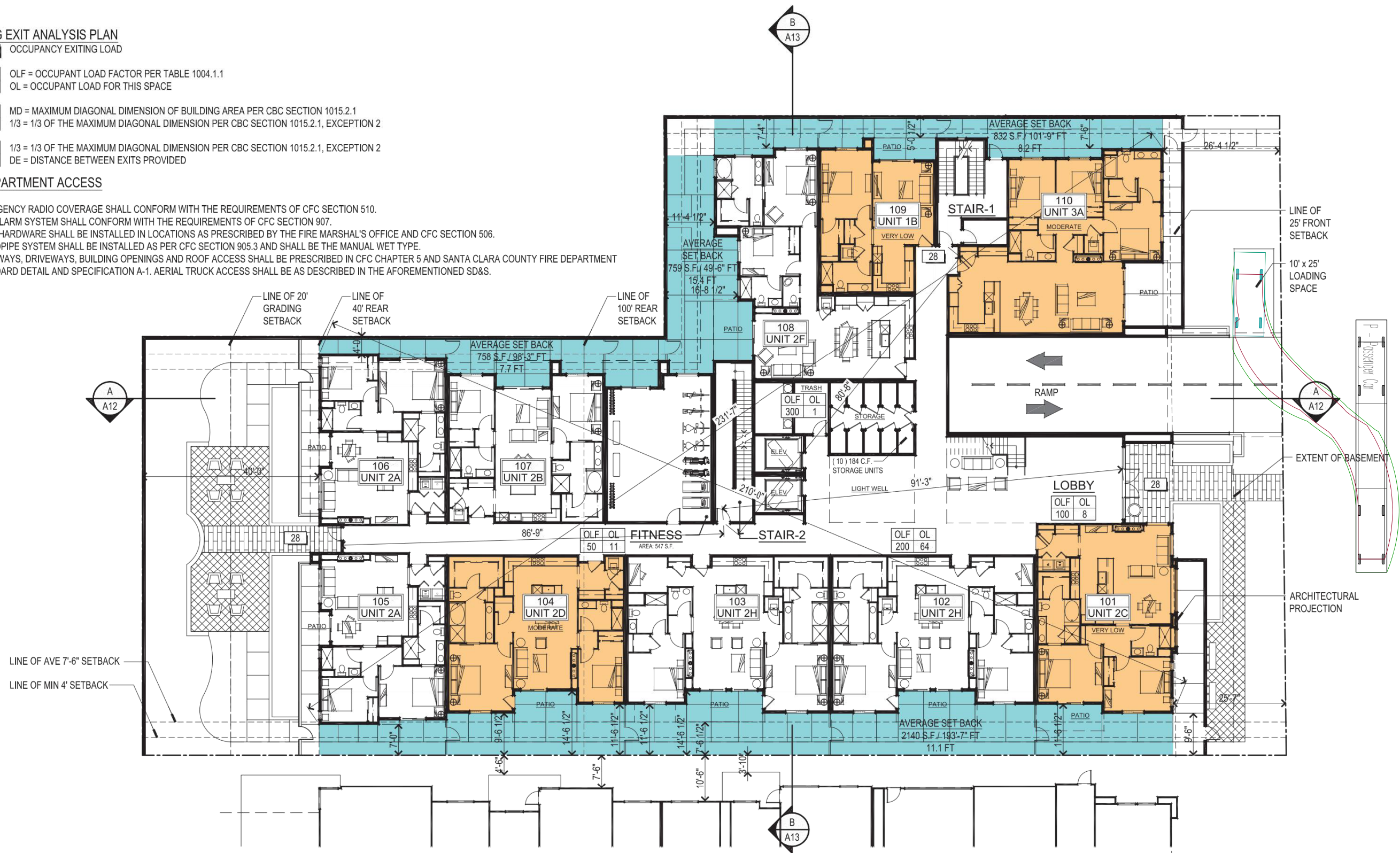
OLF OL OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1  
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77' 80" DE = DISTANCE BETWEEN EXITS PROVIDED

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**ALTOS ONE**  
4846 & 4856 El Camino Real  
Los Altos, CA  
March 05, 2018

**LUXONE LLC**  
4856 El Camino Real Suite 100  
Los Altos, CA 94002

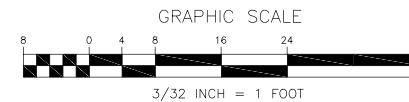


Figure 4  
**TURNING PATH**  
(BACK INTO THE LOADING ZONE FROM ECR)

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
925.634.7000  
www.strausdesign.com



***ALTOS ONE PROJECT  
AIR QUALITY & GREENHOUSE GAS  
EMISSIONS  
ASSESSMENT***

***Los Altos, California***

**March 15, 2017**

**Revised March 6, 2018**

**Prepared for:**

**Zach Dahl  
City of Los Altos  
1 North San Antonio Road  
Los Altos, CA 94022**

**Prepared by:**

**Joshua D. Carman**

***ILLINGWORTH & RODKIN, INC.***  
***//// Acoustics • Air Quality ////***  
**1 Willowbrook Court, Suite 120  
Petaluma, CA 94954  
(707) 794-0400**

Project: 16-188

## **Introduction**

The purpose of this report is to address air quality, toxic air contaminant (TAC), and greenhouse gas (GHG) emission impacts associated with the proposed Altos One residential project located at 4846/4856 El Camino Real in Los Altos, California. We understand that the project would demolish the on-site buildings and pavement and construct and operate up to 50 residential units. Air quality and GHG impacts could occur due to temporary construction emissions and as a result of direct and indirect emissions from new residences. The primary issue addressed in this air quality study is localized community risk impacts from emissions of project construction equipment and El Camino Real traffic. This analysis was conducted following guidance provided by the Bay Area Air Quality Management District (BAAQMD).

## **Setting**

The project is located in Santa Clara County, which is in the San Francisco Bay Area Air Basin. Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM<sub>10</sub>), and fine particulate matter (PM<sub>2.5</sub>).

### Air Pollutants of Concern

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO<sub>x</sub>). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduced lung function, and increase coughing and chest discomfort.

Particulate matter is another problematic air pollutant of the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM<sub>10</sub>) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM<sub>2.5</sub>). Elevated concentrations of PM<sub>10</sub> and PM<sub>2.5</sub> are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and result in reduced lung function growth in children.

### Toxic Air Contaminants

Toxic air contaminants (TAC) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

CARB has adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.<sup>1</sup> The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

The BAAQMD is the regional agency tasked with managing air quality in the region. At the State level, the CARB (a part of the California Environmental Protection Agency [EPA]) oversees regional air district activities and regulates air quality at the State level. The BAAQMD has recently published California Environmental Quality Act (CEQA) Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.<sup>2</sup>

### Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, elementary schools, and parks. The closest sensitive receptors are residences adjacent to the project site to the south. Additional residences are located to the south, west, and east.

### Greenhouse Gases

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO<sub>2</sub>) and water vapor but there are also several others, most importantly methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These are released into the earth's

---

<sup>1</sup> Available online: <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>. Accessed: June 9, 2015.

<sup>2</sup> Bay Area Air Quality Management District, 2017. *BAAQMD CEQA Air Quality Guidelines*. May.



atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO<sub>2</sub> and N<sub>2</sub>O are byproducts of fossil fuel combustion.
- N<sub>2</sub>O is associated with agricultural operations such as fertilization of crops.
- CH<sub>4</sub> is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO<sub>2</sub> being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO<sub>2</sub> equivalents (CO<sub>2</sub>e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

### Significance Thresholds

In June 2010, BAAQMD adopted thresholds of significance to assist in the review of projects under CEQA. These Thresholds were designed to establish the level at which BAAQMD believed air pollution emissions would cause significant environmental impacts under CEQA and were posted on BAAQMD's website and included in the Air District's updated CEQA Guidelines (updated May 2017). The significance thresholds identified by BAAQMD and used in this analysis are summarized in Table 1.

**Table 1. Air Quality Significance Thresholds**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)	Annual Average Emissions (tons/year)
<b>Criteria Air Pollutants</b>			
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub>	82	82	15
PM <sub>2.5</sub>	54	54	10
CO	Not Applicable	9.0 ppm (8-hour average) or 20.0 ppm (1-hour average)	
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	
<b>Health Risks and Hazards for Individual Sources</b>			
Excess Cancer Risk	>10 per one million		
Chronic or Acute Hazard Index	>1.0		
Incremental annual average PM <sub>2.5</sub>	>0.3 µg/m <sup>3</sup>		
<b>Health Risks and Hazards for Combined Sources (Cumulative from all sources within 1,000 foot zone of influence)</b>			
Excess Cancer Risk	>100 per one million		
Chronic Hazard Index	>10.0		
Annual Average PM <sub>2.5</sub>	>0.8 µg/m <sup>3</sup>		
<b>Greenhouse Gas Emissions</b>			
GHG Annual Emissions	Compliance with a Qualified GHG Reduction Strategy OR 1,100 metric tons or 4.6 metric tons per capita		
Note: ROG = reactive organic gases, NO <sub>x</sub> = nitrogen oxides, PM <sub>10</sub> = coarse particulate matter or particulates with an aerodynamic diameter of 10 micrometers (µm) or less, PM <sub>2.5</sub> = fine particulate matter or particulates with an aerodynamic diameter of 2.5µm or less; and GHG = greenhouse gas.			

BAAQMD’s adoption of significance thresholds contained in the 2011 CEQA Air Quality Guidelines was called into question by an order issued March 5, 2012, in California Building Industry Association (CBIA) v. BAAQMD (Alameda Superior Court Case No. RGI0548693). In December 2015, the Supreme Court determined that an analysis of the impacts of the environment on a project – known as “CEQA-in-reverse” – is only required under two limited circumstances: (1) when a statute provides an express legislative directive to consider such impacts; and (2) when a proposed project risks exacerbating environmental hazards or conditions that already exist (Cal. Supreme Court Case No. S213478). Though not necessarily a CEQA issue, the potential risk impact of El Camino Real on future project residences is addressed to be

consistent with the Bay Area Clean Air Plan goal of reducing TAC exposure and protecting public health in the Bay Area.

## **Impacts and Project Measures**

**Impact 1:** Conflict with or obstruct implementation of the applicable air quality plan?  
*No impact.*

The most recent clean air plan is the *Bay Area 2017 Clean Air Plan* that was adopted by BAAQMD. The proposed project would not conflict with the latest Clean Air planning efforts since 1) the project would have emissions well below the BAAQMD thresholds (see Impact 2), 2) the project would be considered urban infill, 3) the project would be located near employment centers, and 4) the project would be located near transit with regional connections. The project is too small to exceed any of the significance thresholds and, thus, it is not required to incorporate project-specific transportation control measures listed in the latest Clean Air Plan.

**Impact 2:** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable State or federal ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? *Less than significant with construction period control measures.*

The Bay Area is considered a non-attainment area for ground-level ozone and PM<sub>2.5</sub> under both the Federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM<sub>10</sub> under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM<sub>10</sub>, the BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for ozone precursor pollutants (ROG and NO<sub>x</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> and apply to both construction period and operational period impacts.

Due to the project size, construction- and operational-period emissions would be less than significant. In the 2017 update to the CEQA Air Quality Guidelines, BAAQMD identifies screening criteria for the sizes of land use projects that could result in significant air pollutant emissions. For operational impacts, the screening project size is identified at 451 dwelling units. For construction impacts, the screening size is identified as 240 dwelling units. Condo/townhouse projects of smaller size would be expected to have less-than-significant impacts. Since the project proposes to develop up to 50 dwelling units, it is concluded that emissions would be below the BAAQMD significance thresholds. Stationary sources of air pollution (e.g., back-up generators) have not been identified with this project.

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of PM<sub>10</sub> and PM<sub>2.5</sub>. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. Fugitive dust emissions would vary from day

to day, depending on the nature and magnitude of construction activity and local weather conditions. Fugitive dust emissions would also depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. *Mitigation Measure 1 would implement BAAQMD-required best management practices.*

***Mitigation Measure 1: Include basic measures to control dust and exhaust during construction.***

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures recommended by BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level. The contractor shall implement the following best management practices that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
8. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take

corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

**Impact 3:** Violate any air quality standard or contribute substantially to an existing or projected air quality violation? *Less than significant.*

As discussed under Impact 2, the project would have emissions less than the BAAQMD screening size for evaluating impacts related to ozone and particulate matter. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from traffic generated by the project would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Air pollutant monitoring data indicate that carbon monoxide levels have been at healthy levels (i.e., below State and federal standards) in the Bay Area since the early 1990s. As a result, the region has been designated as attainment for the standard. The highest measured level over any 8-hour averaging period during the last 3 years in the Bay Area is less than 3.0 parts per million (ppm), compared to the ambient air quality standard of 9.0 ppm. Intersections affected by the project would have traffic volumes less than the BAAQMD screening criteria and, thus, would not cause a violation of an ambient air quality standard or have a considerable contribution to cumulative violations of these standards.<sup>3</sup>

**Impact 4:** Expose sensitive receptors to substantial pollutant concentrations? *Less than significant with operational and construction period control measures.*

Project impacts related to increased community risk can occur either by introducing a new sensitive receptor, such as a residential use, in proximity to an existing source of TACs or by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project vicinity. The BAAQMD recommends using a 1,000-foot screening radius around a project site for purposes of identifying community health risk from siting a new sensitive receptor or a new source of TACs. Operation of the project is not expected to cause any localized emissions that could expose sensitive receptors to unhealthy air pollutant levels. No stationary sources of TACs, such as generators, are proposed as part of the project. The project would introduce new sensitive receptors to the area in the form of future residences. There are thresholds that address both the impact of single and cumulative TAC sources upon projects that include new sensitive receptors (see Table 1). Construction activity would generate dust and equipment exhaust on a temporary basis that could affect nearby sensitive receptors that include future planned residences.

### **Operational Community Risk Impacts**

The project would include new sensitive receptors. Substantial sources of air pollution can adversely affect sensitive receptors proposed as part of new projects. A review of the area indicates that El Camino Real (SR-82) is within 1,000 feet of the site and can adversely affect new residences. All other nearby roadways are assumed to have average daily traffic (ADT) of

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<sup>3</sup> For a land-use project type, the BAAQMD CEQA Air Quality Guidelines state that a proposed project would result in a less than significant impact to localized carbon monoxide concentrations if the project would not increase traffic at affected intersections with more than 44,000 vehicles per hour.

less than 10,000 and, according to BAAQMD guidance, would have a less than significant impact and are not discussed further. A review of BAAQMD's *Stationary Source Screening Analysis Tool* did not identify any stationary sources of TAC emissions within 1,000 feet that could adversely affect the project site.<sup>4</sup>

### El Camino Real

Illingworth & Rodkin conducted refined analysis involved predicting community risk impacts El Camino Real traffic for the 4880 El Camino Real Project adjacent to the Altos One project in 2016.<sup>5</sup> Emissions were input to the CAL3QHCR dispersion model to predict exposure to TACs. The associated cancer risk was computed based on the modeled exposures. Results of modeling indicated that while increased cancer risk would have a less than significant impact on project residences, annual PM<sub>2.5</sub> concentrations could exceed the BAAQMD threshold of 0.3 µg/m<sup>3</sup> within 50 feet of the roadway. Mitigation Measure 2 would reduce the potential PM<sub>2.5</sub> impact to a level of less than significant.

***Mitigation Measure 2: The project shall include the following measures to minimize long-term toxic air contaminant (TAC) and annual PM<sub>2.5</sub> exposure for new project occupants:***

The project should install air filtration at residential units within 50 feet of El Camino Real. To ensure adequate health protection to sensitive receptors, a ventilation system is proposed to meet the following minimal design standards:

- Air filtration devices shall be rated MERV13 or higher rating;
- At least one air exchange(s) per hour of fresh outside filtered air; and
- At least four air exchange(s) per hour recirculation.

As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system will be developed. Recognizing that emissions from air pollution sources are decreasing, the maintenance period will last as long as significant annual PM<sub>2.5</sub> exposures are predicted. Subsequent studies could be conducted by an air quality expert approved by the City to identify the ongoing need for the filtered ventilation systems as future information becomes available.

In addition, it is important to ensure that the lease agreement and other property documents (1) require cleaning, maintenance, and monitoring of the affected units for air flow leaks; (2) include assurance that new tenants or owners are provided information on the ventilation system; and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed.

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<sup>4</sup> See <http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools> , accessed March 15, 2017.

<sup>5</sup> Illingworth & Rodkin, Inc., 2016. 4880 El Camino Real Project Draft Air Quality 7 Greenhouse gas Emissions Assessment. March 18.

## Effectiveness of Reduction Measure

The U.S. Environmental Protection Agency (EPA) reports particle size removal efficiency for filters rated MERV 13 of 90 percent for particles in the size range of 1 to 3  $\mu\text{m}$  and less than 75 percent for particles 0.3 to 1  $\mu\text{m}$ .<sup>6</sup> Studies by the South Coast AQMD indicate that MERV 13 filters could achieve reductions of about 60 percent for ultra-fine particles and about 35 percent for black carbon.<sup>7</sup>

A properly installed and operated ventilation system with MERV 13 air filters may reduce PM<sub>2.5</sub> concentrations from DPM mobile and stationary sources by approximately 60 to 70 percent indoors when compared to outdoors. The U.S. EPA reports that people, on average, spend 90 percent of their time indoors.<sup>8</sup> The overall effectiveness calculations take into effect time spent outdoors and away from home. Assuming 60-percent effectiveness for this filtration, with 21 hours per day of exposure to filtered air and three hours per day to unfiltered air (uncontrolled or 0-percent effectiveness), the overall effectiveness of filtration systems would be about 53 percent. Therefore, with implementation of Mitigation Measure 2, this impact would be reduced to a level of less than significant.

## Summary of Combined Community Risk

As discussed above, the project site is affected by El Camino Real. There are no other substantial sources of TACs within 1,000 feet of the project site. This would be a less than significant impact.

## **Project Construction Activity**

Construction activities, particularly during site preparation and grading would temporarily generate fugitive dust in the form of respirable particulate matter (PM<sub>10</sub>) and PM<sub>2.5</sub>. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. *Mitigation Measure 1 would implement BAAQMD-required best management practices.*

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. These exhaust air pollutant emissions would not be considered to contribute substantially to existing or projected air quality violations. Construction exhaust emissions may still pose community risks for sensitive receptors such as nearby residents. The primary

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<sup>6</sup> U.S. EPA. 2009. *Residential Air Cleaners Second Edition. A Summary of Available Information. Indoor Air Quality (IAQ)*. EPA 402-F-09-002 | Revised August 2009 | [www.epa.gov/iaq](http://www.epa.gov/iaq)

<sup>7</sup> South Coast AQMD. 2009. *Pilot Study of High Performance Air Filtration for Classrooms Applications*. Draft – October.

<sup>8</sup> Klepeis, N.E., Nelsen, W.C., Ott, W.R., Robinson, J.P., Tsang, A.M., Switzer, P., Behar, J.V., Hern, S.C., and Engelmann, W.H. 2001. *The National Human Activity Pattern Survey (NHAPS): a resource for assessing exposure to environmental pollutants*. J. Expo Anal Environ Epidemiol. 2001 May-Jun;11(3):231-52.

community risk impact issues associated with construction emissions are cancer risk and exposure to PM<sub>2.5</sub>. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A community risk assessment of the project construction activities was conducted that evaluated potential health effects of sensitive receptors at these nearby residences from construction emissions of DPM and PM<sub>2.5</sub>.<sup>9</sup> The closest sensitive receptors to the project site are residences adjacent to the southern boundary of the project site (see Figure 1). Emissions and dispersion modeling was conducted to predict the off-site DPM concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects could be evaluated.

### Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate annual emissions for construction. CalEEMod provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The proposed project land uses were input into CalEEMod, which included 50 dwelling units entered as “Condo/Townhouse,” and 112 parking spaces entered as “Enclosed Parking” on a 0.73-acre site. A construction build-out scenario, including equipment list and phasing schedule was based on model defaults for a project of this type and size and a construction start date of April 2019. It is expected that 21,280 cubic yards of soil export will be necessary, which was entered into the model. In addition, 30,500 sf of building and pavement demolition is anticipated. *Attachment 1* includes the detailed risk modeling methodology and *Attachment 2* includes the CalEEMod input and output values for construction emissions.

The CalEEMod model provided total annual PM<sub>10</sub> exhaust emissions (assumed to be DPM) for the off-road construction equipment and for exhaust emissions from on-road vehicles, with total emissions from all construction stages of 0.0354 tons (71 pounds). The on-road emissions are a result of haul truck travel during demolition and grading activities, worker travel, and vendor deliveries during construction. It was assumed that these emissions from on-road vehicles traveling at or near the site would occur at the construction site. Fugitive PM<sub>2.5</sub> dust emissions were calculated by CalEEMod as 7 pounds for the overall construction period. For the purpose of estimating risk levels at or near the site, the CalEEMod modeling included emissions from truck and worker travel, assumed to occur over a distance of one half mile at or near the site.

### Dispersion Modeling

The U.S. EPA AERMOD dispersion model was used to predict concentrations of DPM and PM<sub>2.5</sub> concentrations at existing sensitive receptors (residences) in the vicinity of the project site. The AERMOD modeling utilized two area sources to represent the on-site construction emissions, one for DPM exhaust emissions and the other for fugitive PM<sub>2.5</sub> dust emissions. To represent the construction equipment exhaust emissions, an emission release height of six meters was used for the area source. The elevated source height reflects the height of the equipment exhaust pipes and buoyancy of the exhaust plume. For modeling fugitive PM<sub>2.5</sub> emissions, a near ground level release height of two meters was used for the area source. Emissions from

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<sup>9</sup> DPM is identified by California as a toxic air contaminant due to the potential to cause cancer.



vehicle travel around the project site were included in the modeled area sources. Construction emissions were modeled as occurring daily between 7 a.m. - 4 p.m.

The modeling used a five-year data set (2009 - 2013) of hourly meteorological data from Moffett Field prepared for use with the AERMOD model by the CARB. Annual DPM and PM<sub>2.5</sub> concentrations from construction activities in 2019 were calculated using the model. DPM and PM<sub>2.5</sub> concentrations were calculated at nearby residential locations. Receptor heights of 1.5 meters (4.9 feet) and 4.5 meters (14.8 feet) were used in the modeling to represent the breathing heights of nearby first and second floor residences. Figure 1 shows the construction area modeled, and locations of nearby residential receptors.

### Predicted Cancer Risk and Hazards

The maximum-modeled DPM and PM<sub>2.5</sub> concentrations occurred at a residence just east of the project site. Using the maximum annual modeled DPM concentrations, the maximum increased cancer risks were calculated using the methods previously described. Due to the short anticipated duration of project construction activities (less than one year), infant exposures were assumed in calculating cancer risks for residential exposures. Because an infant (0 to 2 years of age) has a breathing rate that is greater than the breathing rate for the 3<sup>rd</sup> trimester the contribution to total cancer risk from an infant exposure is greater than if the initial exposure assumed for the 3<sup>rd</sup> trimester is assumed. It was conservatively assumed that an infant exposure to construction emissions would occur over the entire construction period.

Results of this assessment indicate that the maximum increased residential cancer risks would be 36.6 in one million for an infant exposure and 0.8 in one million for an adult exposure. The location of the receptor with the maximum increased cancer risk is shown in Figure 1. The maximum residential excess cancer risk would be greater than the BAAQMD significance threshold of 10 in one million and would be considered a *significant impact*

The maximum-modeled annual PM<sub>2.5</sub> concentration, which is based on combined exhaust and fugitive dust emissions, was 0.3 µg/m<sup>3</sup>, occurring at a residence adjacent to where the maximum cancer risk would occur. This annual PM<sub>2.5</sub> concentration would not be greater than the BAAQMD significance threshold of 0.3 µg/m<sup>3</sup> and would be considered a *less-than-significant impact*.

The maximum modeled annual residential DPM concentration (i.e., from construction exhaust) was 0.2623 µg/m<sup>3</sup>. The maximum computed HI based on this DPM concentration is 0.05, which is lower than the BAAQMD significance criterion of a HI greater than 1.0.

The project would have a *significant impact* with respect to community risk caused by construction activities. *Implementation of Mitigation Measures 1 and 3 would reduce this impact to a level of less than significant.*

*Attachment 2* includes the emission calculations used for the area source modeling and the cancer risk calculations.

***Mitigation Measure 3: Selection of equipment during construction to minimize emissions. Such equipment selection would include the following:***

All diesel-powered off-road equipment operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent. Note that the construction contractor could use other measures to minimize construction period DPM emission to reduce the predicted cancer risk below the thresholds. The use of equipment that includes Tier 2 engines and CARB-certified Level 3 Diesel Particulate Filters<sup>10</sup> or alternatively-fueled equipment (i.e., non-diesel) would also meet this requirement. Other measures may be the use of added exhaust devices, or a combination of measures, provided that these measures are approved by the City and demonstrated to reduce community risk impacts to less than significant.

Implementation of *Mitigation Measure 1* is considered to reduce exhaust emissions by 5 percent and fugitive dust emissions by over 50 percent. Implementation of *Mitigation Measure 3* would further reduce on-site diesel exhaust emissions. With mitigation, the computed maximum increased cancer risk for construction would be 3.9 in one million or less. The cancer risk would be below the BAAQMD thresholds of greater than 10 per one million for cancer risk. Therefore, *after implementation of these recommended measures, the project would have a less-than-significant impact with respect to community risk caused by construction activities.*

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<sup>10</sup> See <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

Figure 1. Project Construction Site, Locations of Off-Site Sensitive Receptors and Maximum TAC Impact



**Impact 5:** Create objectionable odors affecting a substantial number of people? *Less than significant.*

The project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. These emissions may be noticeable from time to time by adjacent receptors. However, they would be localized and are not likely to adversely affect people off site by resulting in confirmed odor complaints. The project would not include any sources of significant odors that would cause complaints from surrounding uses. This would be a *less-than-significant impact*

**Impact 6:** Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? *Less than significant.*

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project are discussed below and were analyzed using the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.<sup>11</sup>

#### Construction Phase

Neither the City nor BAAQMD have an adopted threshold of significance for construction-related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable. Best management practices assumed to be incorporated into construction of the proposed project include, but are not limited to: using local building materials of at least 10 percent and recycling or reusing at least 50 percent of construction waste or demolition materials.

#### Operational Impacts

Due to the project size, operational period GHG emissions would be less than significant. In their May 2017 update to the CEQA Air Quality Guidelines, BAAQMD identified screening criteria for the sizes of land use projects that could result in significant GHG emissions. For operational impacts, the screening project size is identified at 78 dwelling units. Condo/townhouse projects of smaller size would be expected to have less-than-significant impacts with respect to operational period GHG emissions. Since the project proposes to operate 50 dwelling units, it is concluded that emissions would be below the BAAQMD significance threshold of 1,100 MT of CO<sub>2</sub>e annually and, therefore, this impact is considered *less than significant*.

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<sup>11</sup> BAAQMD, 2017. *Op cit.*

**Impact 7:** Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? *Less than significant.*

AB 32, the Global Warming Solutions Act of 2006, codifies the State of California's GHG emissions target by directing CARB to reduce the state's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, CARB, CEC, the California Public Utilities Commission (CPUC), and the Building Standards Commission have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State of California's main strategies to reduce GHGs from BAU emissions projected in 2020 back down to 1990 levels. BAU is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. It required CARB and other state agencies to develop and adopt regulations and other initiatives reducing GHGs by 2012.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 MMT of CO<sub>2</sub>e as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector- or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast, in light of the economic downturn, to 545 MMT of CO<sub>2</sub>e. Two GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of CO<sub>2</sub>e. Thus, an estimated reduction of 80 MMT of CO<sub>2</sub>e is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB published on a second update to the Scoping Plan to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The proposed Scoping Plan Update was published in November 2017 as directed by SB 32 companion legislation AB 197. The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and obtain the statewide goals.

The proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan. The project would comply with requirements of the Green Building Code. For example, proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures and water-efficient irrigation systems.

## Attachment 1: Health Risk Calculation Methodology

A health risk assessment (HRA) for exposure to Toxic Air Contaminates (TACs) requires the application of a risk characterization model to the results from the air dispersion model to estimate potential health risk at each sensitive receptor location. The State of California Office of Environmental Health Hazard Assessment (OEHHA) and California Air Resources Board (CARB) develop recommended methods for conducting health risk assessments. The most recent OEHHA risk assessment guidelines were published in February of 2015.<sup>12</sup> These guidelines incorporate substantial changes designed to provide for enhanced protection of children, as required by State law, compared to previous published risk assessment guidelines. CARB has provided additional guidance on implementing OEHHA's recommended methods.<sup>13</sup> This HRA used the recent 2015 OEHHA risk assessment guidelines and CARB guidance. The BAAQMD has adopted recommended procedures for applying the newest OEHHA guidelines as part of Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants.<sup>14</sup> Exposure parameters from the OEHHA guidelines and the recent BAAQMD HRA Guidelines were used in this evaluation.

### Cancer Risk

Potential increased cancer risk from inhalation of TACs are calculated based on the TAC concentration over the period of exposure, inhalation dose, the TAC cancer potency factor, and an age sensitivity factor to reflect the greater sensitivity of infants and children to cancer causing TACs. The inhalation dose depends on a person's breathing rate, exposure time and frequency of exposure, and the exposure duration. These parameters vary depending on the age, or age range, of the persons being exposed and whether the exposure is considered to occur at a residential location or other sensitive receptor location.

The current OEHHA guidance recommends that cancer risk be calculated by age groups to account for different breathing rates and sensitivity to TACs. Specifically, they recommend evaluating risks for the third trimester of pregnancy to age zero, ages zero to less than two (infant exposure), ages two to less than 16 (child exposure), and ages 16 to 70 (adult exposure). Age sensitivity factors (ASFs) associated with the different types of exposure are an ASF of 10 for the third trimester and infant exposures, an ASF of 3 for a child exposure, and an ASF of 1 for an adult exposure. Also associated with each exposure type are different breathing rates, expressed as liters per kilogram of body weight per day (L/kg-day). As recommended by the BAAQMD, 95<sup>th</sup> percentile breathing rates are used for the third trimester and infant exposures, and 80<sup>th</sup> percentile breathing rates for child and adult exposures. Additionally, CARB and the BAAQMD recommend the use of a residential exposure duration of 30 years for sources with long-term emissions (e.g., roadways).

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<sup>12</sup> OEHHA, 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines, The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. Office of Environmental Health Hazard Assessment. February.

<sup>13</sup> CARB, 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. July 23.

<sup>14</sup> BAAQMD, 2016. *BAAQMD Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*. January 2016.

Under previous OEHHA and BAAQMD HRA guidance, residential receptors are assumed to be at their home 24 hours a day, or 100 percent of the time. In the 2015 Risk Assessment Guidance, OEHHA includes adjustments to exposure duration to account for the fraction of time at home (FAH), which can be less than 100 percent of the time, based on updated population and activity statistics. The FAH factors are age-specific and are: 0.85 for third trimester of pregnancy to less than 2 years old, 0.72 for ages 2 to less than 16 years, and 0.73 for ages 16 to 70 years. Use of the FAH factors is allowed by the BAAQMD if there are no schools in the project vicinity that would have a cancer risk of one in a million or greater assuming 100 percent exposure (FAH = 1.0).

Functionally, cancer risk is calculated using the following parameters and formulas:

$$\text{Cancer Risk (per million)} = CPF \times \text{Inhalation Dose} \times ASF \times ED/AT \times FAH \times 10^6$$

Where:

- CPF = Cancer potency factor (mg/kg-day)<sup>-1</sup>
- ASF = Age sensitivity factor for specified age group
- ED = Exposure duration (years)
- AT = Averaging time for lifetime cancer risk (years)
- FAH = Fraction of time spent at home (unitless)

$$\text{Inhalation Dose} = C_{\text{air}} \times DBR \times A \times (EF/365) \times 10^{-6}$$

Where:

- C<sub>air</sub> = concentration in air (µg/m<sup>3</sup>)
- DBR = daily breathing rate (L/kg body weight-day)
- A = Inhalation absorption factor
- EF = Exposure frequency (days/year)
- 10<sup>-6</sup> = Conversion factor

The health risk parameters used in this evaluation are summarized as follows:

Parameter	Exposure Type →	Infant		Child		Adult
	Age Range →	3 <sup>rd</sup> Trimester	0<2	2 < 9	2 < 16	16 - 30
DPM Cancer Potency Factor (mg/kg-day) <sup>-1</sup>		1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
Daily Breathing Rate (L/kg-day)*		361	1,090	631	572	261
Inhalation Absorption Factor		1	1	1	1	1
Averaging Time (years)		70	70	70	70	70
Exposure Duration (years)		0.25	2	14	14	14
Exposure Frequency (days/year)		350	350	350	350	350
Age Sensitivity Factor		10	10	3	3	1
Fraction of Time at Home		0.85-1.0	0.85-1.0	0.72-1.0	0.72-1.0	0.73

\* 95<sup>th</sup> percentile breathing rates for 3<sup>rd</sup> trimester and infants and 80<sup>th</sup> percentile for children and adults

## Non-Cancer Hazards

Potential non-cancer health hazards from TAC exposure are expressed in terms of a hazard index (HI), which is the ratio of the TAC concentration to a reference exposure level (REL). OEHHA has defined acceptable concentration levels for contaminants that pose non-cancer health hazards. TAC concentrations below the REL are not expected to cause adverse health impacts, even for sensitive individuals. The total HI is calculated as the sum of the HIs for each TAC evaluated and the total HI is compared to the BAAQMD significance thresholds to determine whether a significant non-cancer health impact from a project would occur.

Typically, for residential projects located near roadways with substantial TAC emissions, the primary TAC of concern with non-cancer health effects is diesel particulate matter (DPM). For DPM, the chronic inhalation REL is 5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

## Annual PM<sub>2.5</sub> Concentrations

While not a TAC, fine particulate matter (PM<sub>2.5</sub>) has been identified by the BAAQMD as a pollutant with potential non-cancer health effects that should be included when evaluating potential community health impacts under the California Environmental Quality Act (CEQA). The thresholds of significance for PM<sub>2.5</sub> (project level and cumulative) are in terms of an increase in the annual average concentration. When considering PM<sub>2.5</sub> impacts, the contribution from all sources of PM<sub>2.5</sub> emissions should be included. For projects with potential impacts from nearby local roadways, the PM<sub>2.5</sub> impacts should include those from vehicle exhaust emissions, PM<sub>2.5</sub> generated from vehicle tire and brake wear, and fugitive emissions from re-suspended dust on the roads.



**Attachment 2: Construction Schedule, CalEEMod Input and Output Worksheets, and Risk Calculations**

<b>Project Name:</b>		<b>4856/4846 ECR, Los Altos</b>											
<b>Project Size</b>		<b>50 Dwelling Units</b>	<b>0.725 total project acres disturbed</b>										
		<b>88,919 s.f. residential</b>											
		<b>50,856 s.f. parking garage</b>	<b>112 spaces</b>										
<b>Construction Hours</b>		<b>am to</b>		<b>pm</b>									
<b>Qty</b>	<b>Description</b>	<b>HP</b>	<b>Load Factor</b>	<b>Hours/day</b>	<b>Total Work Days</b>	<b>Avg. Hours per day</b>	<b>Annual Hours</b>	<b>Comments</b>					
<b>Demolition</b>		<b>Start Date:</b>	<b>4/1/2019</b>	<b>Total phase:</b>		<b>10</b>		<b>Overall Import/Export Volumes</b>					
		<b>End Date:</b>	<b>4/12/2019</b>										
1	Concrete/Industrial Saws	81	0.73	8	10	8	80	<b>Demolition Volume</b>					
1	Rubber-Tired Dozers	247	0.4	1	10	1	10	Square footage of buildings to be demolished					
2	Tractors/Loaders/Backhoes	97	0.37	6	10	6	120	(or total tons to be hauled)					
								<u>10,000</u> square feet or					
								<u>?</u> Hauling volume (tons) 20,500 sf of hardscape					
<b>Site Preparation</b>		<b>Start Date:</b>	<b>4/13/2019</b>	<b>Total phase:</b>		<b>1</b>		<b>Any pavement demolished and hauled? <u>?</u> tons</b>					
		<b>End Date:</b>	<b>4/15/2019</b>										
1	Graders	174	0.41	8	1	8	8						
1	Tractors/Loaders/Backhoes	97	0.37	8	1	8	8						
<b>Grading / Excavation</b>		<b>Start Date:</b>	<b>4/16/2019</b>	<b>Total phase:</b>		<b>2</b>		<b>Soil Hauling Volume</b>					
		<b>End Date:</b>	<b>4/17/2019</b>					Export volume = <u>21,280</u> cubic yards?					
1	Concrete/Industrial Saws	81	0.73	8	2	8	16	Import volume = <u>?</u> cubic yards?					
1	Rubber Tired Dozers	247	0.4	1	2	1	2						
2	Tractors/Loaders/Backhoes	97	0.37	6	2	6	24						
<b>Building - Exterior</b>		<b>Start Date:</b>	<b>4/18/2019</b>	<b>Total phase:</b>		<b>100</b>		<b>Cement Trucks? <u>?</u> Total Round-Trips</b>					
		<b>End Date:</b>	<b>9/4/2019</b>										
1	Cranes	231	0.29	4	100	4	400	Electric? (Y/N) <u>?</u> Otherwise assumed diesel					
2	Forklifts	89	0.2	6	100	6	1200	Liquid Propane (LPG)? (Y/N) <u>?</u> Otherwise Assumed diesel					
2	Tractors/Loaders/Backhoes	97	0.37	8	100	8	1600						
<b>Building - Interior/Architectural Coating</b>		<b>Start Date:</b>	<b>9/12/2019</b>	<b>Total phase:</b>		<b>5</b>							
		<b>End Date:</b>	<b>9/18/2019</b>										
1	Air Compressors	78	0.48	6	5	6	30						
<b>Paving</b>		<b>Start Date:</b>	<b>9/5/2019</b>	<b>Total phase:</b>		<b>5</b>							
		<b>Start Date:</b>	<b>9/11/2019</b>										
4	Cement and Mortar Mixers	9	0.56	6	5	6	120	<b>Asphalt? <u>?</u> cubic yards or <u>?</u> round trips?</b>					
1	Pavers	130	0.42	7	5	7	35						
1	Rollers	80	0.38	7	5	7	35						
1	Tractors/Loaders/Backhoes	97	0.37	7	5	7	35						

4846/4856 ECR Construction TAC - Santa Clara County, Annual

**4846/4856 ECR Construction TAC, Tier 2 w DPF Level 3  
Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	112.00	Space	0.00	50,856.00	0
Condo/Townhouse	50.00	Dwelling Unit	0.73	88,919.00	143

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - from "\_\_\_18-03-05 Mohr Clock DRB\_Lores.pdf" plan set

Construction Phase - Construction start date April 2019, default phase durations for a project of this type and size

Trips and VMT - 0.5mi trip lengths for TAC

Demolition - 10,000sf bldg demo, 20,500sf hardscape

Grading - 21,280 cy export

Construction Off-road Equipment Mitigation - Tier 2 engines, DPF Level 3 for equip >25hp. BAAQMD BMPs.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblConstEquipMitigation	Tier	No Change	Tier 2
tblGrading	MaterialExported	0.00	21,280.00

tblLandUse	LandUseSquareFeet	44,800.00	50,856.00
tblLandUse	LandUseSquareFeet	50,000.00	88,919.00
tblLandUse	LotAcreage	1.01	0.00
tblLandUse	LotAcreage	3.13	0.73
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Year	tons/yr										MT/yr					
2019	0.7011	0.7613	0.5036	9.1000e-004	0.0193	0.0354	0.0547	3.4700e-003	0.0327	0.0362	0.0000	82.8619	82.8619	0.0210	0.0000	83.3864
<b>Maximum</b>	<b>0.7011</b>	<b>0.7613</b>	<b>0.5036</b>	<b>9.1000e-004</b>	<b>0.0193</b>	<b>0.0354</b>	<b>0.0547</b>	<b>3.4700e-003</b>	<b>0.0327</b>	<b>0.0362</b>	<b>0.0000</b>	<b>82.8619</b>	<b>82.8619</b>	<b>0.0210</b>	<b>0.0000</b>	<b>83.3864</b>

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6727	0.8212	0.5286	9.1000e-004	5.9600e-003	3.7800e-003	9.7400e-003	1.2300e-003	3.7700e-003	5.0000e-003	0.0000	82.8618	82.8618	0.0210	0.0000	83.3863
<b>Maximum</b>	<b>0.6727</b>	<b>0.8212</b>	<b>0.5286</b>	<b>9.1000e-004</b>	<b>5.9600e-003</b>	<b>3.7800e-003</b>	<b>9.7400e-003</b>	<b>1.2300e-003</b>	<b>3.7700e-003</b>	<b>5.0000e-003</b>	<b>0.0000</b>	<b>82.8618</b>	<b>82.8618</b>	<b>0.0210</b>	<b>0.0000</b>	<b>83.3863</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>4.05</b>	<b>-7.86</b>	<b>-4.96</b>	<b>0.00</b>	<b>69.14</b>	<b>89.31</b>	<b>82.18</b>	<b>64.55</b>	<b>88.46</b>	<b>86.17</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2019	6-30-2019	0.4773	0.4935
2	7-1-2019	9-30-2019	0.9427	0.9563
		<b>Highest</b>	<b>0.9427</b>	<b>0.9563</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
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1	Demolition	Demolition	4/1/2019	4/12/2019	5	10
2	Site Preparation	Site Preparation	4/13/2019	4/15/2019	5	1
3	Grading	Grading	4/16/2019	4/17/2019	5	2
4	Building Construction	Building Construction	4/18/2019	9/4/2019	5	100
5	Paving	Paving	9/5/2019	9/11/2019	5	5
6	Architectural Coating	Architectural Coating	9/12/2019	9/18/2019	5	5

**Acres of Grading (Site Preparation Phase): 0.5**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

**Residential Indoor: 180,061; Residential Outdoor: 60,020; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

### Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	11.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	5	57.00	14.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	139.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,660.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

### **3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### **3.2 Demolition - 2019**

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0150	0.0000	0.0150	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>4.7700e-003</b>	<b>0.0430</b>	<b>0.0385</b>	<b>6.0000e-005</b>	<b>0.0150</b>	<b>2.6900e-003</b>	<b>0.0177</b>	<b>2.2700e-003</b>	<b>2.5600e-003</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</b>



**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	7.0700e-003	1.1600e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.7831	0.7831	1.0000e-004	0.0000	0.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0262	0.0262	0.0000	0.0000	0.0262
<b>Total</b>	<b>2.2000e-004</b>	<b>7.0900e-003</b>	<b>1.4800e-003</b>	<b>1.0000e-005</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8093</b>	<b>0.8093</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.8119</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3800e-003	0.0000	3.3800e-003	5.1000e-004	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0518	0.0397	6.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>2.4200e-003</b>	<b>0.0518</b>	<b>0.0397</b>	<b>6.0000e-005</b>	<b>3.3800e-003</b>	<b>3.0000e-004</b>	<b>3.6800e-003</b>	<b>5.1000e-004</b>	<b>3.0000e-004</b>	<b>8.1000e-004</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</b>

**Mitigated Construction Off-Site**



Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.3100e-003
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5000e-004	4.3100e-003	2.9300e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
<b>Total</b>	<b>1.5000e-004</b>	<b>4.3100e-003</b>	<b>2.9300e-003</b>	<b>0.0000</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>8.0000e-005</b>	<b>1.0000e-005</b>	<b>2.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.4378</b>	<b>0.4378</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4413</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.3100e-003
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>

### 3.4 Grading - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9600e-003	0.0000	1.9600e-003	6.0000e-004	0.0000	6.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>9.5000e-004</b>	<b>8.6000e-003</b>	<b>7.6900e-003</b>	<b>1.0000e-005</b>	<b>1.9600e-003</b>	<b>5.4000e-004</b>	<b>2.5000e-003</b>	<b>6.0000e-004</b>	<b>5.1000e-004</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-003	0.1353	0.0223	1.6000e-004	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.4000e-004	3.0000e-004	0.0000	14.9867	14.9867	1.9400e-003	0.0000	15.0351
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2300e-003	5.2300e-003	0.0000	0.0000	5.2400e-003
<b>Total</b>	<b>3.0100e-003</b>	<b>0.1353</b>	<b>0.0223</b>	<b>1.6000e-004</b>	<b>5.9000e-004</b>	<b>1.4000e-004</b>	<b>7.3000e-004</b>	<b>1.6000e-004</b>	<b>1.4000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>14.9919</b>	<b>14.9919</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>15.0404</b>

#### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.4000e-004	0.0000	4.4000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8000e-004	0.0104	7.9400e-003	1.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>4.8000e-004</b>	<b>0.0104</b>	<b>7.9400e-003</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>6.0000e-005</b>	<b>5.0000e-004</b>	<b>1.3000e-004</b>	<b>6.0000e-005</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-003	0.1353	0.0223	1.6000e-004	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.4000e-004	3.0000e-004	0.0000	14.9867	14.9867	1.9400e-003	0.0000	15.0351
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2300e-003	5.2300e-003	0.0000	0.0000	5.2400e-003
<b>Total</b>	<b>3.0100e-003</b>	<b>0.1353</b>	<b>0.0223</b>	<b>1.6000e-004</b>	<b>5.9000e-004</b>	<b>1.4000e-004</b>	<b>7.3000e-004</b>	<b>1.6000e-004</b>	<b>1.4000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>14.9919</b>	<b>14.9919</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>15.0404</b>

### 3.5 Building Construction - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548

<b>Total</b>	<b>0.0479</b>	<b>0.4910</b>	<b>0.3772</b>	<b>5.7000e-004</b>		<b>0.0303</b>	<b>0.0303</b>		<b>0.0279</b>	<b>0.0279</b>	<b>0.0000</b>	<b>51.1502</b>	<b>51.1502</b>	<b>0.0162</b>	<b>0.0000</b>	<b>51.5548</b>
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**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0462	0.0134	5.0000e-005	3.3000e-004	8.0000e-005	4.1000e-004	1.0000e-004	8.0000e-005	1.7000e-004	0.0000	4.5981	4.5981	5.8000e-004	0.0000	4.6125
Worker	3.1500e-003	1.3500e-003	0.0181	2.0000e-005	1.0700e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.1000e-004	0.0000	1.4917	1.4917	9.0000e-005	0.0000	1.4941
<b>Total</b>	<b>4.5200e-003</b>	<b>0.0475</b>	<b>0.0315</b>	<b>7.0000e-005</b>	<b>1.4000e-003</b>	<b>1.0000e-004</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>6.0898</b>	<b>6.0898</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.1066</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0235	0.5351	0.3981	5.7000e-004		2.8900e-003	2.8900e-003		2.8900e-003	2.8900e-003	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
<b>Total</b>	<b>0.0235</b>	<b>0.5351</b>	<b>0.3981</b>	<b>5.7000e-004</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>		<b>2.8900e-003</b>	<b>2.8900e-003</b>	<b>0.0000</b>	<b>51.1502</b>	<b>51.1502</b>	<b>0.0162</b>	<b>0.0000</b>	<b>51.5548</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0462	0.0134	5.0000e-005	3.3000e-004	8.0000e-005	4.1000e-004	1.0000e-004	8.0000e-005	1.7000e-004	0.0000	4.5981	4.5981	5.8000e-004	0.0000	4.6125
Worker	3.1500e-003	1.3500e-003	0.0181	2.0000e-005	1.0700e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.1000e-004	0.0000	1.4917	1.4917	9.0000e-005	0.0000	1.4941
<b>Total</b>	<b>4.5200e-003</b>	<b>0.0475</b>	<b>0.0315</b>	<b>7.0000e-005</b>	<b>1.4000e-003</b>	<b>1.0000e-004</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>6.0898</b>	<b>6.0898</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.1066</b>

**3.6 Paving - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.0700e-003</b>	<b>0.0196</b>	<b>0.0179</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>2.3931</b>	<b>2.3931</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.4102</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
	Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0236	0.0236	0.0000	0.0000	0.0236
<b>Total</b>	<b>5.0000e-005</b>	<b>2.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.4300e-003	0.0237	0.0196	3.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>1.4300e-003</b>	<b>0.0237</b>	<b>0.0196</b>	<b>3.0000e-005</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>		<b>2.2000e-004</b>	<b>2.2000e-004</b>	<b>0.0000</b>	<b>2.3931</b>	<b>2.3931</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.4102</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0236	0.0236	0.0000	0.0000	0.0236
<b>Total</b>	<b>5.0000e-005</b>	<b>2.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>

### 3.7 Architectural Coating - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6365						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
<b>Total</b>	<b>0.6372</b>	<b>4.5900e-003</b>	<b>4.6000e-003</b>	<b>1.0000e-005</b>		<b>3.2000e-004</b>	<b>3.2000e-004</b>		<b>3.2000e-004</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6397</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0144	0.0144	0.0000	0.0000	0.0144
<b>Total</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>	<b>0.0144</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>

### Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6365					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.8000e-004	5.8800e-003	4.5800e-003	1.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
<b>Total</b>	<b>0.6368</b>	<b>5.8800e-003</b>	<b>4.5800e-003</b>	<b>1.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>		<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6397</b>

### Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0144	0.0144	0.0000	0.0000	0.0144
<b>Total</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>	<b>0.0144</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>

4846/4856 ECR Construction TAC - Santa Clara County, Annual

**4846/4856 ECR Construction TAC, Tier 4**  
**Santa Clara County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	112.00	Space	0.00	50,856.00	0
Condo/Townhouse	50.00	Dwelling Unit	0.73	88,919.00	143

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	58
<b>Climate Zone</b>	4			<b>Operational Year</b>	2020
<b>Utility Company</b>	Pacific Gas & Electric Company				
<b>CO2 Intensity (lb/MW hr)</b>	641.35	<b>CH4 Intensity (lb/MW hr)</b>	0.029	<b>N2O Intensity (lb/MW hr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - from "\_\_18-03-05 Mohr Clock DRB\_Lores.pdf" plan set

Construction Phase - Construction start date April 2019, default phase durations for a project of this type and size

Trips and VMT - 0.5mi trip lengths for TAC

Demolition - 10,000sf bldg demo, 20,500sf hardscape

Grading - 21,280 cy export

Construction Off-road Equipment Mitigation - Tier 4 engines for equip >25 hp. BAAQMD BMPs.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblGrading	MaterialExported	0.00	21,280.00
tblLandUse	LandUseSquareFeet	44,800.00	50,856.00
tblLandUse	LandUseSquareFeet	50,000.00	88,919.00
tblLandUse	LotAcreage	1.01	0.00
tblLandUse	LotAcreage	3.13	0.73
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	HaulingTripLength	20.00	0.50

tblTripsAndVMT	HaulingTripLength	20.00	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	VendorTripLength	7.30	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50
tblTripsAndVMT	WorkerTripLength	10.80	0.50

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.7011	0.7613	0.5036	9.1000e-004	0.0193	0.0354	0.0547	3.4700e-003	0.0327	0.0362	0.0000	82.8619	82.8619	0.0210	0.0000	83.3864
<b>Maximum</b>	<b>0.7011</b>	<b>0.7613</b>	<b>0.5036</b>	<b>9.1000e-004</b>	<b>0.0193</b>	<b>0.0354</b>	<b>0.0547</b>	<b>3.4700e-003</b>	<b>0.0327</b>	<b>0.0362</b>	<b>0.0000</b>	<b>82.8619</b>	<b>82.8619</b>	<b>0.0210</b>	<b>0.0000</b>	<b>83.3864</b>

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6588	0.4582	0.5286	9.1000e-004	5.9600e-003	1.4600e-003	7.4100e-003	1.2300e-003	1.4400e-003	2.6700e-003	0.0000	82.8618	82.8618	0.0210	0.0000	83.3863
<b>Maximum</b>	<b>0.6588</b>	<b>0.4582</b>	<b>0.5286</b>	<b>9.1000e-004</b>	<b>5.9600e-003</b>	<b>1.4600e-003</b>	<b>7.4100e-003</b>	<b>1.2300e-003</b>	<b>1.4400e-003</b>	<b>2.6700e-003</b>	<b>0.0000</b>	<b>82.8618</b>	<b>82.8618</b>	<b>0.0210</b>	<b>0.0000</b>	<b>83.3863</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>6.03</b>	<b>39.82</b>	<b>-4.96</b>	<b>0.00</b>	<b>69.14</b>	<b>95.87</b>	<b>86.45</b>	<b>64.55</b>	<b>95.59</b>	<b>92.61</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2019	6-30-2019	0.4773	0.2865
2	7-1-2019	9-30-2019	0.9427	0.7892
		<b>Highest</b>	<b>0.9427</b>	<b>0.7892</b>

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	4/1/2019	4/12/2019	5	10	
2	Site Preparation	Site Preparation	4/13/2019	4/15/2019	5	1	
3	Grading	Grading	4/16/2019	4/17/2019	5	2	
4	Building Construction	Building Construction	4/18/2019	9/4/2019	5	100	
5	Paving	Paving	9/5/2019	9/11/2019	5	5	
6	Architectural Coating	Architectural Coating	9/12/2019	9/18/2019	5	5	

**Acres of Grading (Site Preparation Phase): 0.5**

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 180,061; Residential Outdoor: 60,020; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area:

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	11.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Building Construction	5	57.00	14.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Demolition	4	10.00	0.00	139.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	2,660.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

Paving	7	18.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	0.50	0.50	0.50	LD_Mix	HDT_Mix	HHDT

### 3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Demolition - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0150	0.0000	0.0150	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.7700e-003	0.0430	0.0385	6.0000e-005		2.6900e-003	2.6900e-003		2.5600e-003	2.5600e-003	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>4.7700e-003</b>	<b>0.0430</b>	<b>0.0385</b>	<b>6.0000e-005</b>	<b>0.0150</b>	<b>2.6900e-003</b>	<b>0.0177</b>	<b>2.2700e-003</b>	<b>2.5600e-003</b>	<b>4.8300e-003</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	7.0700e-003	1.1600e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.7831	0.7831	1.0000e-004	0.0000	0.7857



Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0262	0.0262	0.0000	0.0000	0.0262
<b>Total</b>	<b>2.2000e-004</b>	<b>7.0900e-003</b>	<b>1.4800e-003</b>	<b>1.0000e-005</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8093</b>	<b>0.8093</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.8119</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3800e-003	0.0000	3.3800e-003	5.1000e-004	0.0000	5.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1800e-003	0.0227	0.0397	6.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	5.2601	5.2601	1.0000e-003	0.0000	5.2852
<b>Total</b>	<b>1.1800e-003</b>	<b>0.0227</b>	<b>0.0397</b>	<b>6.0000e-005</b>	<b>3.3800e-003</b>	<b>9.0000e-005</b>	<b>3.4700e-003</b>	<b>5.1000e-004</b>	<b>9.0000e-005</b>	<b>6.0000e-004</b>	<b>0.0000</b>	<b>5.2601</b>	<b>5.2601</b>	<b>1.0000e-003</b>	<b>0.0000</b>	<b>5.2852</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	7.0700e-003	1.1600e-003	1.0000e-005	3.0000e-005	1.0000e-005	4.0000e-005	1.0000e-005	1.0000e-005	2.0000e-005	0.0000	0.7831	0.7831	1.0000e-004	0.0000	0.7857
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.0000e-005	3.2000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0262	0.0262	0.0000	0.0000	0.0262
<b>Total</b>	<b>2.2000e-004</b>	<b>7.0900e-003</b>	<b>1.4800e-003</b>	<b>1.0000e-005</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>6.0000e-005</b>	<b>2.0000e-005</b>	<b>1.0000e-005</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.8093</b>	<b>0.8093</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.8119</b>

### 3.3 Site Preparation - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	4.4600e-003	2.0700e-003	0.0000		1.8000e-004	1.8000e-004		1.7000e-004	1.7000e-004	0.0000	0.4378	0.4378	1.4000e-004	0.0000	0.4413
<b>Total</b>	<b>3.6000e-004</b>	<b>4.4600e-003</b>	<b>2.0700e-003</b>	<b>0.0000</b>	<b>2.7000e-004</b>	<b>1.8000e-004</b>	<b>4.5000e-004</b>	<b>3.0000e-005</b>	<b>1.7000e-004</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.4378</b>	<b>0.4378</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4413</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.3100e-003	1.3100e-003	0.0000	0.0000	1.3100e-003
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>	<b>1.3100e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3100e-003</b>

#### Mitigated Construction On-Site



Off-Road	9.5000e-004	8.6000e-003	7.6900e-003	1.0000e-005		5.4000e-004	5.4000e-004		5.1000e-004	5.1000e-004	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>9.5000e-004</b>	<b>8.6000e-003</b>	<b>7.6900e-003</b>	<b>1.0000e-005</b>	<b>1.9600e-003</b>	<b>5.4000e-004</b>	<b>2.5000e-003</b>	<b>6.0000e-004</b>	<b>5.1000e-004</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-003	0.1353	0.0223	1.6000e-004	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.4000e-004	3.0000e-004	0.0000	14.9867	14.9867	1.9400e-003	0.0000	15.0351
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2300e-003	5.2300e-003	0.0000	0.0000	5.2400e-003
<b>Total</b>	<b>3.0100e-003</b>	<b>0.1353</b>	<b>0.0223</b>	<b>1.6000e-004</b>	<b>5.9000e-004</b>	<b>1.4000e-004</b>	<b>7.3000e-004</b>	<b>1.6000e-004</b>	<b>1.4000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>14.9919</b>	<b>14.9919</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>15.0404</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.4000e-004	0.0000	4.4000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4000e-004	4.5400e-003	7.9400e-003	1.0000e-005		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	1.0520	1.0520	2.0000e-004	0.0000	1.0570
<b>Total</b>	<b>2.4000e-004</b>	<b>4.5400e-003</b>	<b>7.9400e-003</b>	<b>1.0000e-005</b>	<b>4.4000e-004</b>	<b>2.0000e-005</b>	<b>4.6000e-004</b>	<b>1.3000e-004</b>	<b>2.0000e-005</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>1.0520</b>	<b>1.0520</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>1.0570</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.0000e-003	0.1353	0.0223	1.6000e-004	5.9000e-004	1.4000e-004	7.3000e-004	1.6000e-004	1.4000e-004	3.0000e-004	0.0000	14.9867	14.9867	1.9400e-003	0.0000	15.0351
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.2300e-003	5.2300e-003	0.0000	0.0000	5.2400e-003
<b>Total</b>	<b>3.0100e-003</b>	<b>0.1353</b>	<b>0.0223</b>	<b>1.6000e-004</b>	<b>5.9000e-004</b>	<b>1.4000e-004</b>	<b>7.3000e-004</b>	<b>1.6000e-004</b>	<b>1.4000e-004</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>14.9919</b>	<b>14.9919</b>	<b>1.9400e-003</b>	<b>0.0000</b>	<b>15.0404</b>

**3.5 Building Construction - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0479	0.4910	0.3772	5.7000e-004		0.0303	0.0303		0.0279	0.0279	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
<b>Total</b>	<b>0.0479</b>	<b>0.4910</b>	<b>0.3772</b>	<b>5.7000e-004</b>		<b>0.0303</b>	<b>0.0303</b>		<b>0.0279</b>	<b>0.0279</b>	<b>0.0000</b>	<b>51.1502</b>	<b>51.1502</b>	<b>0.0162</b>	<b>0.0000</b>	<b>51.5548</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
	Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0462	0.0134	5.0000e-005	3.3000e-004	8.0000e-005	4.1000e-004	1.0000e-004	8.0000e-005	1.7000e-004	0.0000	4.5981	4.5981	5.8000e-004	0.0000	4.6125
Worker	3.1500e-003	1.3500e-003	0.0181	2.0000e-005	1.0700e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.1000e-004	0.0000	1.4917	1.4917	9.0000e-005	0.0000	1.4941
<b>Total</b>	<b>4.5200e-003</b>	<b>0.0475</b>	<b>0.0315</b>	<b>7.0000e-005</b>	<b>1.4000e-003</b>	<b>1.0000e-004</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>6.0898</b>	<b>6.0898</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.1066</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0119	0.2240	0.3981	5.7000e-004		9.3000e-004	9.3000e-004		9.3000e-004	9.3000e-004	0.0000	51.1502	51.1502	0.0162	0.0000	51.5548
<b>Total</b>	<b>0.0119</b>	<b>0.2240</b>	<b>0.3981</b>	<b>5.7000e-004</b>		<b>9.3000e-004</b>	<b>9.3000e-004</b>		<b>9.3000e-004</b>	<b>9.3000e-004</b>	<b>0.0000</b>	<b>51.1502</b>	<b>51.1502</b>	<b>0.0162</b>	<b>0.0000</b>	<b>51.5548</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3700e-003	0.0462	0.0134	5.0000e-005	3.3000e-004	8.0000e-005	4.1000e-004	1.0000e-004	8.0000e-005	1.7000e-004	0.0000	4.5981	4.5981	5.8000e-004	0.0000	4.6125

Worker	3.1500e-003	1.3500e-003	0.0181	2.0000e-005	1.0700e-003	2.0000e-005	1.1000e-003	2.9000e-004	2.0000e-005	3.1000e-004	0.0000	1.4917	1.4917	9.0000e-005	0.0000	1.4941
<b>Total</b>	<b>4.5200e-003</b>	<b>0.0475</b>	<b>0.0315</b>	<b>7.0000e-005</b>	<b>1.4000e-003</b>	<b>1.0000e-004</b>	<b>1.5100e-003</b>	<b>3.9000e-004</b>	<b>1.0000e-004</b>	<b>4.8000e-004</b>	<b>0.0000</b>	<b>6.0898</b>	<b>6.0898</b>	<b>6.7000e-004</b>	<b>0.0000</b>	<b>6.1066</b>

### 3.6 Paving - 2019

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>2.0700e-003</b>	<b>0.0196</b>	<b>0.0179</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.0300e-003</b>	<b>1.0300e-003</b>	<b>0.0000</b>	<b>2.3931</b>	<b>2.3931</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.4102</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0236	0.0236	0.0000	0.0000	0.0236
<b>Total</b>	<b>5.0000e-005</b>	<b>2.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.5000e-004	0.0128	0.0196	3.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>8.5000e-004</b>	<b>0.0128</b>	<b>0.0196</b>	<b>3.0000e-005</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>		<b>1.5000e-004</b>	<b>1.5000e-004</b>	<b>0.0000</b>	<b>2.3931</b>	<b>2.3931</b>	<b>6.8000e-004</b>	<b>0.0000</b>	<b>2.4102</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-005	2.9000e-004	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0236	0.0236	0.0000	0.0000	0.0236
<b>Total</b>	<b>5.0000e-005</b>	<b>2.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>	<b>0.0236</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0236</b>

**3.7 Architectural Coating - 2019**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Category	tons/yr										MT/yr					
Archit. Coating	0.6365					0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	6.7000e-004	4.5900e-003	4.6000e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397
<b>Total</b>	<b>0.6372</b>	<b>4.5900e-003</b>	<b>4.6000e-003</b>	<b>1.0000e-005</b>		<b>3.2000e-004</b>	<b>3.2000e-004</b>		<b>3.2000e-004</b>	<b>3.2000e-004</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6397</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0144	0.0144	0.0000	0.0000	0.0144
<b>Total</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>	<b>0.0144</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6365					0.0000	0.0000			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.4000e-004	2.6500e-003	4.5800e-003	1.0000e-005		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	0.6383	0.6383	5.0000e-005	0.0000	0.6397

<b>Total</b>	<b>0.6367</b>	<b>2.6500e-003</b>	<b>4.5800e-003</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>		<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.6383</b>	<b>0.6383</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.6397</b>
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**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.0000e-005	1.7000e-004	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0144	0.0144	0.0000	0.0000	0.0144
<b>Total</b>	<b>3.0000e-005</b>	<b>1.0000e-005</b>	<b>1.7000e-004</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>	<b>0.0144</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0144</b>

4856 El Camino Real, Los Altos, CA								4856 El Camino Real, Los Altos, CA										
DPM Emissions and Modeling Emission Rates								PM2.5 Fugitive Dust Emissions for Modeling										
Emissions Model	Year	Activity	DPM (ton/year)	Area Source	DPM Emissions			Modeled Area (m <sup>2</sup> )	DPM Emission Rate (g/s/m <sup>2</sup> )	Construction Year	Activity	Area Source	PM2.5 Emissions				Modeled Area (m <sup>2</sup> )	PM2.5 Emission Rate (g/s/m <sup>2</sup> )
					(lb/yr)	(lb/hr)	(g/s)						(ton/year)	(lb/yr)	(lb/hr)	(g/s)		
	2019	Construction	0.0354	1 DPM	70.8	0.02155	2.72E-03	2,898	9.37E-07	2019	Construction	FUG	0.0035	6.9	0.00211	2.66E-04	2,898	9.19E-08
	<b>Total</b>		<b>0.0354</b>		<b>70.8</b>	<b>0.0216</b>	<b>0.0027</b>						<b>0.0035</b>	<b>6.9</b>	<b>0.0021</b>	<b>0.0003</b>		
			<i>Operation Hours</i>									<i>Operation Hours</i>						
				hr/day = 9 (7am - 4pm)									hr/day = 9 (7am - 4pm)					
				days/yr = 365									days/yr = 365					
				hours/year = 3285									hours/year = 3285					

### 4856 El Camino Real, Los Altos, CA - Health Impact Summary

#### Maximum Impacts at Construction MEI Location

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m <sup>3</sup> )
	Exhaust PM10/DPM (µg/m <sup>3</sup> )	Fugitive PM2.5 (µg/m <sup>3</sup> )	Child	Adult		
	2019	0.2623	0.0352	36.6	0.8	0.052
<b>Maximum</b>	0.2623	0.0352	36.6	0.8	0.052	0.30

### 4856 El Camino Real, Los Altos, CA - Health Impact Summary

#### Maximum Impacts at Construction PM2.5 MEI Location

Emissions Year	Maximum Concentrations		Cancer Risk (per million)		Hazard Index (-)	Maximum Annual PM2.5 Concentration (µg/m <sup>3</sup> )
	Exhaust PM10/DPM (µg/m <sup>3</sup> )	Fugitive PM2.5 (µg/m <sup>3</sup> )	Child	Adult		
	2019	0.2609	0.0404	36.4	0.7	0.052
<b>Maximum</b>	0.2609	0.0404	36.4	0.7	0.052	0.30

**4856 El Camino Real, Los Altos, CA**

**Maximum DPM Cancer Risk Calculations From Construction**

**Impacts at Off-Site Receptors-1.5 meter**

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)<sup>-1</sup>  
 ASF = Age sensitivity factor for specified age group  
 ED = Exposure duration (years)  
 AT = Averaging time for lifetime cancer risk (years)  
 FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C<sub>air</sub> x DBR x A x (EF/365) x 10<sup>-6</sup>

Where: C<sub>air</sub> = concentration in air (µg/m<sup>3</sup>)  
 DBR = daily breathing rate (L/kg body weight-day)  
 A = Inhalation absorption factor  
 EF = Exposure frequency (days/year)  
 10<sup>-6</sup> = Conversion factor

**Values**

Age --> Parameter	Infant/Child				Adult
	3rd Trimester	0 - 2	2 - 9	2 - 16	16 - 30
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	0.85	0.85	0.72	0.72	0.73

\* 95th percentile breathing rates for infants and 80th percentile for children and adults

**Construction Cancer Risk by Year - Maximum Impact Receptor Location**

Exposure Year	Exposure Duration (years)	Age	Infant/Child - Exposure Information			Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Fugitive PM2.5	Total PM2.5	
			DPM Conc (ug/m3)		Age		Modeled		Age			
			Year	Annual	Sensitivity Factor		Year	Annual	Sensitivity Factor			Risk (per million)
0	0.25	-0.25 - 0*		0.0000	10	0.00	0.0000	-	-			
1	1	0 - 1	2019	0.2623	10	36.62	2019	0.2623	1	0.75	0.0352	0.298
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00		
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
<b>Total Increased Cancer Risk</b>						<b>36.62</b>				<b>0.75</b>		

\* Third trimester of pregnancy

**4856 El Camino Real, Los Altos, CA**

**Maximum DPM Cancer Risk Calculations From Construction**

**Impacts at Off-Site Receptors-1.5 meter, PM2.5 MEI**

Cancer Risk (per million) = CPF x Inhalation Dose x ASF x ED/AT x FAH x 1.0E6

Where: CPF = Cancer potency factor (mg/kg-day)<sup>-1</sup>  
 ASF = Age sensitivity factor for specified age group  
 ED = Exposure duration (years)  
 AT = Averaging time for lifetime cancer risk (years)  
 FAH = Fraction of time spent at home (unitless)

Inhalation Dose = C<sub>air</sub> x DBR x A x (EF/365) x 10<sup>-6</sup>

Where: C<sub>air</sub> = concentration in air (µg/m<sup>3</sup>)  
 DBR = daily breathing rate (L/kg body weight-day)  
 A = Inhalation absorption factor  
 EF = Exposure frequency (days/year)  
 10<sup>-6</sup> = Conversion factor

**Values**

Age -> Parameter	Infant/Child				Adult
	3rd Trimester	0 - 2	2 - 9	2 - 16	16 - 30
ASF =	10	10	3	3	1
CPF =	1.10E+00	1.10E+00	1.10E+00	1.10E+00	1.10E+00
DBR* =	361	1090	631	572	261
A =	1	1	1	1	1
EF =	350	350	350	350	350
AT =	70	70	70	70	70
FAH =	0.85	0.85	0.72	0.72	0.73

\* 95th percentile breathing rates for infants and 80th percentile for children and adults

**Construction Cancer Risk by Year - Maximum Impact Receptor Location**

Exposure Year	Exposure Duration (years)	Infant/Child - Exposure Information				Infant/Child Cancer Risk (per million)	Adult - Exposure Information			Fugitive PM2.5	Total PM2.5	
		Age	DPM Conc (ug/m3)		Age Sensitivity Factor		Modeled	Age Sensitivity Factor	Adult Cancer Risk (per million)			
			Year	Annual								Year
0	0.25	-0.25 - 0*		0.0000	10	0.00		0.0000	-	-		
1	1	0 - 1	2019	0.2609	10	36.42	2019	0.2609	1	0.75	0.0404	0.301
2	1	1 - 2		0.0000	10	0.00		0.0000	1	0.00		
3	1	2 - 3		0.0000	3	0.00		0.0000	1	0.00		
4	1	3 - 4		0.0000	3	0.00		0.0000	1	0.00		
5	1	4 - 5		0.0000	3	0.00		0.0000	1	0.00		
6	1	5 - 6		0.0000	3	0.00		0.0000	1	0.00		
7	1	6 - 7		0.0000	3	0.00		0.0000	1	0.00		
8	1	7 - 8		0.0000	3	0.00		0.0000	1	0.00		
9	1	8 - 9		0.0000	3	0.00		0.0000	1	0.00		
10	1	9 - 10		0.0000	3	0.00		0.0000	1	0.00		
11	1	10 - 11		0.0000	3	0.00		0.0000	1	0.00		
12	1	11 - 12		0.0000	3	0.00		0.0000	1	0.00		
13	1	12 - 13		0.0000	3	0.00		0.0000	1	0.00		
14	1	13 - 14		0.0000	3	0.00		0.0000	1	0.00		
15	1	14 - 15		0.0000	3	0.00		0.0000	1	0.00		
16	1	15 - 16		0.0000	3	0.00		0.0000	1	0.00		
17	1	16-17		0.0000	1	0.00		0.0000	1	0.00		
18	1	17-18		0.0000	1	0.00		0.0000	1	0.00		
19	1	18-19		0.0000	1	0.00		0.0000	1	0.00		
20	1	19-20		0.0000	1	0.00		0.0000	1	0.00		
21	1	20-21		0.0000	1	0.00		0.0000	1	0.00		
22	1	21-22		0.0000	1	0.00		0.0000	1	0.00		
23	1	22-23		0.0000	1	0.00		0.0000	1	0.00		
24	1	23-24		0.0000	1	0.00		0.0000	1	0.00		
25	1	24-25		0.0000	1	0.00		0.0000	1	0.00		
26	1	25-26		0.0000	1	0.00		0.0000	1	0.00		
27	1	26-27		0.0000	1	0.00		0.0000	1	0.00		
28	1	27-28		0.0000	1	0.00		0.0000	1	0.00		
29	1	28-29		0.0000	1	0.00		0.0000	1	0.00		
30	1	29-30		0.0000	1	0.00		0.0000	1	0.00		
<b>Total Increased Cancer Risk</b>						<b>36.42</b>				<b>0.75</b>		

\* Third trimester of pregnancy



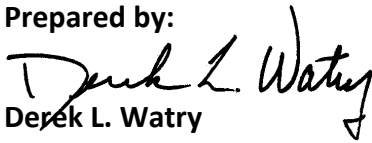
**ALTOS ONE**  
**4846/4856 EL CAMINO REAL**  
**LOS ALTOS, CALIFORNIA**  
CCR TITLE 24 NOISE STUDY  
March 2018 Update

Revised March 6, 2018

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**WI Project 16-088**

## **1 Introduction**

This report presents an acoustical evaluation of the exterior noise and exterior to interior sound isolation for the proposed 4856 El Camino Real multi-family residential project to be constructed along El Camino Real between Los Altos Square and Jordan Avenue in the City of Los Altos, California. The proposed project is a five-story residential development of 35 units over one level of parking garage.

The purpose of this noise study is to assess the exterior noise environment of the subject property and to provide recommendations on the control of exterior-to-interior noise with respect to the requirements of the California Code of Regulations (CCR), Title 24 (included in the California Building Code Section 1207 - Sound Transmission Control) and the City of Los Altos General Plan Environmental Management Element. This report provides a description of the environmental noise survey methodology, a discussion of applicable noise standards, noise survey results, future noise level projections, and exterior-to-interior noise mitigation recommendations.

The project site's existing noise environment is primarily dominated by vehicle traffic along El Camino Real (State Route 82) on the north side, and by far away sources such as Showers Drive to the northwest. The City of Los Altos General Plan indicates that traffic volumes along El Camino Real are not expected to increase over the next 10 years. As such, the measured noise levels at the site today are expected to persist for the next 10 years.

Noise mitigation recommendations for project glazing, exterior assemblies, and exterior doors are presented, along with important installation details.

Inter-unit noise mitigation provisions, also required by CCR Title 24, include acoustical design and installation details for party walls, corridor walls, floor-ceiling assemblies, and other components. This design work is not included in this report.

### **1.1 2018 Update**

This report updates the building shell noise insulation analysis to reflect the new floorplans of 4856 El Camino Real. The current study is based on the drawing set dated 5 March 2018 by SDG Architects, Inc. The changes in design were primarily internal – some of the unit floorplans were altered and the number of units per floor changed. The building footprint was not significantly altered, and the size of the gap between this project and the neighboring project did not change. The revised glazing recommendations for the exterior walls of the building incorporates the additional units added to the floorplan drawings.

## 2 Noise Level Descriptors

The noise exposure at a site, measured using the Day-Night Level ( $L_{dn}$ ) metric, represents the A-weighted equivalent continuous noise exposure level for a 24-hour period and includes a 10 decibel (dB) penalty added to sound levels during nighttime hours (10:00 pm to 7:00 am). The term "Equivalent Continuous Sound Exposure Level" ( $L_{eq}$ ) refers to a decibel level that equals the level of a steady noise containing the same total sound energy as the fluctuating community noise level for a given period of time. The 10 dB penalty added to sound levels during the nighttime hours is meant to account for higher sensitivity of people to noise during nighttime and evening hours, relative to the daytime. The A-weighted scale, used for community noise measurements, causes the measuring instrumentation to respond to noise in a manner closely correlated with the auditory response of the average person. A-weighting is implicit in noise levels reported in terms of  $L_{dn}$ .

More complete definitions for these and other acoustical terms can be found in the "Description of Acoustical Terms Relevant to Title 24 Projects" at the end of this report.

## 3 Applicable Noise Standards – Noise Study Criteria

Noise Insulation Requirements. California Code of Regulations (CCR) Title 24 – included in the amended California Building Code (CBC), Section 1207, "Sound Transmission" – specifies the maximum level of interior noise due to exterior sources allowable for new residential developments. Division II of the CBC, Appendix 12 presents acoustical requirements in general terms, with more specific language provided in Division IIA of Appendix 12. CCR Title 24 also defers to local requirements where applicable.

CCR Title 24 requires that the building be designed to have sound insulation so that, with all exterior doors and windows in the closed position, the interior noise level attributable to exterior sources shall not exceed an annual  $L_{dn}$  of 45 in any habitable room.

The Natural Environment and Hazards Element of the Los Altos General Plan reference the State of California noise insulation standards, explicitly citing the 45  $L_{dn}$  interior noise standard for residential space. The Element requires acoustical studies such as this one for developments where the noise level exceeds 60  $L_{dn}$  from industrial or transportation sources. The study must demonstrate compliance with the interior noise standard.

The Natural Environment & Hazards Element of the City of Los Altos General Plan also states that new development can be made compatible with the noise environment by utilizing the Land Use Compatibility Guidelines. Land uses and their compatibility with various noise criteria, as adopted by the City of Los Altos, is shown graphically in Figure 1, below, reproduced from the Natural Environment & Hazards Element.

As seen in Figure 1, residential development is considered Normally Acceptable in areas where the exterior noise exposure is less than 60  $L_{dn}$ . Areas between 60 and 70  $L_{dn}$  are considered Conditionally Acceptable, and detailed noise analysis is required to substantiate that proper noise reduction measures are included in the project design. Areas between 70 and 75  $L_{dn}$  are considered Normally Unacceptable for new residential development, but is allowed provided that a detailed







noise analysis is done and adequate noise reduction measurements are included in the project design.

The City of Los Altos Municipal Code at Chapter 6, Section 16.050, Exterior Noise Limits, contains absolute noise limits for various categories of land use under differing conditions. For the purpose of this study, these limits will be applied to HVAC and other mechanical noises associated with the project, and we are assuming that this equipment will, at times, have duty cycles that exceeded 30 minutes of use per hour. As such, the most restrictive noise limits will apply. At the neighboring commercial properties (C Zoning), the applicable limits are 60 dBA between 10 PM and 7 AM and 65 dBA between 7 AM and 10 PM [Code Section 6.16.050, Table 1]. For the neighboring residential units, the limits in Section 16.050 Table 1 are modified because they border another type of zoning. Per 6.16.050.A.4, when two zones abut, “the noise level limit applicable to the lower noise zone, plus five dB, shall apply.” As such, the applicable limits at the residential properties are 55 dBA between 10 PM and 7 AM and 60 dBA between 7 AM and 10 PM.

Land Use	Community Noise Exposure (Ldn or CNEL)					
	55	60	65	70	75	80
Residential	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging – Motel, Hotel	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Course, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial, and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Normally Unacceptable
	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Clearly Unacceptable	Clearly Unacceptable

Source: Modified by CBA from 1998 State of California General Plan Guidelines.

-  Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.
-  Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.
-  Normally Unacceptable: New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.
-  Clearly Unacceptable: New construction or development should not be undertaken.

**Figure 1: Land Use/Noise Compatibility Chart (from Los Altos' Natural Environment & Hazards Element of the 2002 General Plan, page 10)**

Ventilation Requirements. Provision of adequate ventilation falls under the purview of the project mechanical engineer. However, it is related to acoustics because the requirement for acoustically-rated windows also triggers a requirement for mechanical ventilation. Specifically, for areas of the Project where the exterior noise exposure exceeds 60  $L_{dn}$ , an alternative means of ventilation is usually required. We recommend you bring this to the attention of the project mechanical engineer.

#### 4 Environmental Noise Survey Methodology

Wilson Ihrig also prepared the environmental noise study for the neighboring project at 4880 El Camino Real. In email correspondence with Zachary Dahl of the City of Los Altos Community Development Department, it was confirmed that the environmental noise measurements made for that project in February 2016 could serve as the basis for the design of this project. The environmental noise survey consisted of both short-term noise recordings and long-term noise measurement efforts at several locations in the project vicinity. Table I summarizes the noise measurement locations, with distances to adjacent sources and the types of measurements performed at each. Figure 2 shows the measurement locations (and the building at 4880 El Camino Real at the time of measurement).

##### Long-Term Measurements

Long-term, statistical noise levels were measured at the site by means of four precision, calibrated, Type 1 logging sound level meters left unattended at the site to monitor complete days between Thursday, 18 February 2016 and Tuesday, 23 February 2016, inclusive. Long-term meters were placed at the locations indicated in Table I and Figure 2 (indicated as LT-1 to LT-4), where they could be secured to light poles and a tree. Microphone heights are approximately 12 ft to 15 ft above grade in this mounting arrangement. The sound meters monitored noise levels continuously during the survey period, providing hourly-averaged and statistical noise levels over six complete days. The hourly equivalent noise data ( $L_{eq}$ ) were then used to calculate the daily and typical Day-Night Levels ( $L_{dn}$ ), as required by the CCR Title 24 and the City of Los Altos General Plan Natural Environment & Hazards Element.

##### Short-Term Measurement

At short-term location ST, calibrated, digital recordings were made on Tuesday, 17 February 2016 for approximately 10 minutes to determine the spectral content of the noise.

**Table I: Environmental Noise Survey Measurement Locations**

Label	Measurement Type	Location Description
LT-1	Long-Term	Light Pole at North Property Line ~ 75' from El Camino Real CL
LT-2 & ST	Long & Short-Term	Light Pole at North Property Line ~ 72' from El Camino Real CL
LT-3	Long-Term	Tree at East Property Line ~ 175' from El Camino Real CL
LT-4	Long-Term	Light Pole at South Property Line ~ 283' from El Camino Real CL

## 5 Environmental Noise Survey Results

Exterior-to-interior noise isolation requirements were determined by evaluating the existing and projected future noise levels at the project site.

### 5.1 Measured Existing Noise Levels

The results of the environmental noise survey reveal that existing noise levels across the area range from 71  $L_{dn}$  near El Camino Real to 58  $L_{dn}$  near the rear property line. This puts the majority of the site in the Conditionally Acceptable category for residential land use. The day-night noise levels over the course of the long-term noise survey are summarized by location in Table II. Figure 3A to 3D present the hourly averaged  $L_{eq}$  and calculated  $L_{dn}$  levels. The data show marginally higher noise levels on weekdays, when car and truck traffic in the vicinity are presumably greater. Lower levels are particularly evident on weekend mornings, due to the absence of a defined commute period.

The noise frequency spectrum provided by the short-term (ST) measurement is consistent with noise environments dominated by vehicle traffic. The spectrum is shown Figure 4.

**Table II: Summary of Measured Existing Day Night Noise Levels By Measurement Location**  
(See also Figure 3A to Figure 3D)

	Location LT-1	Location LT-2	Location LT-3	Location LT-4
Ldn – Tue, 18 Feb 2016	71	72	62	59
Ldn – Wed, 19 Feb	70	72	62	58
Ldn – Thu, 20 Feb	69	70	60	57
Ldn – Fri, 21 Feb	69	70	61	57
Ldn – Sat, 22 Feb	70	72	62	58
Ldn – Sun, 23 Feb	70	71	62	59
Existing Average Ldn	<b>70</b>	<b>71</b>	<b>61</b>	<b>58</b>

## 5.2 Projected Future Noise Levels

According to the City of Los Altos General Plan, average daily traffic along El Camino Real in front of the project site is expected to increase from 44,500 vehicles in 2001 (Table NEH-2) to 50,000 in 2025 (Table NEH-3). The mix of automobiles, medium trucks, and heavy truck is not expected to change. Given this information, the expected increase in noise due to traffic increase over the 24 year period is 0.5 dB. However, because the current date is 16 years into the 24 year period, it is expected that 0.3 dB of this increase has already occurred, implying that the increase between noise and 2025 or 2026 is on the order of 0.2 dB, a negligible amount. Therefore, for the purposes of this study, future noise levels are taken to be the same as today.

The noise contours are essentially the same as those developed for the 4880 El Camino Real project. At the west façade of Altos One on the 4856 El Camino Real parcel, this should be self-evident because it is very analogous to the east façade of 4880 El Camino Real in terms of exposure to the roadway. The west façade of the current project on the 4856 El Camino Real parcel will be well shielded from the roadway so the noise levels there will be at least 5 dB lower which will put them well below the  $L_{dn}$  60 level at which noise mitigation is required.

The east façade of Altos One will face the equally large west façade of 4880 El Camino Real, the two buildings being separate by 13 to 18 feet at various points. This will cause the space to be somewhat reverberant which will increase noise levels by 3 to 6 dB depending on how “deep” one is in the gap. However, the incident roadway noise in the narrow gap between the buildings will be less than if the façade were wholly exposed to El Camino Real, again depending on how deep one is in the gap. Using the standard method of assessing the noise from a finite section of roadway, we estimate that the noise level will be 6 dB down at a distance of 14 feet from the front façade of the building (see Endnote 1). Beyond that, the noise level would be even less. Therefore, as a practical matter, the environmental noise levels in the gap between the two buildings will be approximately the same or less as on the fully exposed west façade.

Figures 5A to 5D shows the noise contours utilized for determination of glazing requirements.

## 6 Noise Mitigation Recommendations

### 6.1 Exterior Glazing

Windows are inherently the weak link of a residential project’s exterior acoustical envelope. Therefore, proper selection and installation of exterior glazing elements are paramount to achieving CCR Title 24 interior noise limits. Frames of windows and doors must be caulked with resilient, acoustical sealant to provide an airtight seal. Also, a bead of resilient, acoustical caulking must be applied to window casings before installation. Manufacturer’s instructions for installation of acoustically rated window assemblies must be followed carefully, so that installed windows retain their rated acoustical performance.

Recommendations are presented in terms of the Outdoor-Indoor Transmission Class (OITC) and Sound Transmission Class (STC) acoustical performance ratings, either of which may be used to specify windows for the project, though the OITC rating is preferable. The window manufacturer

shall provide laboratory test data for the specific window assembly types submitted for this project. Laboratory test reports should include third octave band sound isolation performance data for the specific glazing system proposed. Window manufacturers may provide alternative glazing configurations which might be more appropriate for this project, provided that these possess the minimum recommended OITC ratings.

Traditionally, manufacturers of exterior doors and windows have used the single-number Sound Transmission Class (STC) metric to rate the acoustical performance of their products. However, STC is a metric optimized for the spectral shape (or tonal quality) of human speech, as it was originally developed as a means to rate the degree of sound isolation between dwelling units in the late 1950's. The Outdoor-Indoor Transmission Class (OITC), as defined in the ASTM Standard E1332, is the *preferred metric* for rating the sound performance of building shell materials. OITC ratings are tied to a typical noise spectrum shape from transportation sources, which are rich in low frequency, bass-type sounds, as opposed to the frequencies of human speech or television audio. Both OITC and STC rating values are calculated from 1/3-octave band transmission loss data for specific building shell components.

Our acoustical glazing recommendations for the project are shown in Figure 6A for Floor 1, Figure 6B for Floor 2, Figure 6C for Floors 3, and Figure 6D for Floors 4 and 5. Two classes of exterior glazing are indicated for windows and balcony doors in Figures 6A to 6D:

- Glazing Class I with a minimum OITC 24 / STC 32 rating
- Glazing Class II with a minimum OITC 22 / STC 30 rating

The recommendations assume that the condominium units will have hard surface finishes, leading to a high level of reverberation in comparison to rooms that are carpeted. If the units in the project are going to be carpeted, the recommend OITC/STC ratings may be relaxed by 2 points. If this is done, the projects Conditions, Covenants, and Restrictions should prevent future owners from replacing the carpet with hardwood flooring.

These recommendations are for habitable rooms within residential units ("R" occupancy) and to the Gathering/Family Playroom on Floor 2 that directly faces El Camino Real. They do not apply to other common rooms and areas, corridors, public stair wells, storage areas, commercial spaces, garages, etc. All other façade sections where no specific OITC/STC recommendations are given do not require acoustically-rated glazing.

Many glazing configurations are produced that meet the above minimum requirements. In addition, glazing systems with dissimilar thickness panes are strongly recommended, unless one of the panes has *laminated glass*.

## 6.2 Exterior Walls

The proposed main exterior wall construction per SDG Architects is one layer of 5/8" gypsum board on the interior face of the wall, 2x6 wood studs, R19 fiberglass batt insulation in the stud cavity, and either stucco, wood, or metal panels on the exterior. Assemblies similar to the assemblies listed above have been tested to have a sound insulation rating of at least OITC 37 (comparable to STC

46), which will not compromise the sound isolation of the building envelope if all gaps are well-sealed with non-hardening, acoustical caulk.

The ultimate degree of sound isolation provided by the building shell is highly dependent on the quality of workmanship and attention to detail that is followed during construction. The following recommendations are aimed at delivering the full sound isolating potential of the building shell:

- If possible, avoid electrical outlets in exterior walls. If this is not possible, apply outlet box pads such as those manufactured by Lowry's or Dottie (#68 pads) to all electrical boxes in exterior walls, as one would in all corridor, party and other sound rated interior walls. Thoroughly caulk around all edges of electrical outlet boxes and other penetrations with non-hardening acoustical sealant.
- Carefully caulk the intersection between the interior layer of gypsum wall board at the floor and ceiling with resilient, non-hardening acoustical sealant.
- Fully fill the stud cavities with batt insulation, as the improvement in sound isolation provided by the partition is directly proportional to the percentage of the cavity filled with insulation. For exterior walls constructed with 8" studs, the use of two layers of slightly compressed R-13 batt insulation is highly recommended.

### **6.3 Supplemental Ventilation**

As mentioned above, any habitable room that is required to have an acoustically-rated window (see Figures 6A through 6D) are also required to provide for alternative ventilation so that the windows may remain closed for noise reduction purposes. This requirement should be addressed by the project mechanical engineer.

Supplemental ventilation can be provided in several forms. A ducted fresh air system could be incorporated into the HVAC system. Other projects have used passive, ducted air inlets that extend from the building's rooftop to soffits within each unit. Ducted air inlets should be acoustically lined through the first 10 feet in length away from the exterior opening and incorporate one or more 90-degree bends between openings, so as to not compromise the noise insulating performance of the residential unit's exterior envelope. Instead of serving unit stacks with a vertical duct drawing air from the room, air could also be drawn through the floor-ceiling assembly to a register in the ceiling. In either system, ducts should be located within gypsum shafts so as to not create a direct noise path from exterior penetration to the unit interior. We will gladly review and comment on designs provided by the project's architect or mechanical engineer.

Another means of providing fresh air ventilation without compromising the degree of acoustical isolation is to incorporate a "Z-duct" fresh air intake device in the building façade. If a Z-duct method is chosen to provide outside air intake at individual units, the vertical duct should be at least 5 ft in length, and lined with 1/2" or 1" thick acoustical liner. These requirements are essential to make the Z-duct provide adequate noise insulation and not compromise the noise insulating performance of the window and wall assemblies. Commercially available units include the Vibro-Acoustics model CT silencer (<http://www.vibro-acoustics.com/>).

## 6.4 Mechanical Equipment Noise Control

The project design is not far enough along at this point to select mechanical equipment that will service the building. Such equipment will include HVAC equipment and may include an emergency backup generator. The current plans indicate that the mechanical equipment will be located at the rooftop level which will cause most of the noise to be projected upward. However, during design of the mechanical systems, the noise levels from the various pieces of equipment on the rooftop should be calculated to ensure compliance with The City of Los Altos Municipal Code, Chapter 6, Section 16.050, Exterior Noise Limits. Rooftop equipment will also require vibration isolation from the rooftop to prevent structure-borne noise from propagating into the units below.

No equipment is anticipated for a project of this scale that would make meeting the applicable noise limits with standard noise control measures difficult nor from preventing unacceptable levels of structure-borne noise in the units below.

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## Endnotes:

1. The formula for the sound pressure of a road of finite length at a receiver a distance D away is:

$$p^2 = \frac{\rho_0 c \Pi \Theta}{\pi D}$$

$p$  = sound pressure

$\rho_0 c$  = acoustic impedance of air

$\Pi$  = the sound power of the roadway noise

$\Theta$  = the angle between the receiver and the road (radians)

$D$  = the distance between the receiver and the road

(Reference: Lyon, R. H., *Lectures in Transportation Noise*, Grozier Publishing, 1973)

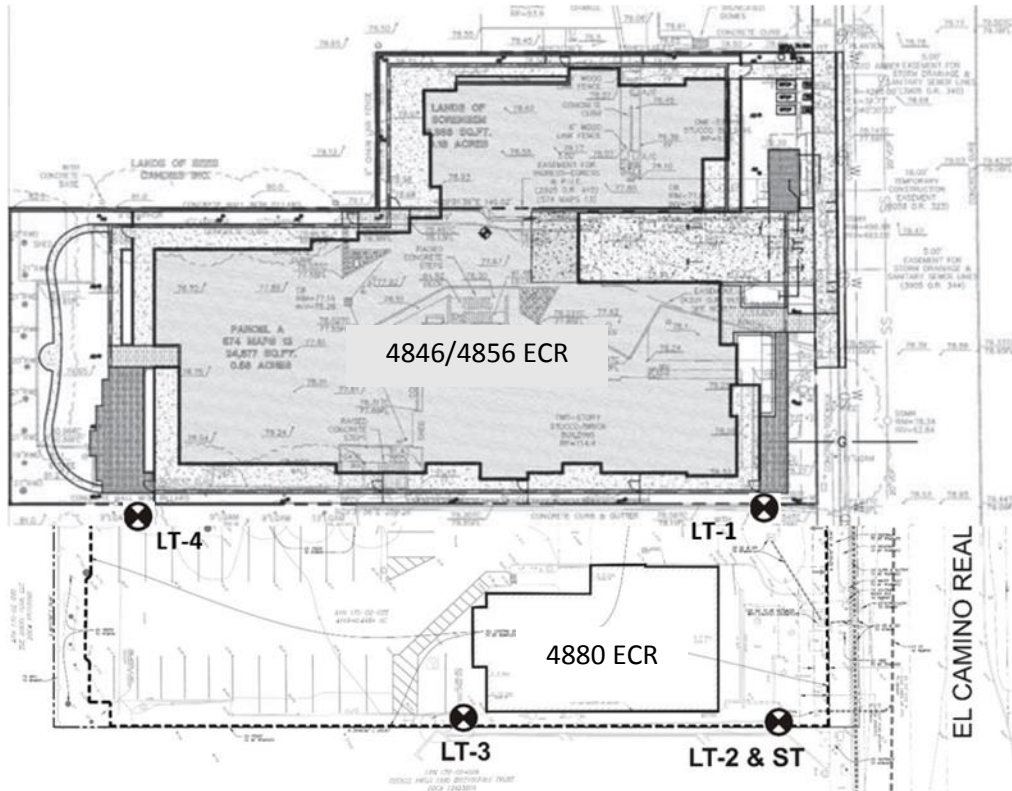
Decibel levels are calculated as  $10\log_{10}(p/p_{ref})^2$ , where  $p_{ref}$ , the reference pressure, is 20  $\mu$ Pa. Using these equations to compare the decibel level from a finite roadway segment compared to an “infinite” (fully exposed) roadway segment, one gets

$$\text{Difference in dB} = 10\log_{10}[(\Theta/\pi)(D_{\text{facade}}/(D_{\text{facade}}+D_{\text{gap}}))]$$

$D_{\text{facade}}$  = distance from roadway centerline to façade

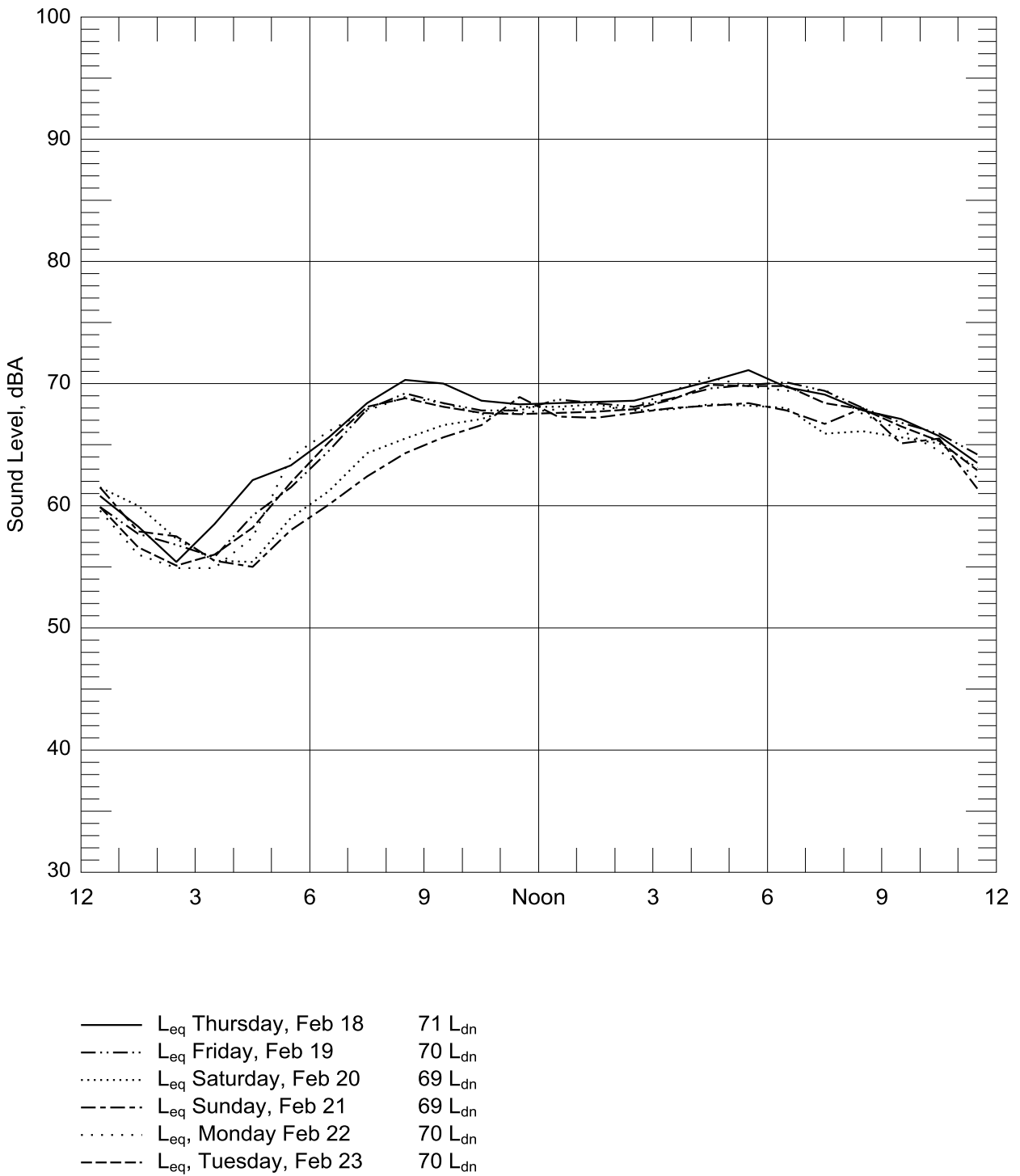
$D_{\text{gap}}$  = distance from façade to position in gap

For the geometry of the buildings and roadway in this case, the difference is -6.0 dB at a distance of 14 feet into the gap ( $D_{\text{gap}}$ ).

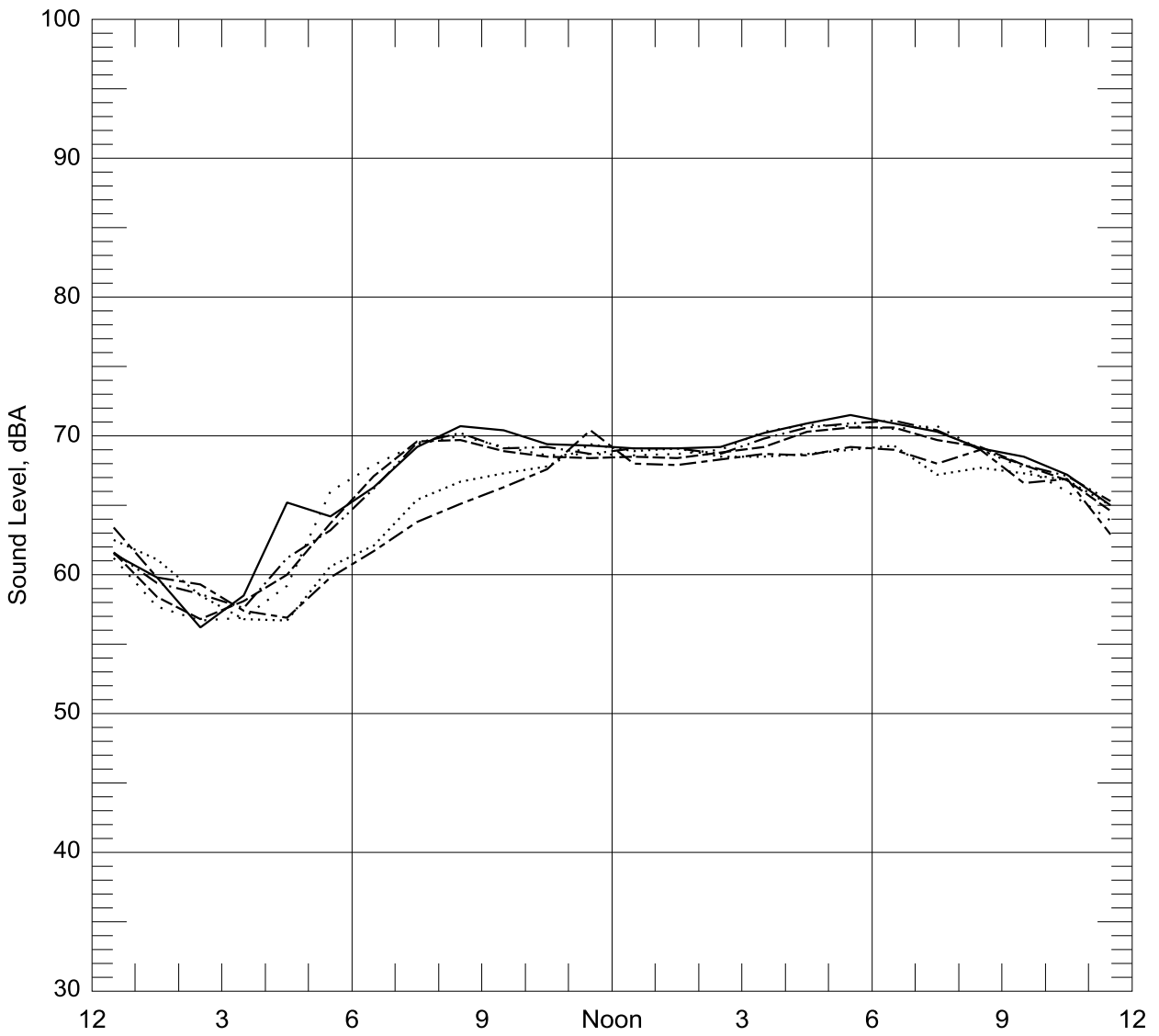


**Figure 2: Noise survey locations**

*(4880 ECR at time of measurement. 4856 ECR proposed building.)*

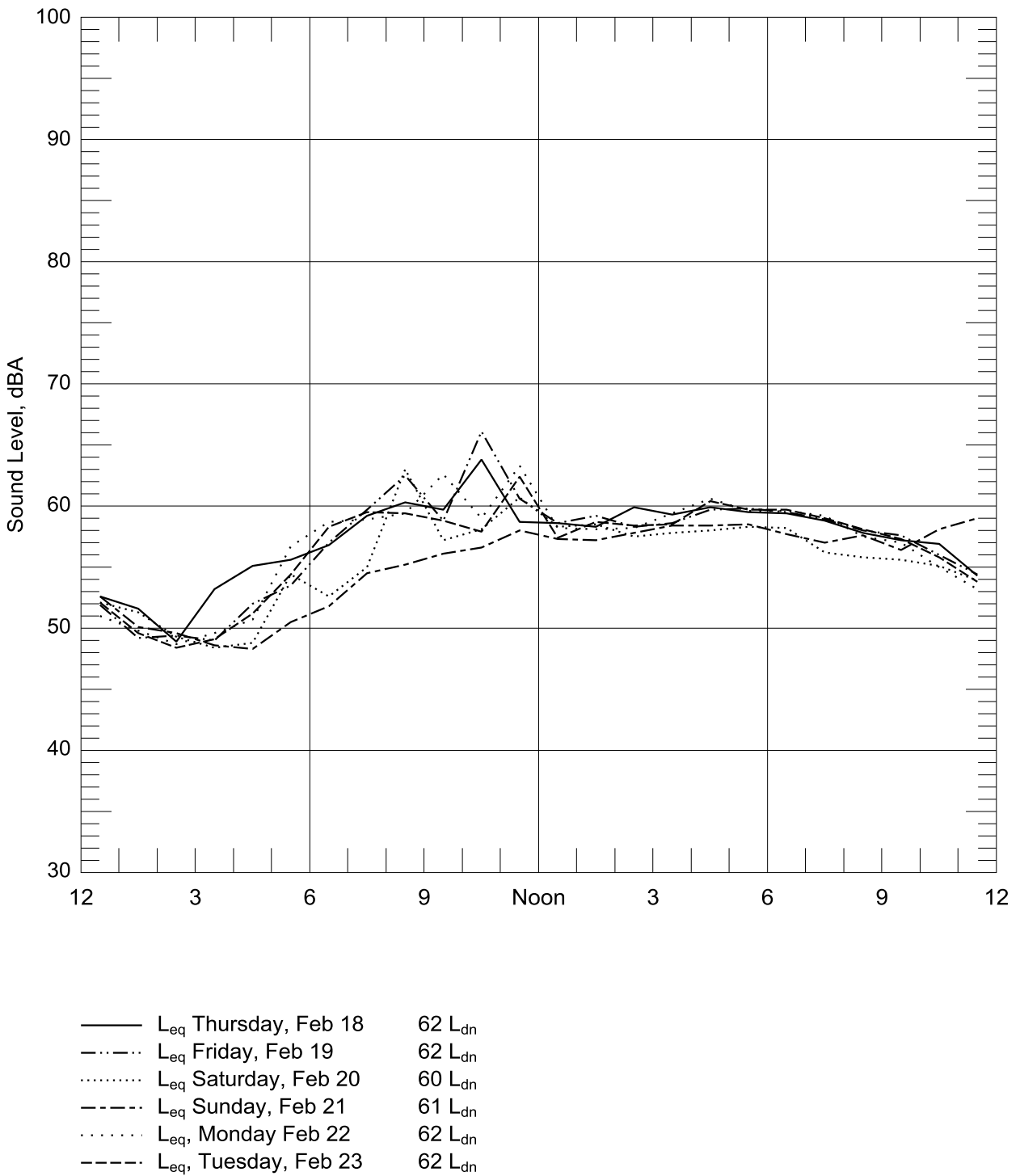


**Figure 3A: Hourly Equivalent (Leq) and Day-Night (Ldn) Levels measured at Location LT-1**

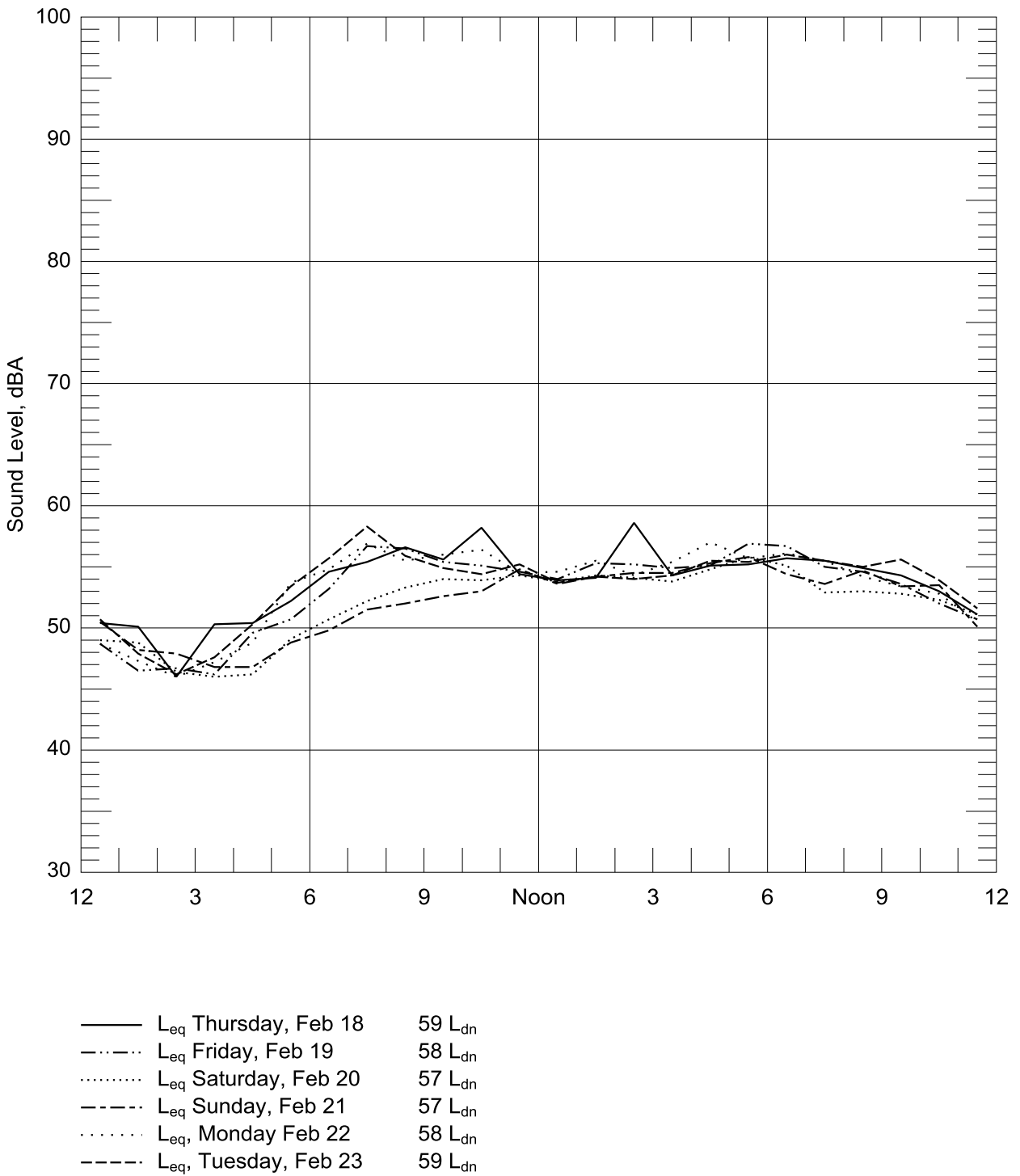


—	L <sub>eq</sub> Thursday, Feb 18	72 L <sub>dn</sub>
- · - · -	L <sub>eq</sub> Friday, Feb 19	72 L <sub>dn</sub>
·····	L <sub>eq</sub> Saturday, Feb 20	70 L <sub>dn</sub>
- - - - -	L <sub>eq</sub> Sunday, Feb 21	70 L <sub>dn</sub>
- · - · -	L <sub>eq</sub> , Monday Feb 22	72 L <sub>dn</sub>
- - - - -	L <sub>eq</sub> , Tuesday, Feb 23	71 L <sub>dn</sub>

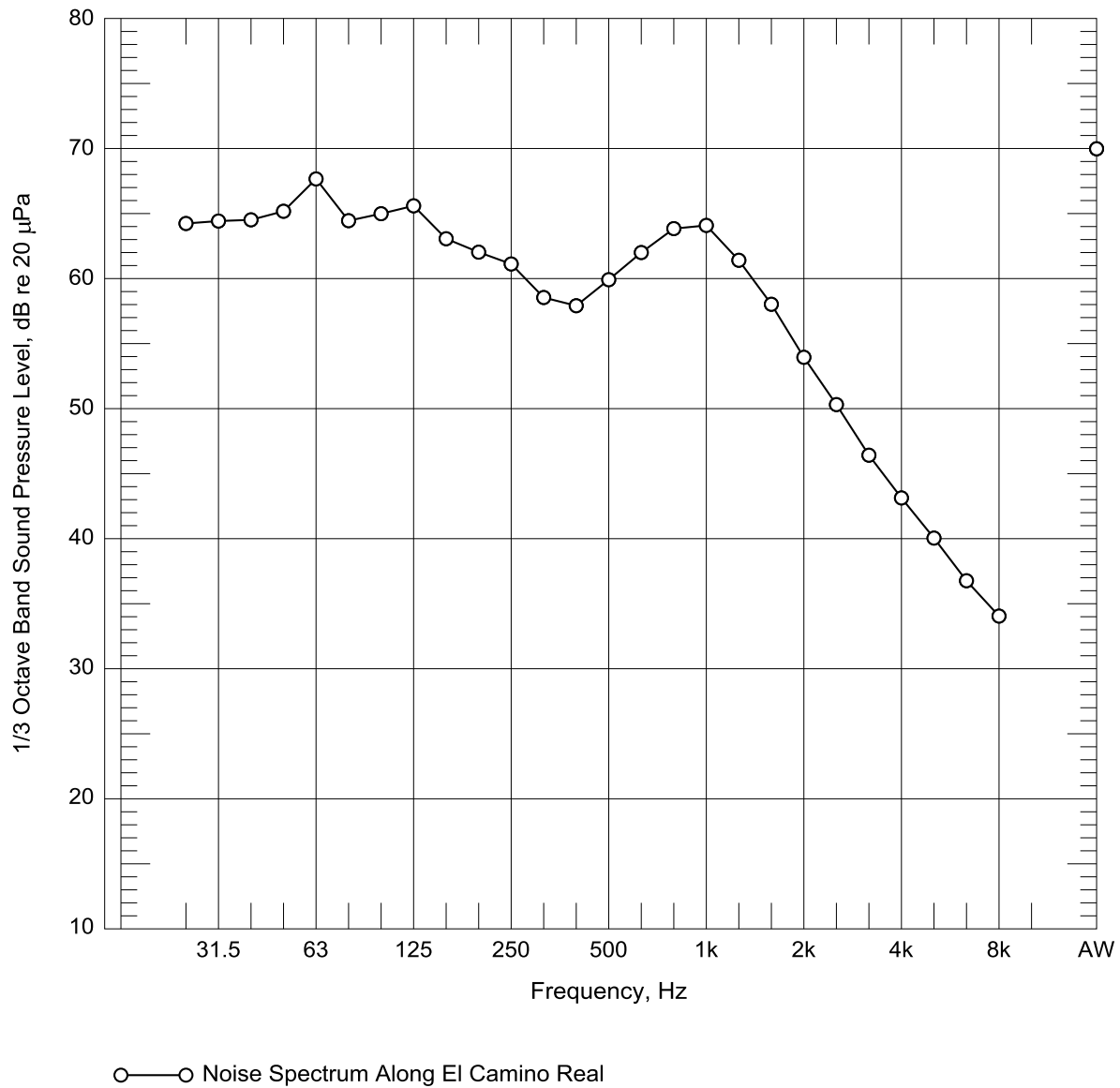
**Figure 3B: Hourly Equivalent (Leq) and Day-Night (Ldn) Levels measured at Location LT-2**



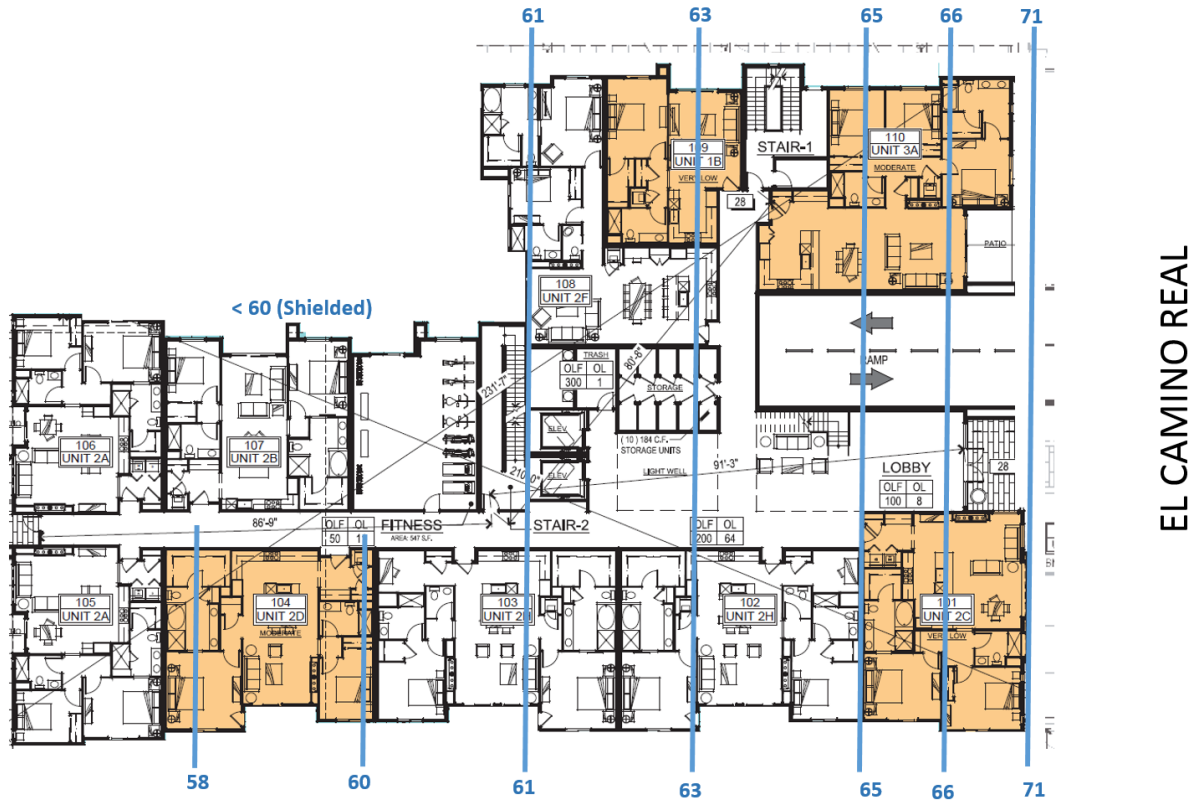
**Figure 3C: Hourly Equivalent (Leq) and Day-Night (Ldn) Levels measured at Location LT-3**



**Figure 3D: Hourly Equivalent (Leq) and Day-Night (Ldn) Levels measured at Location LT-4**

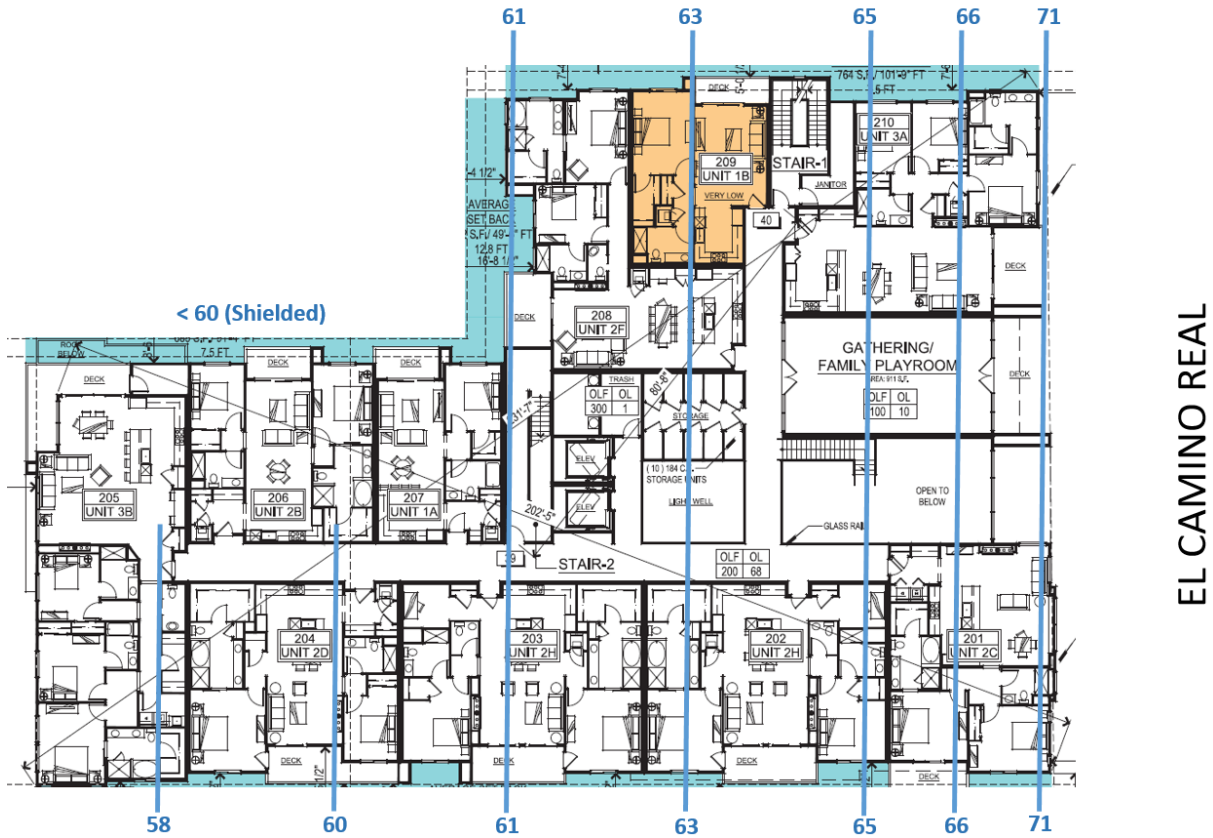


**Figure 4: Noise Frequency Spectrum measured at ST (10-minute sample)**

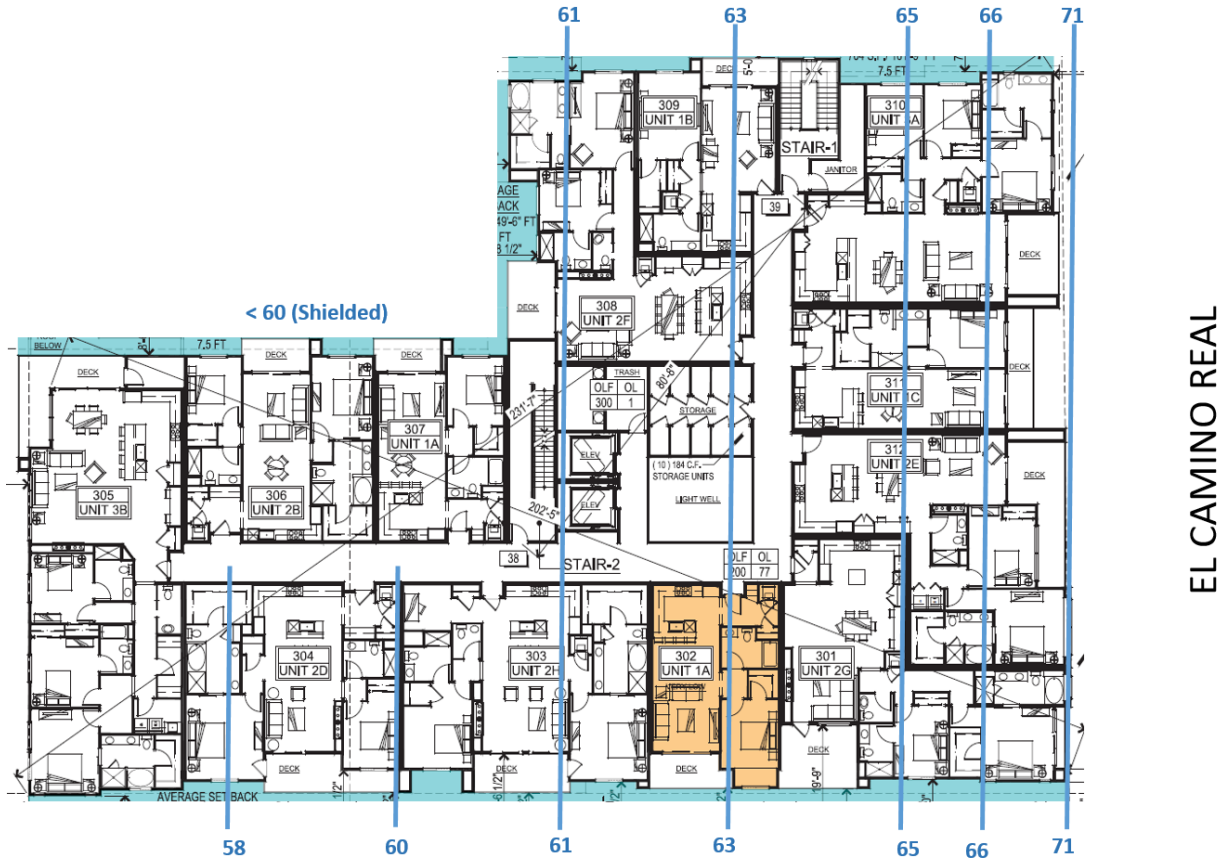


**Figure 5A: Expected Future (2025) Day-Night Levels (Ldn) for Floor 1**

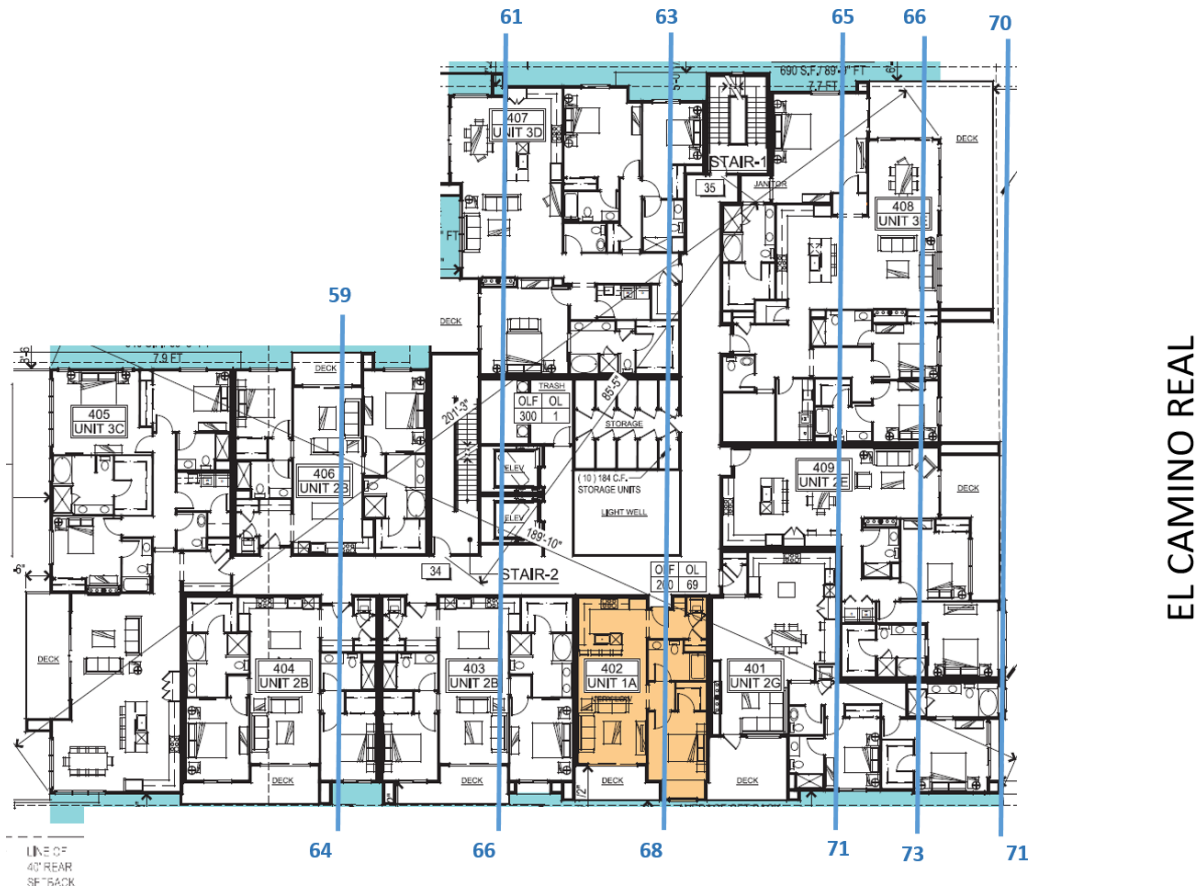




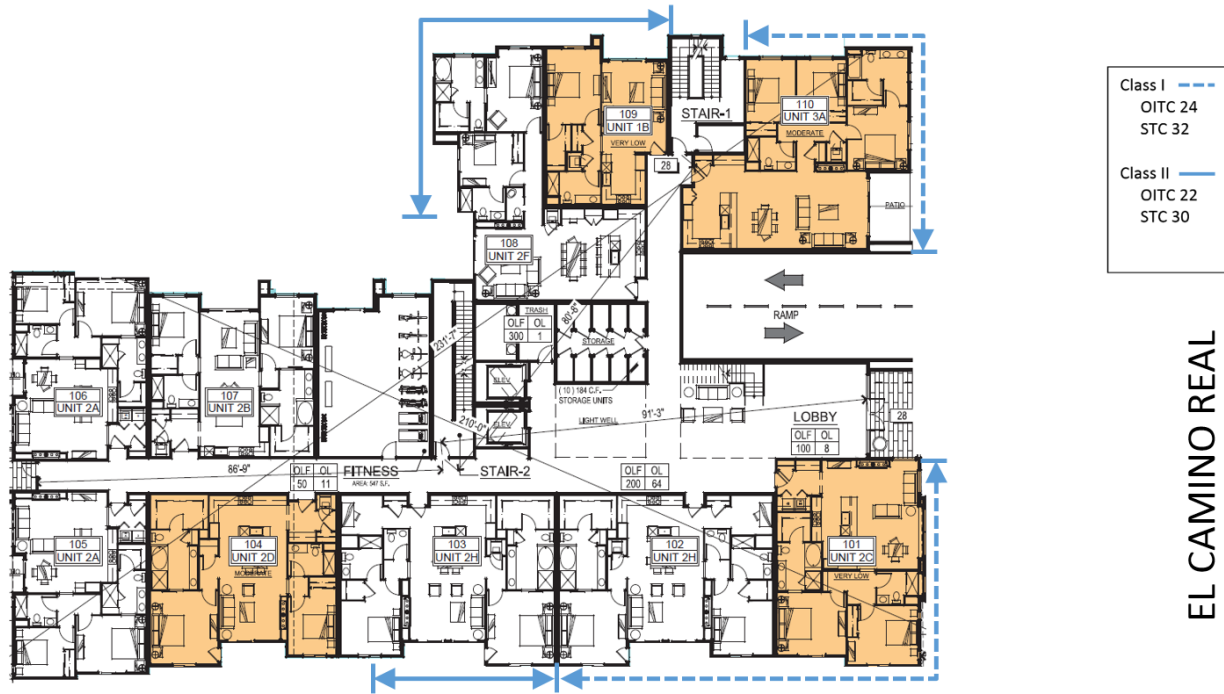
**Figure 5B:** *Expected Future (2025) Day-Night Levels (Ldn) for Floor 2*



**Figure 5C: Expected Future (2025) Day-Night Levels (Ldn) for Floors 3**



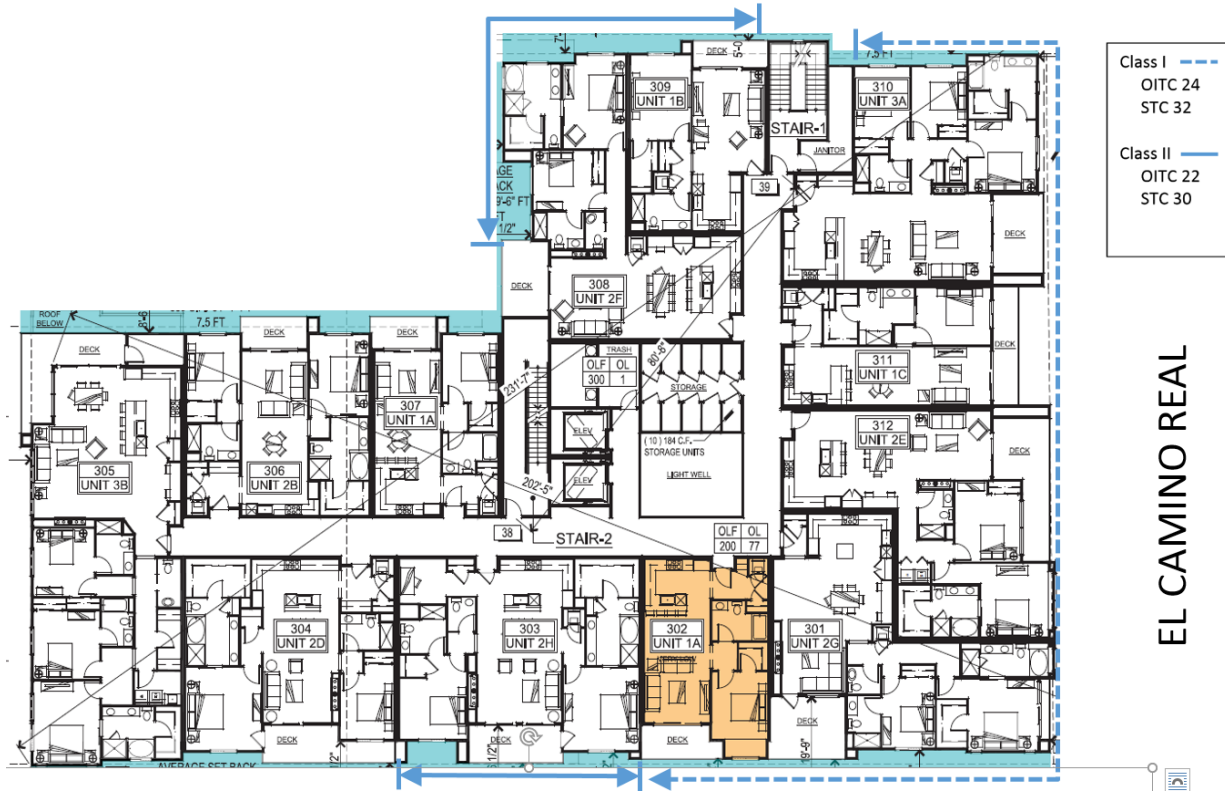
**Figure 5D:** *Expected Future (2025) Day-Night Levels (Ldn) for Floors 4-5*



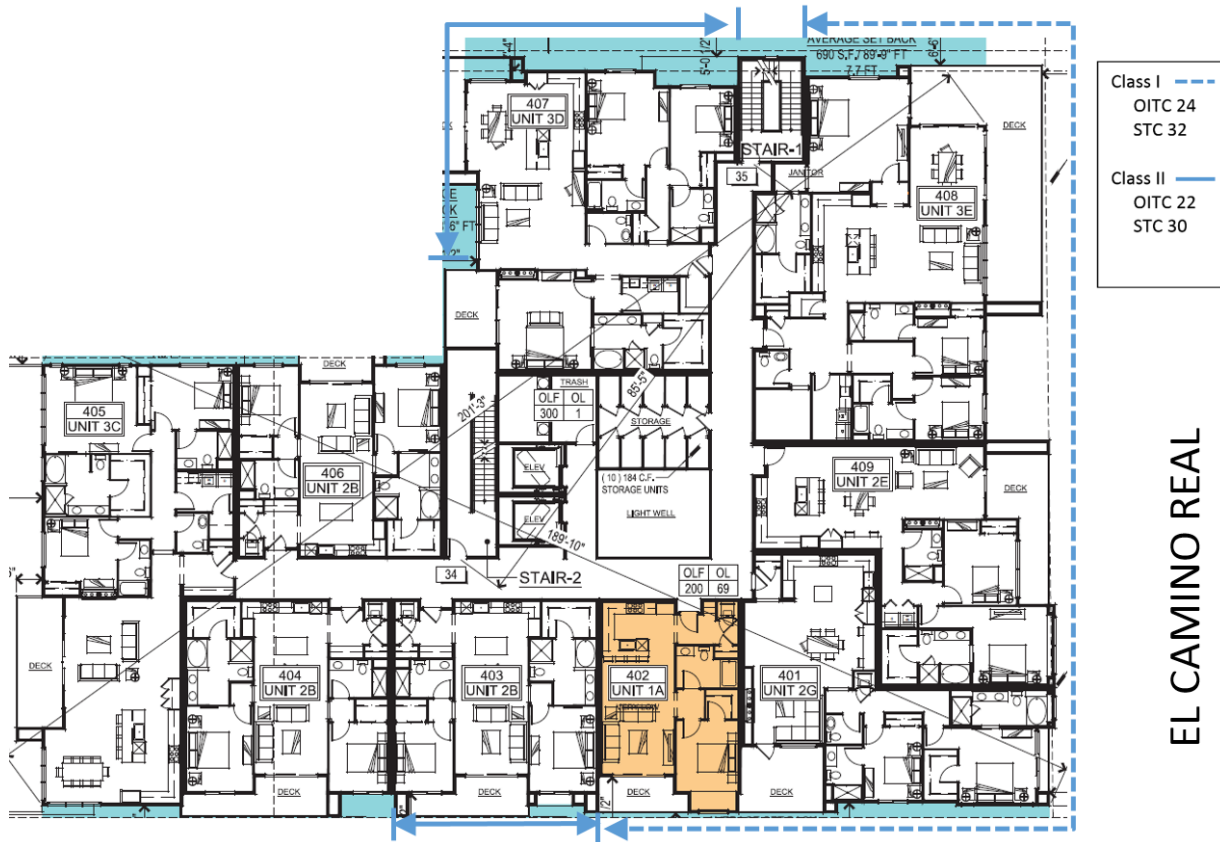
**Figure 6A:** *Minimum recommended glazing ratings for Floor 1*  
*Windows and exterior doors not flagged require no acoustical rating*



**Figure 6B:** *Minimum recommended glazing ratings for Floor 2*  
*Windows and exterior doors not flagged require no acoustical rating*



**Figure 6C:** Minimum recommended glazing ratings for Floor 3  
 Windows and exterior doors not flagged require no acoustical rating



**Figure 6D:** *Minimum recommended glazing ratings for Floor 4 and Floor 5  
 Windows and exterior doors not flagged require no acoustical rating*

## Appendix A: Description of Acoustical Terms

### **A-Weighted Sound Level (dBA):**

The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made. A-weighting de-emphasizes the low and very high frequency components of the sound in a manner similar to the response of the average human ear. A-weighted sound levels correlate well with subjective reactions of people to noise and are universally used for community noise evaluations.

### **Airborne Sound:**

Sound that travels through the air, as opposed to structure-borne sound.

### **Ambient Noise:**

The prevailing general noise existing at a location or in a space, which usually consists of a composite of sounds from many sources near and far.

### **Community Noise Equivalent Level (CNEL):**

The  $L_{eq}$  of the A-weighted noise level over a 24-hour period with a 5 dB penalty applied to noise levels between 7 p.m. and 10 p.m. and a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m.

### **Day-Night Sound Level ( $L_{dn}$ ):**

The  $L_{eq}$  of the A-weighted noise level over a 24-hour period with a 10 dB penalty applied to noise levels between 10 p.m. and 7 a.m.

### **Decibel (dB):**

The decibel is a measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

### **Energy Equivalent Level ( $L_{eq}$ ):**

The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time period of interest.  $L_{eq}$  is widely used as a single-number descriptor of environmental noise.  $L_{eq}$  is based on the logarithmic or energy summation and it places more emphasis on high noise level periods than does  $L_{50}$  or a straight arithmetic average of noise level over time. This energy average is not the same as the average sound pressure levels over the period of interest, but must be computed by a procedure involving summation or mathematical integration.

### **Field Impact Insulation Class (FIIC):**

A single number rating similar to the IIC except that the impact sound pressure levels are measured in the field.



**Field Sound Transmission Class (FSTC):**

A single number rating similar to STC, except that the transmission loss values used to derive the FSTC are measured in the field. All sound transmitted from the source room to the receiving room is assumed to be through the separating wall or floor-ceiling assembly.

**Frequency (Hz):**

The number of oscillations per second of a periodic noise (or vibration) expressed in Hertz (abbreviated Hz). Frequency in Hertz is the same as cycles per second.

**Impact Isolation Class (IIC):**

A single number rating used to compare the effectiveness of floor-ceiling assemblies in providing reduction of impact generated sounds such as footsteps. It is derived from the measurement of impact sound pressure levels across a series of 16 test bands using a standardized tapping machine.

**Noise Isolation Class (NIC):**

A single number rating derived from measured values of noise reduction between two enclosed spaces that are connected by one or more paths. The NIC is not adjusted or normalized to a standard reverberation time.

**Normalized Noise Isolation Class (NNIC):**

A single number rating similar to the NIC, except that the measured noise reduction values are normalized to a reverberation time of 1/2 second.

**Outdoor-Indoor Transmission Class (OITC):**

A single number classification, specified by the American Society for Testing and Materials (ASTM E 1332 issued 1994), that establishes the A-weighted sound level reduction provided by building facade components (walls, doors, windows, and combinations thereof), based upon a reference sound spectra that is typical of air, road, and rail transportation sources. The OITC is the preferred rating when exterior facade components are exposed to noise environments dominated by transportation sources.

**Octave Band - 1/3 Octave Band:**

One octave is an interval between two sound frequencies that have a ratio of two. For example, the frequency range of 200 Hz to 400 Hz is one octave, as is the frequency range of 2000 Hz to 4000 Hz. An octave band is a frequency range that is one octave wide. A standard series of octaves is used in acoustics, and they are specified by their center frequencies. In acoustics, to increase resolution, the frequency content of a sound or vibration is often analyzed in terms of 1/3 octave bands, where each octave is divided into three 1/3 octave bands.

**Sound Absorption Coefficient ( $\alpha$ ):**

The absorption coefficient of a material is the ratio of the sound absorbed by the material to that absorbed by an equivalent area of open window. The absorption coefficient of a

perfectly absorbing surface would be 1.0 while that for concrete or marble slate is approximately 0.01 (a perfect reflector would have an absorption of 0.00).

**Sound Pressure Level (SPL):**

The sound pressure level of sound in decibels is 20 times the logarithm to the base of 10 of the ratio of the RMS value of the sound pressure to the RMS value of a reference sound pressure. The standard reference sound pressure is 20 micro-pascals as indicated in ANSI S1.8-1969, "Preferred Reference Quantities for Acoustical Levels".

**Sound Transmission Class (STC):**

STC is a single number rating, specified by the American Society for Testing and Materials, which can be used to measure the sound insulation properties for comparing the sound transmission capability, in decibels, of interior building partitions for noise sources such as speech, radio, and television. It is used extensively for rating sound insulation characteristics of building materials and products.

**Structure-Borne Sound:**

Sound propagating through building structure. Rapidly fluctuating elastic waves in gypsum board, joists, studs, etc.

**Statistical Distribution Terms:**

$L_{99}$  and  $L_{90}$  are descriptors of the typical minimum or "residual" background noise (or vibration) levels observed during a measurement period, normally made up of the summation of a large number of sound sources distant from the measurement position and not usually recognizable as individual noise sources. Generally, the prevalent source of this residual noise is distant street traffic.  $L_{90}$  and  $L_{99}$  are not strongly influenced by occasional local motor vehicle passbys. However, they can be influenced by stationary sources such as air conditioning equipment.

$L_{50}$  represents a long-term statistical median noise level over the measurement period and does reveal the long-term influence of local traffic.

$L_{10}$  describes typical or average levels for the maximum noise levels occurring, for example, during nearby passbys of trains, trucks, buses and automobiles, when there is relatively steady traffic. Thus, while  $L_{10}$  does not necessarily describe the typical maximum noise levels observed at a point, it is strongly influenced by the momentary maximum noise level occurring during vehicle passbys at most locations.

$L_1$ , the noise level exceeded for 1% of the time is representative of the occasional, isolated maximum or peak level which occurs in an area.  $L_1$  is usually strongly influenced by the maximum short-duration noise level events which occur during the measurement time period and are often determined by aircraft or large vehicle passbys.

# ATTACHMENT H

## Kielty Arborist Services LLC

Certified Arborist WE#0476A

P.O. Box 6187

San Mateo, CA 94403

650-515-9783

April 30, 2018

Mohr Clock LLC  
4856/4846 El Camino Real  
Los Altos, CA

Site: 4856 and 4846 El Camino Real, Los Altos, CA

Dear Mohr Clock LLC,

As requested on Tuesday, April 18, 2018, I visited the above sites to inspect and comment on the trees. New construction is planned for these sites and your concern as to the future health and safety of the trees has prompted this visit. The latest tentative maps including a grading plan and drainage plan, and a utility plan have been reviewed for this site. Tentative maps 1.0 through 3.0 dated March 5, 2018 were reviewed for this report.

### **Method:**

All inspections were made from the ground; the trees were not climbed for this inspection. The trees in question were located on a "To-Scale" map provided by you. The trees were then measured for diameter at 54 inches above ground level (DBH or diameter at breast height). The trees were given a condition rating for form and vitality. The trees' condition rating is based on 50 percent vitality and 50 percent form, using the following scale.

- F-** Very Poor
- D-** Poor
- C-** Fair
- B-** Good
- A-** Excellent

The height of the trees was measured using a Nikon Forestry 550 Hypsometer. The spread was paced off. Comments and recommendations for future maintenance are provided.

4856 & 4846 El Camino/4/30/18

(2)

**Survey:**

<b>Tree#</b>	<b>Species</b>	<b>DBH</b>	<b>CON</b>	<b>HT/SP</b>	<b>Comments</b>
1P/R	Sycamore ( <i>Platanus acerifolia</i> )	10.4	B	35/30	Good vigor, fair form, good crotch formations.
2P/R	Chinese pistache ( <i>Pistachia chinensis</i> )	9.2	B	30/20	Good vigor, fair form, in restricted root area.
3P/R	Sycamore ( <i>Platanus acerifolia</i> )	8.9	C	35/30	Good vigor, fair form, trunk leans south, multi leader at 8 feet.
4P	Redwood ( <i>Sequoia sempervirens</i> )	31.2	B	50/35	Good vigor, fair form, good screen.
5P	Redwood ( <i>Sequoia sempervirens</i> )	19.7	B	50/35	Good vigor, fair form, good screen.
6P	Redwood ( <i>Sequoia sempervirens</i> )	21.3	B	50/35	Good vigor, fair form, good screen.
7P	Redwood ( <i>Sequoia sempervirens</i> )	20.8	B	50/35	Good vigor, fair form, good screen.
8P	Redwood ( <i>Sequoia sempervirens</i> )	21.2	B	50/35	Good vigor, fair form, good screen.
9P	Redwood ( <i>Sequoia sempervirens</i> )	21.6	B	50/35	Good vigor, fair form, good screen.
10P	Redwood ( <i>Sequoia sempervirens</i> )	22.0	B	50/35	Good vigor, fair form, good screen.
11P	Redwood ( <i>Sequoia sempervirens</i> )	22est	B	50/35	Good vigor, fair form, good screen.
12P	Redwood ( <i>Sequoia sempervirens</i> )	28est	B	50/35	Good vigor, fair form, good screen.
13R	Chinese pistache ( <i>Pistachia chinensis</i> )	8.4	C	20/15	Good vigor, poor form, suppressed by redwoods.

**P**-Indicates protected tree by city ordinance

**R**-Indicates tree proposed to be removed

**Summary:**

The trees on site are a mix of imported trees (exotics), there are no trees native to this area of Los Altos on the site. The trees are in fair to good condition with no poor or excellent trees. The trees are all located on the perimeter of the property, ideal for construction. Trees #1-3 and #13 are proposed for removal.



The redwoods in the rear of the property provide a great screen and will be retained and protected for this project. The redwood trees are located in a landscaped area at the back of the property between the existing parking lot and property line. A concrete curb is between the asphalt parking lot and landscaped area. Because the rootable soil under the existing parking lot is highly compacted, root growth is expected to be minimal to nonexistent underneath the asphalt parking lot. It is likely that at least an 8 inch thick layer of compacted base rock sits below the parking lot.

Roots cannot grow in the highly compacted base rock area as there is not enough oxygen in the medium due to compacted conditions, and because water penetration into the soil is very limited. The concrete curb also helps to discourage root growth into the parking lot area. The concrete curb likely is extended at least 6 inches below the grade with another 6 inches of base rock underneath the curb. The curb and the base rock underneath the curb likely acted as a root barrier for these redwood trees, therefore little to no root growth is expected underneath the asphalt parking lot.

The majority of the proposed wood/paver patio is located outside of the existing landscaped area for the redwood trees. The patio sits at 24" below the existing parking lot grade. Because little to no root growth is expected outside of the landscaped area (under the existing parking lot), impacts to the majority of the existing redwood trees is expected to be nonexistent. Redwood trees #4-5 and #11-12 will be impacted as the existing landscaped area for these trees is to be reduced by the proposed retaining wall around the proposed wood/paver patio. The excavation for the retaining wall will be at a distance of 8 feet from these trees. The Project Arborist must be called out to the site to witness the excavation for the retaining wall near these trees. The excavation must be done by hand in order to cleanly cut roots where needed. Any roots or root ends to be exposed for longer than 4 hours must be wrapped in burlap and kept moist by spraying down the burlap multiple times a day with clean water. Impacts will be mitigated through heavy irrigation as well as a deep water fertilization to tree trees root zones before the start of the project.



**Showing redwood trees #11-12 with larger landscaped area**

The majority of the proposed underground parking garage is located underneath the existing parking lot where no roots are expected. Stitch piers must be used for the construction of the parking garage as using the standard OSHA overcut for basement excavation would likely impact the trees as excavation would need to encroach into the existing landscaped area between the existing parking lot and redwood trees. Again redwood trees #4-5 and #11-12 will be impacted as they have a larger landscaped area than the rest of the trees where roots will have grown into. Because the wood/paver patio is closer to the trees than the parking garage and because the patio will be 24" underneath the existing grade, any roots growing in the landscaped area for trees #4-5 and #11-12 will be severed by the retaining wall surrounding the proposed deck in closer proximity to these trees than the underground parking garage.



**Evidence of a parking lot and curb surrounding parking lot discouraging root growth**

We have seen this same type of root barrier for a redwood tree on a similar project in San Mateo where there was a small landscaped area with a large 40 inch redwood tree adjacent to a parking lot with a curb. Little to no roots were found underneath the parking lot when excavation was completed. A large amount of roots were seen in the existing landscaped area.

**Showing picture from another job with a redwood tree located in a landscaped area adjacent to an existing asphalt parking lot with a curb. Little to no roots were found underneath the asphalt parking lot as the curb and compacted base rock below the parking lot discouraged root growth.**

**Mitigations/recommendations for redwood tree health.**

Redwood trees are not native to this area of Los Altos. This area of Los Altos is an oak woodland habitat and is significantly drier than the redwood trees native habitat. Therefore, significant irrigation must be provided to the redwood trees to be able to maintain a healthy canopy. The following recommendations for the redwood trees will also act as mitigation measures for any minor root loss.

- Significant irrigation shall be provided to the redwood trees within the landscaped area. Soaker hoses shall be placed throughout the landscaped area. Soaker hoses shall be turned on every 2 weeks during the dry season until the top foot of soil is saturated. Redwood trees in this area require significant irrigation to maintain a healthy canopy as they are out of their native range. Soil shall be allowed to dry out between watering.
- The project arborist must be on site during any of the proposed excavation near the redwood trees. Any encountered roots (expected to be minimal to non-existent) will need to be cleanly cut under the project arborist supervision. Root ends, if left exposed, shall be wrapped in burlap and kept moist by spraying down the burlap with clean water multiple times a day.
- During the month of either May or June the trees should be deep water fertilized by a licensed tree care provider capable of injecting at least 400 gallons of water into the ground mixed with a well balanced fertilizer.

The existing street trees are proposed to be removed. Replacement street trees will need to be provided. The following tree protection plan should help to reduce impacts to the retained trees.

**Tree Protection Plan:**

Tree protection zones should be installed and maintained throughout the entire length of the project. Fencing for tree protection should be 6' tall, metal chain link material supported by metal 2" diameter poles, pounded into the ground to a depth of no less than 2'. The location for the protective fencing should be placed in a way that completely fences off the entire landscaped area that the redwood trees are located in. No materials shall be stored or cleaned inside the protection zones.

**Demolition and Staging**

Prior to the start of the demolition process, all tree protection measures must be in place. An inspection prior to the start of the demolition may be required. All vehicles must remain on paved surfaces if possible. The removal of existing hardscapes in close proximity to the redwood trees should be carried out with care. Hand excavation will be required in case areas of heavy rooting are exposed. Exposed or damaged roots should be repaired and covered with native soil. Tree protection fencing may need to be moved after the demolition. The site arborist should be notified and the relocated fence should be inspected.

### Root Cutting

Any roots to be cut shall be monitored and documented. Large roots (over 2" diameter) or large masses of roots to be cut must be inspected by the site arborist prior to being cut. The site arborist, at this time, may recommend irrigation or fertilization of the root zone. All roots needing to be cut should be cut clean with a saw or lopper and painted with latex paint. Roots to be left exposed for a period of time should be covered with layers of burlap and kept moist.

### Trenching

Trenching for irrigation, drainage, electrical or any other reason shall be done by hand when inside the dripline of a protected tree. Hand digging and the careful placement of pipes below or besides protected roots will significantly reduce root loss, thus reducing trauma to the tree. All trenches shall be backfilled with native materials and compacted to near its original level, as soon as possible. Trenches to be left open for a period of time (24 hours), will require the covering of all exposed roots with burlap and be kept moist. The trenches will also need to be covered with plywood to help protect the exposed roots.

### Irrigation

Normal irrigation shall be maintained on this site at all times. During the warm season, April – November, I typically recommend some additional heavy irrigation, 2 times per month. During the winter months, it may be necessary to irrigate 1 additional time per month. Seasonal rainfall may reduce the need for additional irrigation.

### Inspections

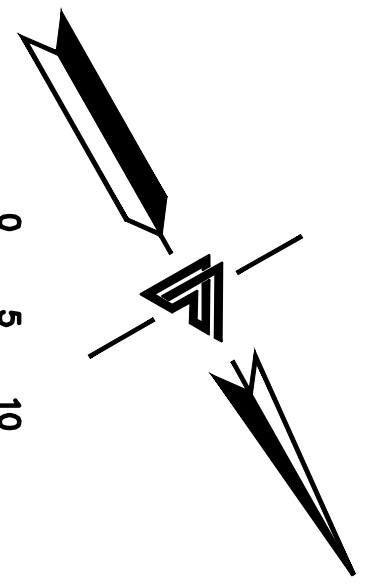
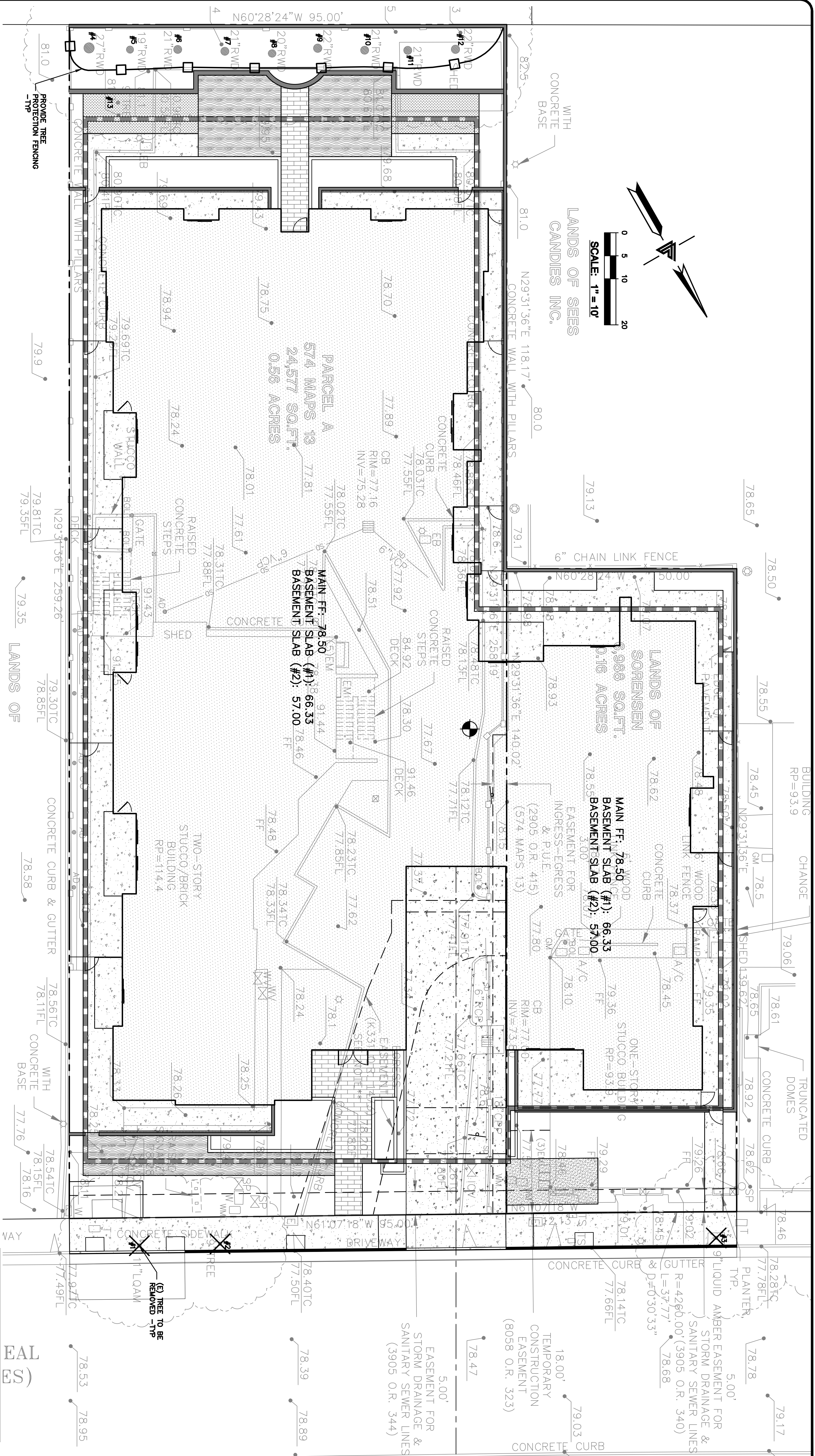
The City of Los Altos does not require monthly tree inspections on construction sites of this nature. An inspection of the tree protection measures is often required prior to the start of demolition. The inspections must be carried out by the site arborist. Other visits will be on an "as needed" basis. The site arborist shall be on site during the excavation process.

The information included in this report is believed to be true and based on sound arboricultural principles and practices.

Sincerely,

Kevin R. Kielty  
Certified Arborist WE#0476A





0 5 10 20  
SCALE: 1" = 10'

LANDS OF SEES CANDIES INC.

LANDS OF SORENSEN 0.16 ACRES

PARCEL A  
574 MAPS 13  
24,577 SQ.FT.  
0.56 ACRES

MAIN FF: 78.50  
BASEMENT SLAB (#1): 66.33  
BASEMENT SLAB (#2): 57.00

TWO-STORY STUCCO/BRICK BUILDING  
RP=114.4

SIZE/DESCRIPTION	STATUS
22" REDWOOD (#12)	TO REMAIN
21" REDWOOD (#11)	TO REMAIN
22" REDWOOD (#9)	TO REMAIN
20" REDWOOD (#8)	TO REMAIN
21" REDWOOD (#7)	TO REMAIN
19" REDWOOD (#6)	TO REMAIN
27" REDWOOD (#4)	TO REMAIN
9" AMBER (#3)	TO BE REMOVED
9" TREE (#2)	TO BE REMOVED
11" AMBER (#1)	TO BE REMOVED
9" TREE (#13)	TO BE REMOVED

TREE NUMBER EXHIBIT

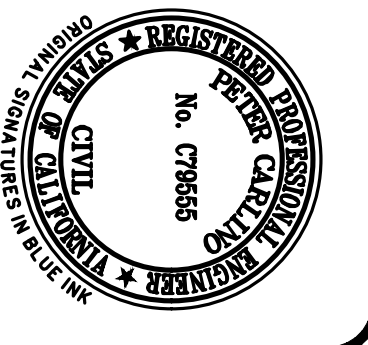
ALTOS ONE  
4846 & 4856 EL CAMINO REAL  
LOS ALTOS, CALIFORNIA

**LEA & BRAZE ENGINEERING, INC.**  
CIVIL ENGINEERS • LAND SURVEYORS

BAY AREA REGION  
2495 INDUSTRIAL PKWY WEST  
HAYWARD, CALIFORNIA 94545  
(P) (510) 887-4086  
(F) (510) 887-3019

SACRAMENTO REGION  
3017 DOUGLAS BLVD # 300  
ROSEVILLE, CA 95661  
(P) (916) 966-1338  
(F) (916) 797-7363

WWW.LEABRAZE.COM



EX-1

DRAWN BY:	TB
DESIGN BY:	PC/GA
DATE:	04-30-18
JOB NO.:	2160433
REVISIONS:	BY
SHEET NO.:	

2001 Gateway Place, Suite 101E  
San Jose, California 95110  
(408)501-7864 svlg.org

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President & CEO

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Hillspire  
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AARIF KHAKOO  
AMGEN  
ERIC KUTCHER  
McKinsey & Company  
JOHN LEDEK  
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HP Inc.  
MATT MAHAN  
Brigade  
TARKAN MANER  
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Bay Area News Group  
RON SEGE  
Echelon  
DARREN SNELGROVE  
Johnson & Johnson  
JEFF THOMAS  
Nasdaq  
JED YORK  
San Francisco 49ers

Established in 1978 by  
David Packard

August 17, 2018

Chair Phoebe Bressack and Members of the Planning Commission  
City of Los Altos  
1 North San Antonio Road  
Los Altos, CA 94022

**RE: September 6, 2018 Planning Commission Meeting  
Altos One Residential Development, 4846-4856 El Camino Real**

Dear Chair Bressack and Honorable Members of the Planning Commission,

On behalf of the Silicon Valley Leadership Group, I express our support for the proposed 50 for-sale condominiums of the Altos One residential development. Appropriately high-density housing along the transit-rich El Camino Real is exactly where we should be building housing that leverages the significant investment in our transportation systems and transit corridors.

The Silicon Valley Leadership Group, founded in 1978 by David Packard of Hewlett-Packard, represents more than 375 of Silicon Valley's most respected employers on issues, programs and campaigns that affect the economic quality of life in Silicon Valley.

California and especially the Bay Area are currently experiencing a grave housing shortage that deeply threatens our innovation economy. Our companies are struggling to attract and keep employees at all levels because of the cost of housing. We need to construct more homes of all types and for all Californians so that our region, our workers, and their families can prosper and thrive.

We applaud the City of Los Altos for doing its part to provide homes and to continue building new housing. Because of the height and density of this development, we encourage the developer to work closely with the surrounding community and building owners to respond to any concerns without the loss of any of the proposed housing amount. We are excited for this high-density project that should be developed in partnership with the community in the hopes that this is not the last high-density development along El Camino Real.

The Leadership Group is committed to increasing the housing supply in our Valley and Bay Area, and we proudly support proposed residential developments like the one before you.

Sincerely,



Carl Guardino  
President & CEO  
Silicon Valley Leadership Group



2001 Gateway Place, Suite 101E  
San Jose, California 95110  
(408)501-7864 svlg.org

CARL GUARDINO  
President & CEO

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AMGEN  
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McKinsey & Company  
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BD Biosciences  
ENRIQUE LORES  
HP Inc.  
MATT MAHAN  
Brigade  
TARKAN MANER  
Nexenta  
KEN MCNEELY  
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KEVIN MURAI  
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ANDY PIERCE  
Stryker Endoscopy  
KIM POLESE  
ClearStreet  
RYAN POPPLE  
Proterra  
RUDY REYES  
Verizon  
BILL RUH  
GE  
SHARON RYAN  
Bay Area News Group  
RON SEGE  
Echelon  
DARREN SNELLGROVE  
Johnson & Johnson  
JEFF THOMAS  
Nasdaq  
JED YORK  
San Francisco 49ers

Established in 1978 by  
David Packard

September 24, 2018

Mayor Jean Mordo and Honorable Councilmembers  
City of Los Altos  
1 North San Antonio Road  
Los Altos, CA 94022

**RE: Support for Altos One Residential Development, 4846-4856 El Camino Real**

Dear Mayor Mordo, Vice Mayor Lee Eng, and Honorable Councilmembers,

On behalf of the Silicon Valley Leadership Group, I express our support for the proposed 50 for-sale condominiums of the Altos One residential development. Appropriately high-density housing along the transit-rich El Camino Real is exactly where we should be building housing that leverages the significant investment in our transportation systems and transit corridors.

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Sincerely,

Carl Guardino  
President & CEO  
Silicon Valley Leadership Group



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**PROJECT DIRECTORY**

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**ALTOS ONE**  
 4846 & 4856 El Camino Real  
 Los Altos, CA  
 October 15, 2018

**LUXONE LLC**  
 572 Chimalus Dr.  
 Palo Alto, CA 94306

**CITY COUNCIL ADDENDUM**

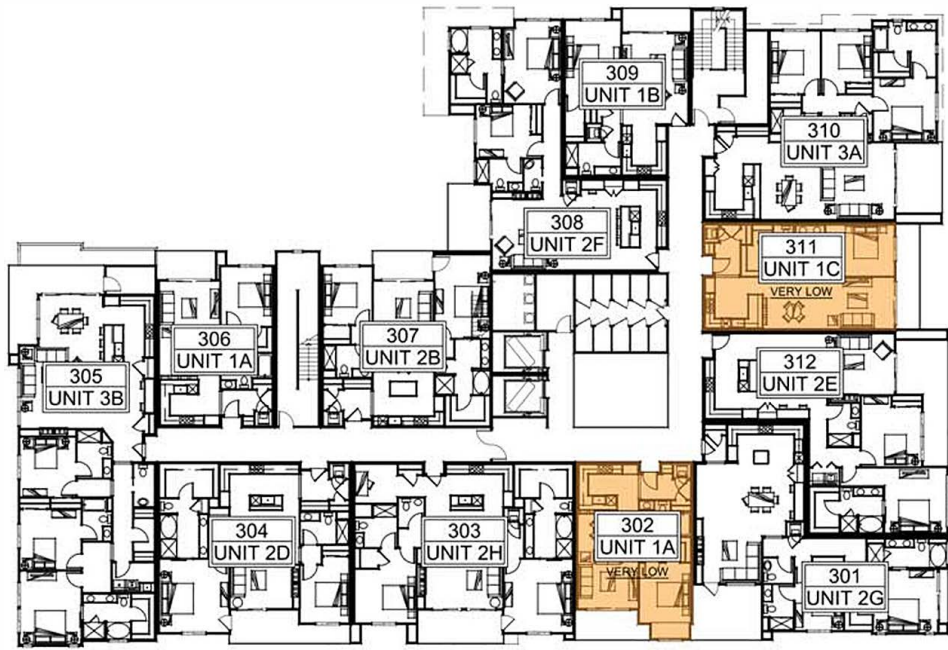
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**T1  
 TITLE SHEET**

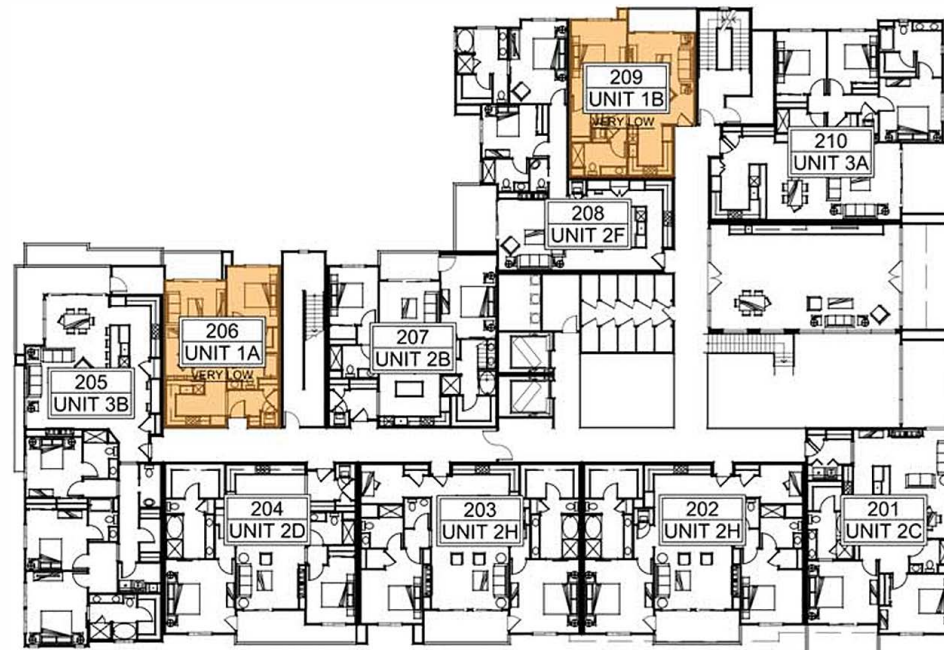
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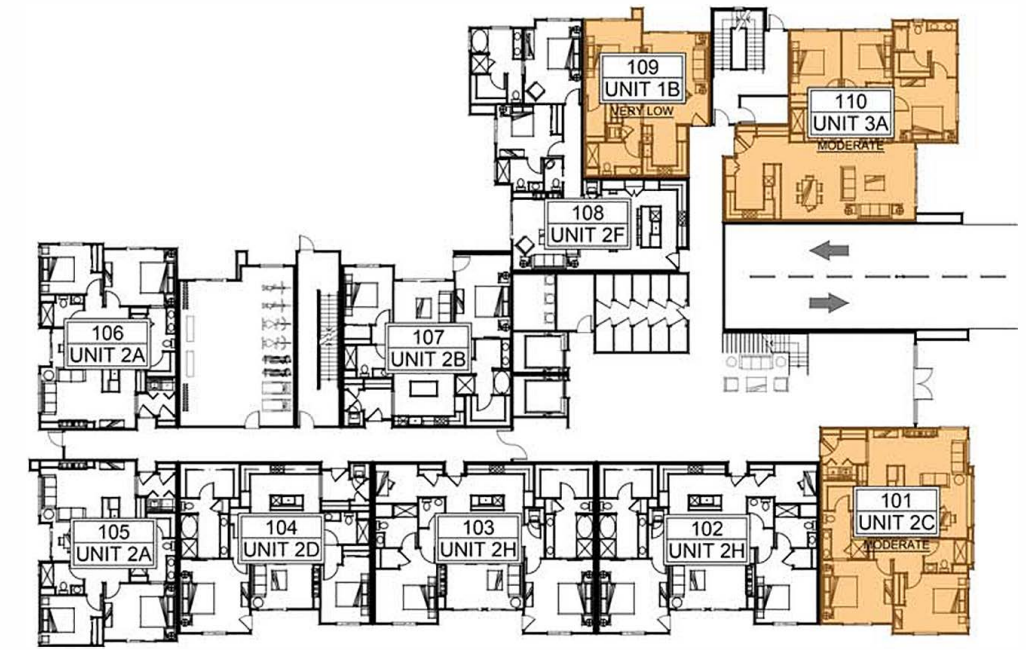
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THIRD FLOOR



SECOND FLOOR



FIRST FLOOR

**BELOW MARKET RATE UNITS**

**FIRST FLOOR:**

- UNIT 101 - MODERATE: TYPE 2C = +/-1308 SF  
2 BEDROOM / 2 BATHROOM
- UNIT 109 - VERY LOW: TYPE 1B = +/-785 SF  
1 BEDROOM / 1 BATHROOM
- UNIT 110 - MODERATE: TYPE 3A = +/-1569 SF  
3 BEDROOM / 2 BATHROOM

**SECOND FLOOR:**

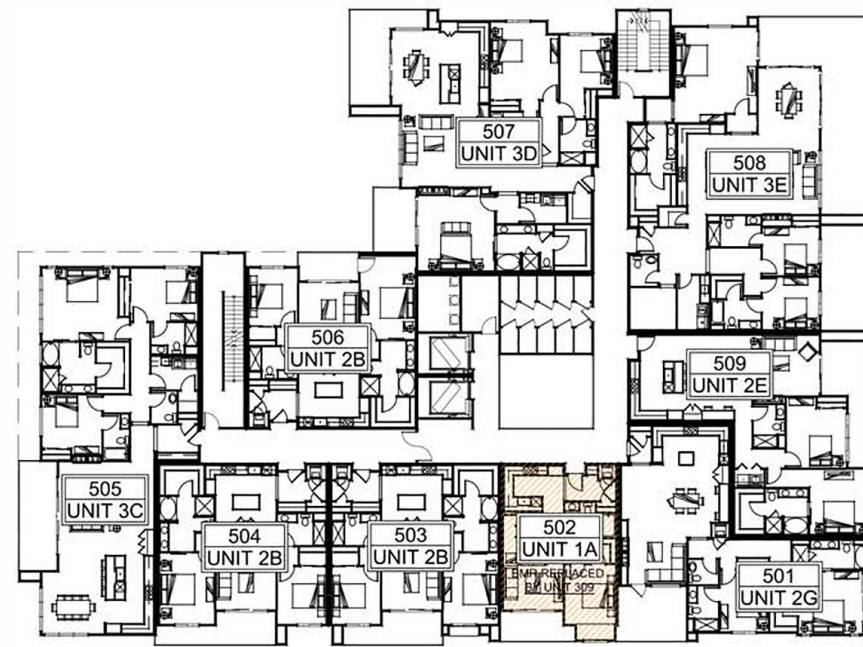
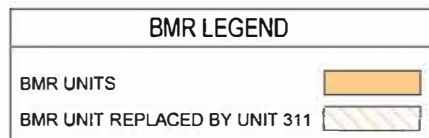
- UNIT 206 - VERY LOW: TYPE 1A = +/-782 SF  
1 BEDROOM / 1 BATHROOM
- UNIT 209 - VERY LOW: TYPE 1B = +/-785 SF  
1 BEDROOM / 1 BATHROOM

**THIRD FLOOR:**

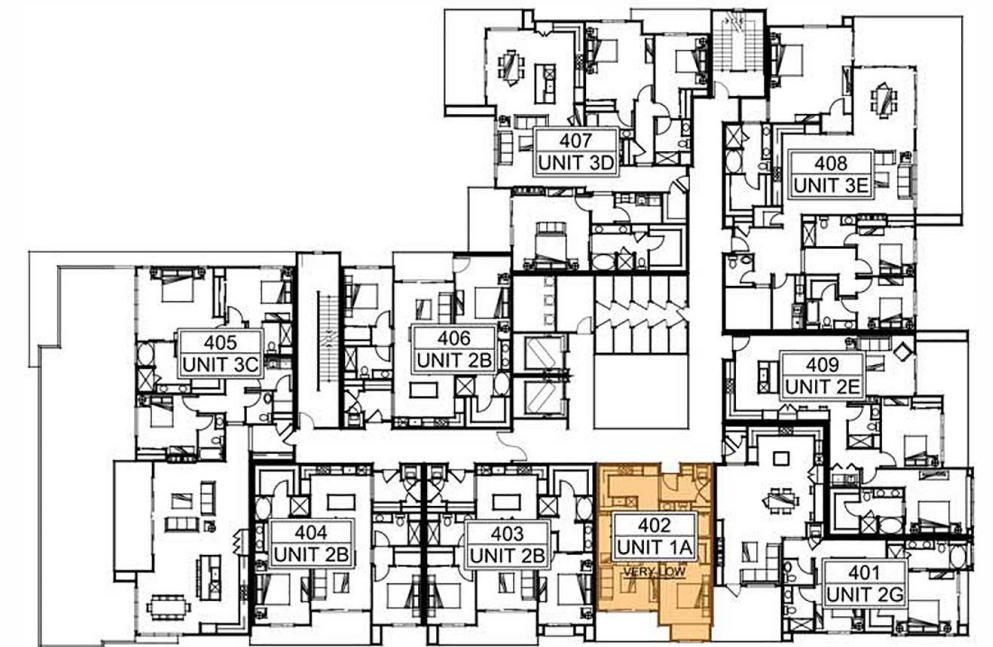
- UNIT 302 - VERY LOW: TYPE 1A = +/-782 SF  
1 BEDROOM / 1 BATHROOM
- UNIT 311 - VERY LOW: TYPE 1C = +/-902 SF  
1 BEDROOM / 1 BATHROOM

**FOURTH FLOOR:**

- UNIT 402 - VERY LOW: TYPE 1A = +/-782 SF  
1 BEDROOM / 1 BATHROOM



FIFTH FLOOR



FOURTH FLOOR

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T3  
**BMR ALLOCATION**

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EQUITONE: TECTIVA



DOORS AND WINDOWS: METAL WINDOW CORPORATION



DECK MOUNTED GLASS GAURD RAILINGS



SIDING: KEBONY CLEAN 90° SHIPLAP CLADDING



CENTRIA ARCHITECTURAL METAL PANELS  
RUST FINISH

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PROJECT MATERIALS





FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION

□ INDICATES RECESSED WINDOW

ALTOS ONE

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A-05  
RECESSED WINDOW LOCATIONS

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**A8  
 FRONT ELEVATION**

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EQUITONE TE60  
EXTERIOR CLADDING

GLASS BALCONY RAIL

ARCHITECTURAL METAL  
PANELS: RUST FINISH

WOOD SIDING  
WOOD BALCONY  
GUARD

PROPERTY LINE

ELEVATOR TOWER HEIGHT 75'-10 3/4"

STAIR TOWER 69'-11 3/4"

GLASS RAIL 65'-5 3/4"

PARAPET HEIGHT 62'-11 3/4"

ROOF DECK

FINISHED FLOOR 59'-5 3/4"

T.O. PL. 11'-1" A.F.F.

FIFTH FLOOR

FINISHED FLOOR 45'-9"

T.O. PL. 10'-1" A.F.F.

FOURTH FLOOR

FINISHED FLOOR 34'-3 3/4"

T.O. PL. 10'-1" A.F.F.

THIRD FLOOR

FINISHED FLOOR 22'-10 1/2"

T.O. PL. 10'-1" A.F.F.

SECOND FLOOR

FINISHED FLOOR 11'-5 1/4"

T.O. PL. 10'-1" A.F.F.

PROPERTY LINE

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**A9  
RIGHT ELEVATION**

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**A10  
 REAR ELEVATION**

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ARCHITECTURAL METAL  
PANELS: RUST FINISH

EQUITONE TE60  
EXTERIOR CLADDING

GLASS BALCONY GUARD

SAND TEXTURE  
STUCCO FINISH

EQUITONE TE00 & TE10  
EXTERIOR CLADDING

PROPERTY LINE

ELEVATOR TOWER HEIGHT 75'-10 3/4"

STAIR TOWER 69'-11 3/4"

GLASS RAIL 65'-5 3/4"

PARAPET HEIGHT 62'-11 3/4"

ROOF DECK

FINISHED FLOOR 59'-5 3/4"

T.O. PL. 11'-1" A.F.F.

FIFTH FLOOR

FINISHED FLOOR 45'-9"

T.O. PL. 10'-1" A.F.F.

FOURTH FLOOR

FINISHED FLOOR 34'-3 3/4"

T.O. PL. 10'-1" A.F.F.

THIRD FLOOR

FINISHED FLOOR 22'-10 1/2"

T.O. PL. 10'-1" A.F.F.

SECOND FLOOR

FINISHED FLOOR 11'-5 1/4"

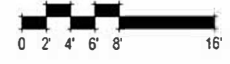
T.O. PL. 10'-1" A.F.F.

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**A11  
LEFT ELEVATION**

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VIEW FROM EL CAMINO REAL

ALTOS ONE

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A32  
BUILDING PERSPECTIVE

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VIEW FROM CORNER OF EL CAMINO REAL / SHOWERS DRIVE

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**A34  
BUILDING PERSPECTIVE**

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PEDESTRIAN VIEW FROM EL CAMINO REAL



VIEW FROM 2ND STORY WINDOW OF APARTMENTS TO THE REAR w/o SCREEN TREES

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A35  
 VIGNETTE PERSPECTIVES

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SOUTH PERSPECTIVE



NORTH PERSPECTIVE



WEST PERSPECTIVE



EAST PERSPECTIVE

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 Los Altos, CA  
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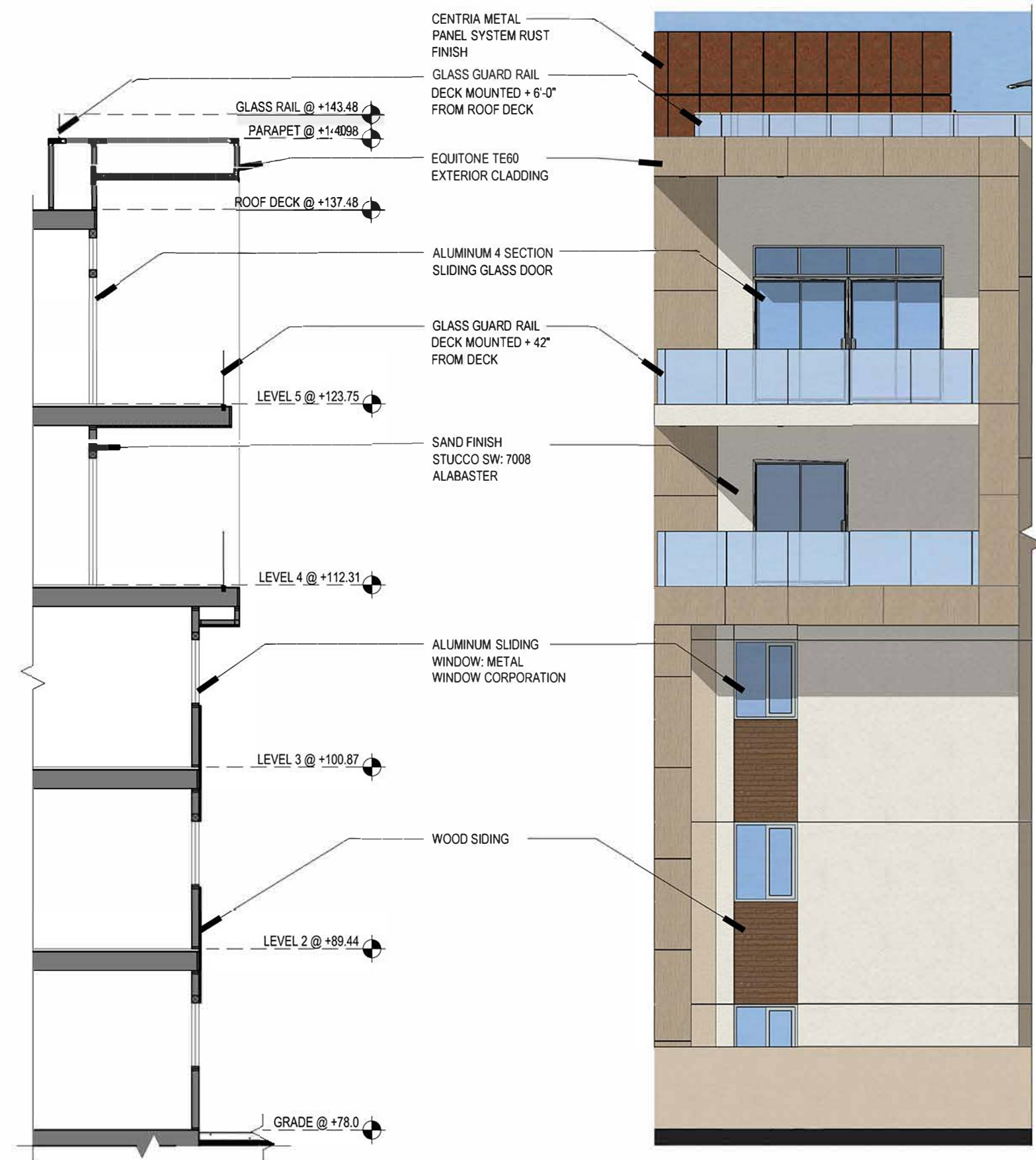
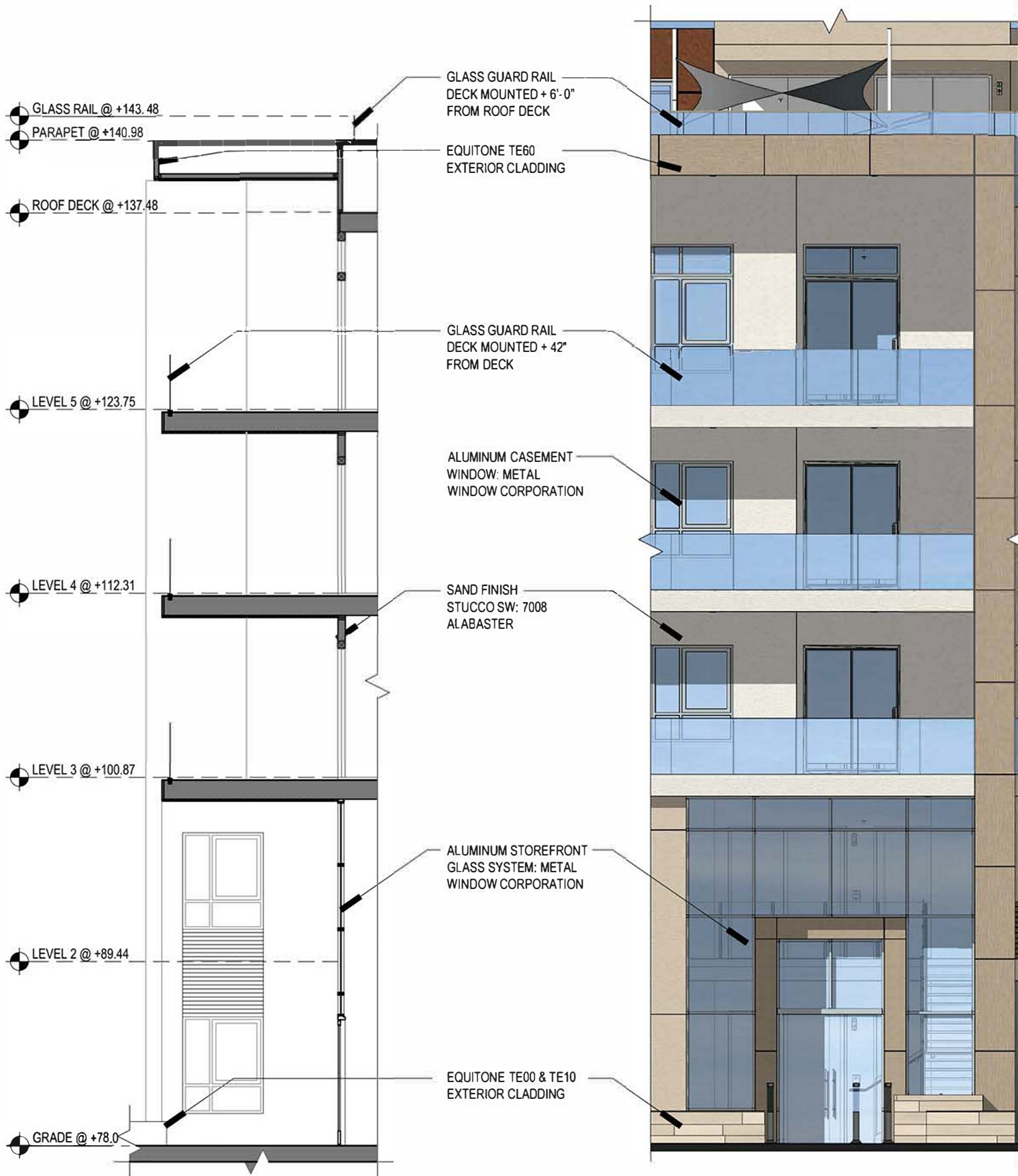
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A36  
 BUILDING PERSPECTIVES

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**ALTOS ONE**  
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 Los Altos, CA  
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**LUXONE LLC**  
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**A40**  
**WALL SECTIONS & DETAILS**

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**ALTOS ONE**

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 October 15, 2018

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**A42  
 WALL SECTIONS & DETAILS**

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**ALTOS ONE**

4846 & 4856 El Camino Real  
 Los Altos, CA  
 July 18, 2018

**LUXONE LLC**

572 Chimalus Dr.  
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**UNIT AREA SUMMARY**

UNIT	SQUARE FOOTAGE	NUMBER OF UNITS IN BUILDING	TOTAL SQ FT. OF UNITS IN BUILDING	UNIT MAKEUP		OCC. LOAD PER UNIT	TOTAL OCC. LOAD
				BEDROOMS	BATHS		
1A	782	5	3,910	1	1.0	3.91	19.55
1B	785	3	2,355	1	1.0	3.93	11.78
1C	902	1	902	1	1.0	4.51	4.51
2A	1081	2	2,162	2	2.0	5.41	10.81
2B	1169	9	10,521	2	2.0	5.85	52.61
2C	1308	2	2,616	2	2.0	6.54	13.08
2D	1353	3	4,059	2	2.0	6.77	20.30
2E	1430	3	4,290	2	2.0	7.15	21.45
2F	1407	3	4,221	2	2.0	7.04	21.11
2G	1451	3	4,353	2	2.5	7.26	21.77
2H	1546	5	7,730	2	2.5	7.73	38.65
3A	1569	3	4,707	3	2.0	7.85	23.54
3B	2053	2	4,106	3	3.5	10.27	20.53
3C	2159	2	4,318	3	3.5	10.80	21.59
3D	2140	2	4,280	3	3.5	10.70	21.40
3E	2302	2	4,604	3	3.5	11.51	23.02
FITNESS	791	1	791	0	0.0	3.96	3.96
FAMILY/GATHERING	911	1	911	0	0.0	4.56	4.56
<b>TOTAL BUILDING</b>		<b>50</b>	<b>70,836</b>				<b>354.18</b>

**AFFORDABLE HOUSING / DENSITY BONUS**

**AFFORDABLE HOUSING**

- LOT SIZE: 31,576 / 43560 = .72 AC  
ALLOWABLE DENSITY: .725 AC x 38 DU/AC = 27.55 = 28 UNITS
- AFFORDABLE HOUSING PER LAMC  
28 UNITS x 10% BMR = 2.8 = 3 BMR

**DENSITY BONUS**

- AFFORDABLE UNITS = 8 UNITS  
2 MODERATE / 6 VERY LOW  
6 VERY LOW / 28 = 21.4 % = 75.25 % DENSITY BONUS  
28 UNITS X 75.25 % = 50 UNITS  
ACTUAL DENSITY = 69.4 DU/AC  
PROPOSED BUILDING CONFIGURATION  
(4) 1 BEDROOM UNITS 600 SF - 800 SF  
(28) 2 BEDROOM UNITS 1100 SF - 1600 SF  
(10) 3 BEDROOM UNITS 1700 SF - 2150 SF  
PROPOSED BMR UNITS  
(6) 1 BEDROOM VERY LOW INCOME  
(1) 2 BEDROOM MODERATE INCOME  
(1) 3 BEDROOM MODERATE INCOME

**INCENTIVES (15% VERY LOW = 3 INCENTIVES)**

	STANDARD	REQUESTED
1. REAR YARD SETBACK DECREASE BY 20% (4th AND 5th FLOORS ONLY)	100'	60'
2. REAR YARD SETBACK DECREASE BY ADDITIONAL 20 % (4th AND 5th FLOORS ONLY)	100'	60'
3. HEIGHT INCREASE		
FRONT PORTION OF BUILDING INCLUDING INCREASED SETBACK AREA	45'	58'
REAR PORTION OF BUILDING OUTSIDE INCREASED SETBACK AREA	30'	35'

**WAIVERS**

1. ELEVATOR TOWER HEIGHT INCREASE	12'	17'-10.75"
2. 118 SF ROOF STRUCTURE INCREASE*	(4%) 824 SF	(4.6%) 942 SF

\*INCLUDES ELEVATORS, STAIRS, AND TRASH ENCLOSURE

**PARKING STANDARDS**

- PARKING STANDARDS (PER LAMC 14.28.040 SECTION G2a)  
REQUIRED SPACES  
1 SPACE PER 1 BEDROOM UNIT: 9 SPACES  
2 SPACES PER 2+ BEDROOM UNIT: 82 SPACES  
TOTAL REQUIRED: 91 SPACES  
INCLUDES GUEST AND HANDICAPPED SPACES
- PARKING PROVIDED  
TANDEM SPACES: 40 SPACES  
STANDARD SPACES: 65 SPACES  
ADA SPACES: 3 SPACES  
TOTAL PROVIDED: 108 SPACES

**PROJECT DATA SUMMARY**

ADDRESS: 4846 & 4856 EL CAMINO REAL  
LOS ALTOS, CA 94022

ZONING: COMMERCIAL THOROUGHFARE (CT)  
SITE AREA: 31,576 S.F. ( .725 ACRES )

OCCUPANCY: S2 / R2  
CONSTRUCTION TYPE: IA / IIIA

RESIDENTIAL UNITS: 50 UNITS  
ACTUAL DENSITY: 68.96 DU/AC

**UNIT SUMMARY**

(9) 1 BEDROOM UNITS  
(30) 2 BEDROOM UNITS  
(11) 3 BEDROOM UNITS

**BUILDING AREA SUMMARY**

LOWER BASEMENT FLOOR: 25,428 S.F.  
UPPER BASEMENT FLOOR: 25,428 S.F.  
FIRST FLOOR: 18,055 S.F.  
SECOND FLOOR: 18,721 S.F.  
THIRD FLOOR: 18,623 S.F.  
FOURTH FLOOR: 16,760 S.F.  
FIFTH FLOOR: 16,760 S.F.  
TOTAL LIVING: 88,919 S.F.  
GARAGE: 50,856 S.F.

**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

**LUXONE LLC**

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**T2 PROJECT DATA SHEET**

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86 THIRD STREET



86 THIRD STREET



100 FIRST STREET



396 FIRST STREET



960 NORTH SAN ANTONIO ROAD



4750 EL CAMINO REAL

ALTOS ONE

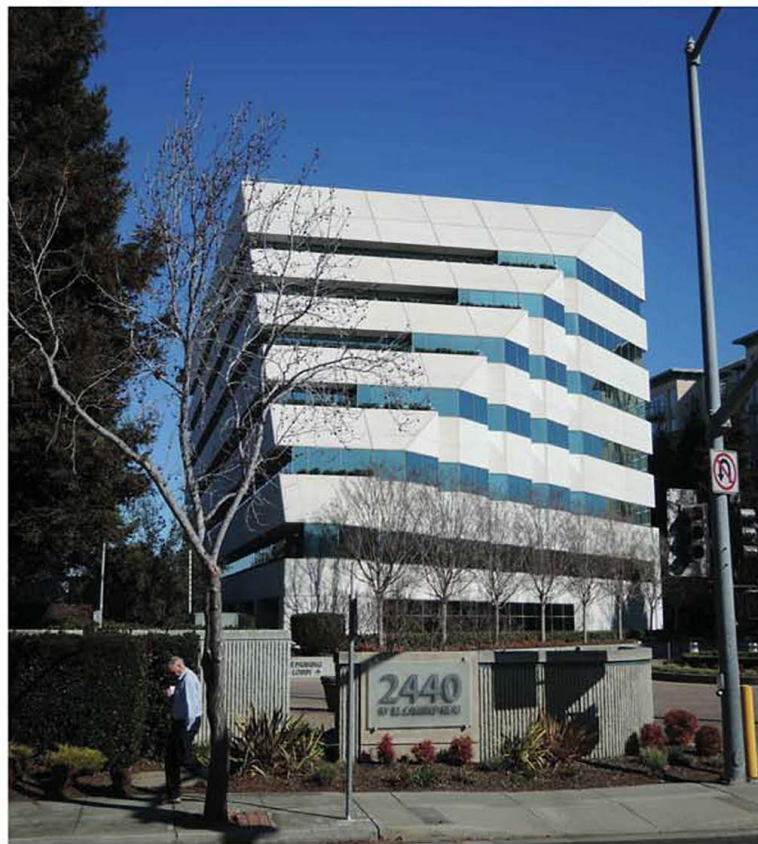
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Los Altos, CA  
July 18, 2018

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LOS ALTOS MULTI-FAMILY





2440 EL CAMINO REAL



2400 EL CAMINO REAL



2350 EL CAMINO REAL



2464 EL CAMINO REAL



4880 EL CAMINO REAL



JACK-IN-THE-BOX

4846 & 4856 EL CAMINO REAL VICINITY

ALTOS ONE  
4846 & 4856 El Camino Real  
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A-02  
CONTEXT

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EL CAMINO VIEW FROM NORTHEAST



EL CAMINO VIEW



VIEW FROM ACROSS EL CAMINO



VIEW TOWARDS REAR PROPERTY LINE



VIEW TOWARDS REAR PROPERTY LINE



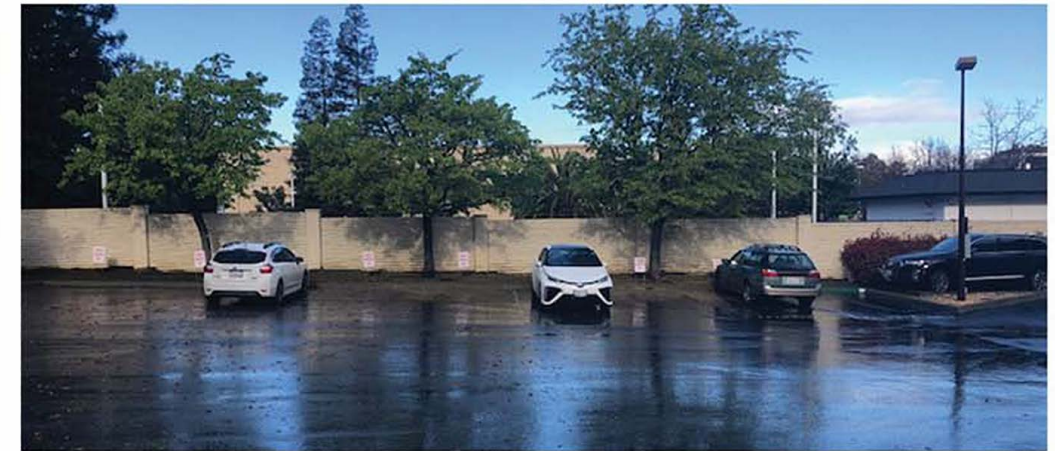
VIEW FROM REAR PROPERTY LINE



VIEW FROM WEST (SEE'S CANDIES)



VIEW FROM SOUTHEAST (JACK-IN-THE-BOX)



VIEW FROM EAST PROPERTY LINE

ALTOS ONE

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

LUXONE LLC

572 Chimalus Dr.  
Palo Alto, CA 94306

SITE PHOTOS



STUCCO OVER FOAM TRIM WINDOW FRAME



DOORS AND WINDOWS: METAL WINDOW CORPORATION



DECK MOUNTED GLASS GAURD RAILINGS



SIDING: KEBONY CLEAN 90° SHIPLAP CLADDING



CENTRIA ARCHITECTURAL METAL PANELS  
RUST FINISH

ALTOS ONE

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

LUXONE LLC

572 Chimalus Dr.  
Palo Alto, CA 94306

PROJECT MATERIALS

**BUILDING EXIT ANALYSIS PLAN**

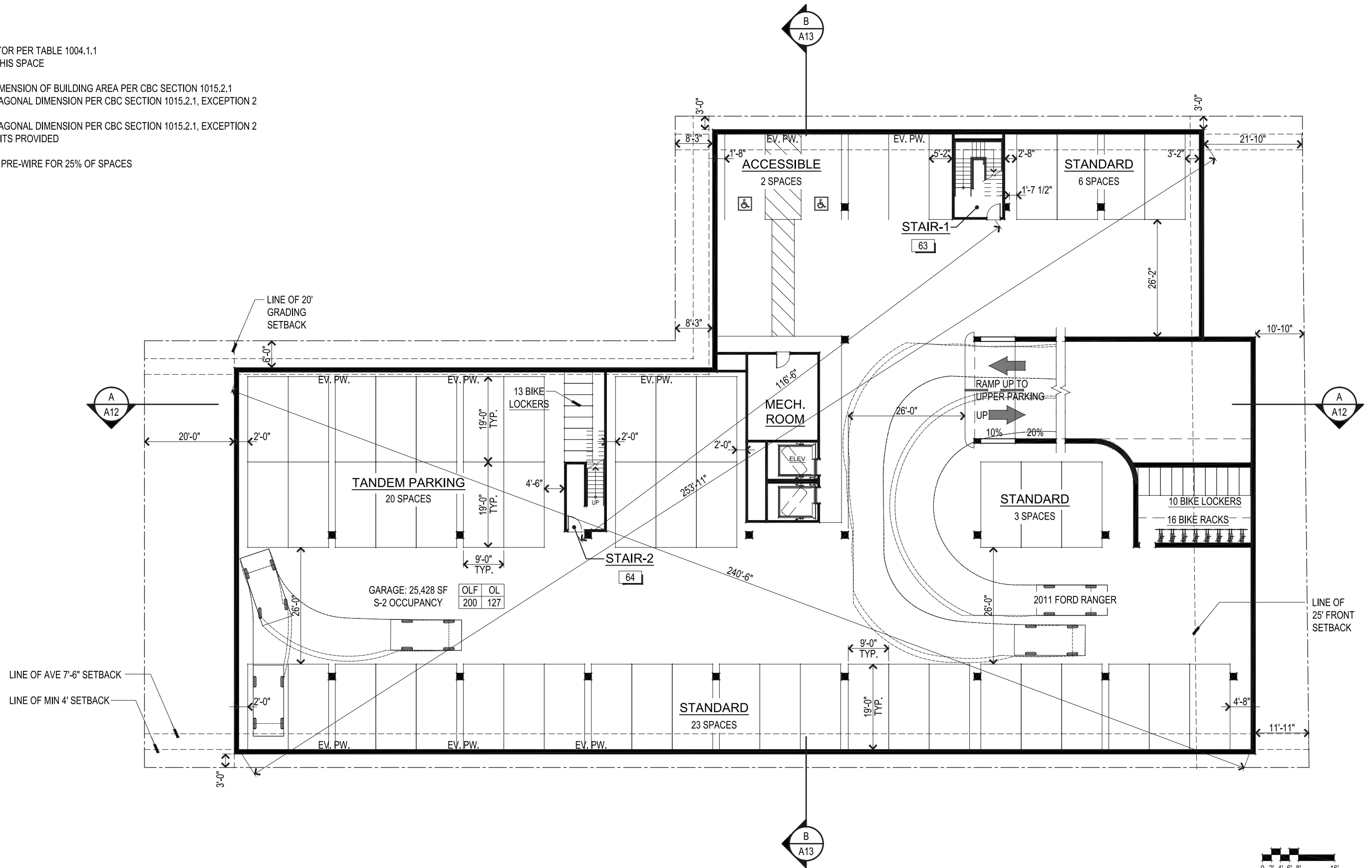
**25** OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	127	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
253'	84'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
28'	85'	DE = DISTANCE BETWEEN EXITS PROVIDED

EV. PW. PROVIDE ELECTRIC VEHICLE PRE-WIRE FOR 25% OF SPACES

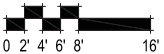


**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

**LUXONE LLC**

572 Chimalus Dr.  
Palo Alto, CA 94306



**A0**  
**LOWER LEVEL BASEMENT FLOOR PLAN**

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
925.634.7000  
www.strausdesign.com



SDG Architects, Inc.



**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	127	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
253'	84'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
28'	85'	DE = DISTANCE BETWEEN EXITS PROVIDED

EV. PW. PROVIDE ELECTRIC VEHICLE PRE-WIRE FOR 25% OF SPACES

**PARKING STANDARDS**

- PARKING STANDARDS (PER LAMC 14.28.040 SECTION G2)

**REQUIRED SPACES**

1 SPACE PER 1 BEDROOM UNIT:	9 SPACES
2 SPACES PER 2+ BEDROOM UNIT:	82 SPACES
TOTAL REQUIRED:	91 SPACES

INCLUDES GUEST AND HANDICAPPED SPACES

**PROVIDED SPACES**

TANDEM PARKING:	40 SPACES
STANDARD PARKING:	65 SPACES
ACCESSIBLE PARKING:	3 SPACES
TOTAL PROVIDED:	108 SPACES

**TRASH MANAGEMENT PLAN**

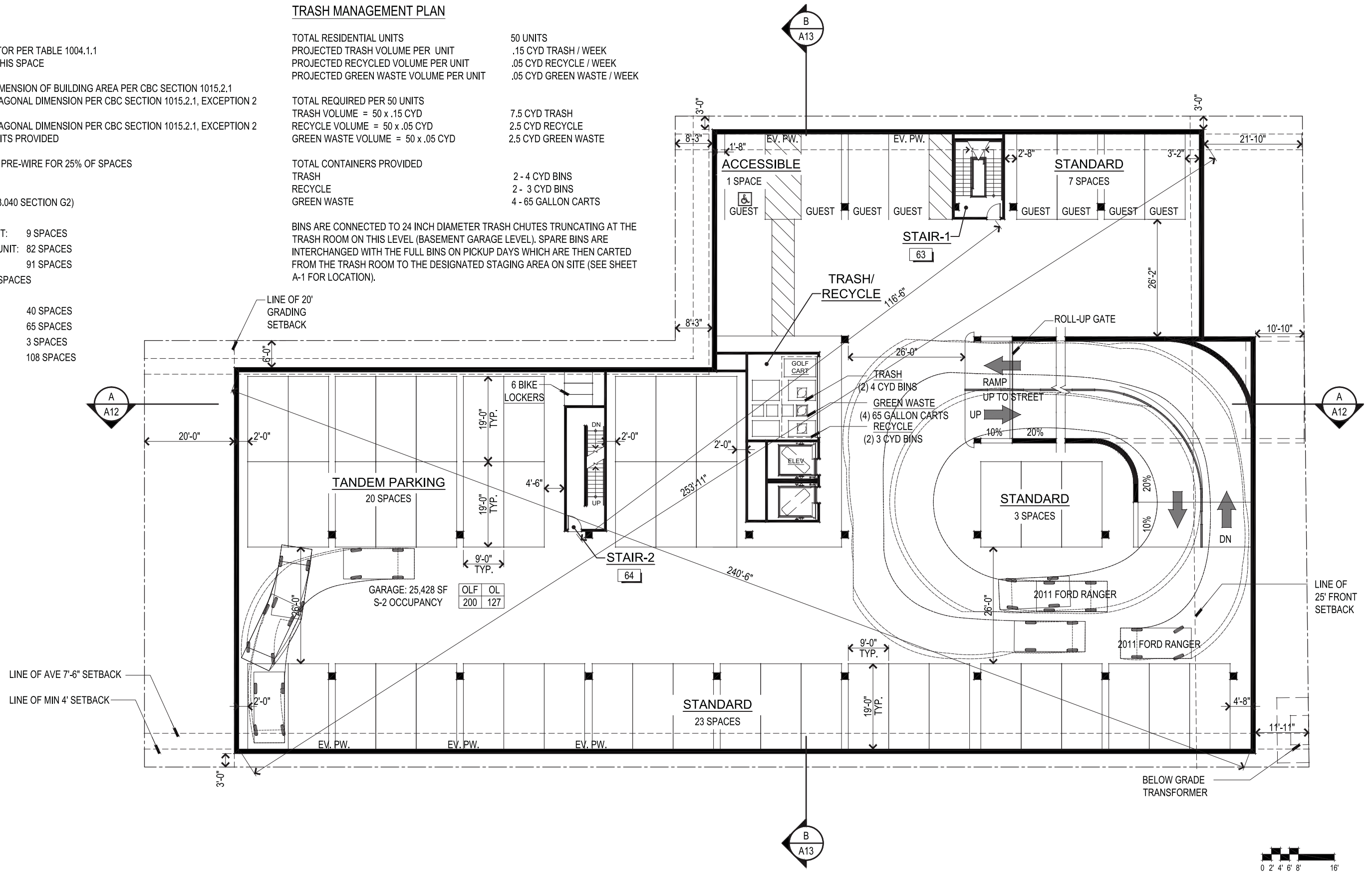
TOTAL RESIDENTIAL UNITS	50 UNITS
PROJECTED TRASH VOLUME PER UNIT	.15 CYD TRASH / WEEK
PROJECTED RECYCLED VOLUME PER UNIT	.05 CYD RECYCLE / WEEK
PROJECTED GREEN WASTE VOLUME PER UNIT	.05 CYD GREEN WASTE / WEEK

TOTAL REQUIRED PER 50 UNITS	7.5 CYD TRASH
TRASH VOLUME = 50 x .15 CYD	2.5 CYD RECYCLE
RECYCLE VOLUME = 50 x .05 CYD	2.5 CYD GREEN WASTE
GREEN WASTE VOLUME = 50 x .05 CYD	

**TOTAL CONTAINERS PROVIDED**

TRASH	2 - 4 CYD BINS
RECYCLE	2 - 3 CYD BINS
GREEN WASTE	4 - 65 GALLON CARTS

BINS ARE CONNECTED TO 24 INCH DIAMETER TRASH CHUTES TRUNCATING AT THE TRASH ROOM ON THIS LEVEL (BASEMENT GARAGE LEVEL). SPARE BINS ARE INTERCHANGED WITH THE FULL BINS ON PICKUP DAYS WHICH ARE THEN CARTED FROM THE TRASH ROOM TO THE DESIGNATED STAGING AREA ON SITE (SEE SHEET A-1 FOR LOCATION).

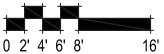


**ALTOS ONE**

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Los Altos, CA  
July 18, 2018

**LUXONE LLC**

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**A1  
UPPER LEVEL BASEMENT FLOOR PLAN**

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**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

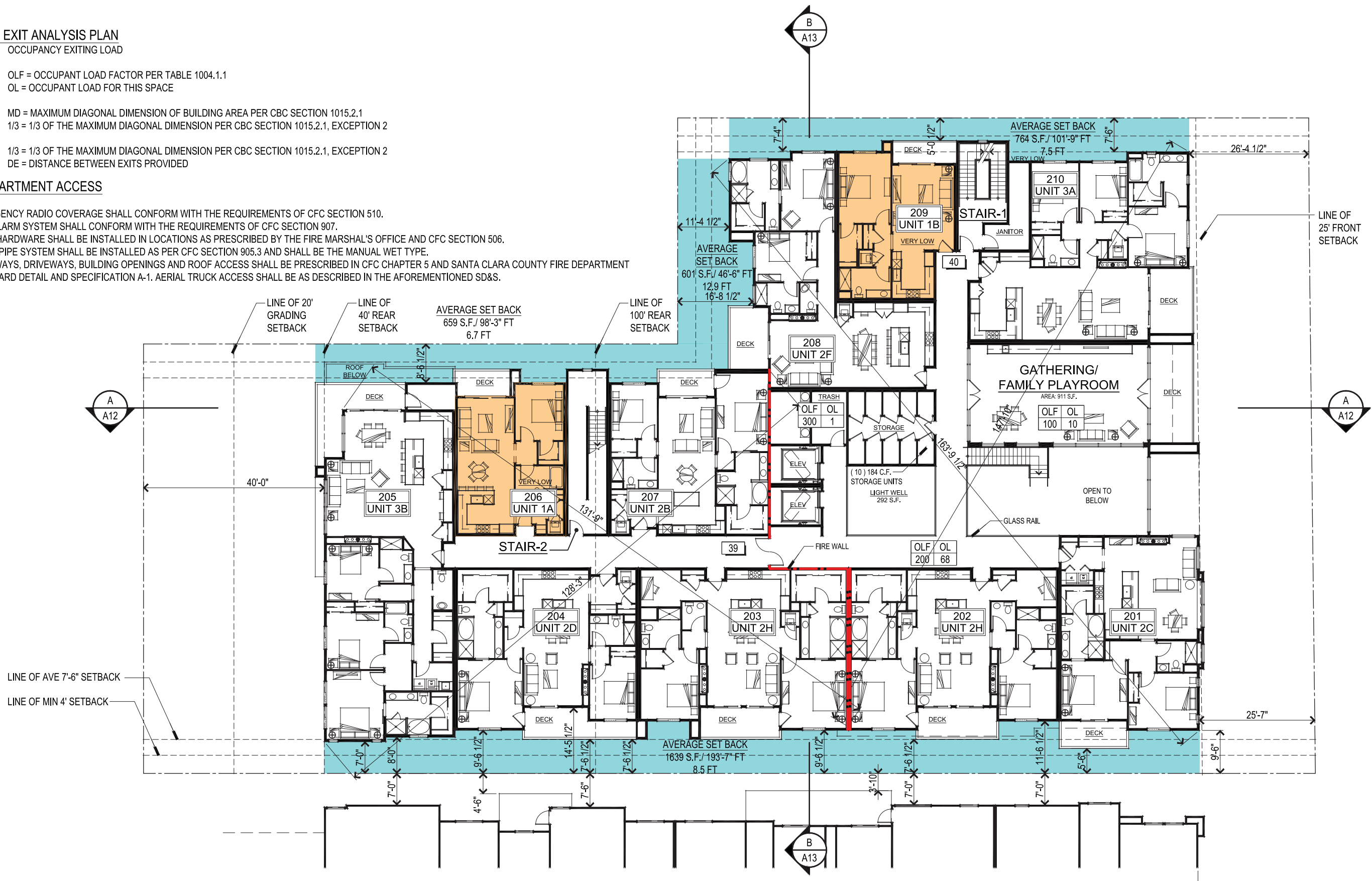
OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	32	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
232'	77"	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
77'	80"	DE = DISTANCE BETWEEN EXITS PROVIDED

**FIRE DEPARTMENT ACCESS**

1. EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
2. FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
3. KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
4. STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
5. ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.

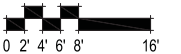


**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

**LUXONE LLC**

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Palo Alto, CA 94306



**A3  
SECOND FLOOR PLAN**

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**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

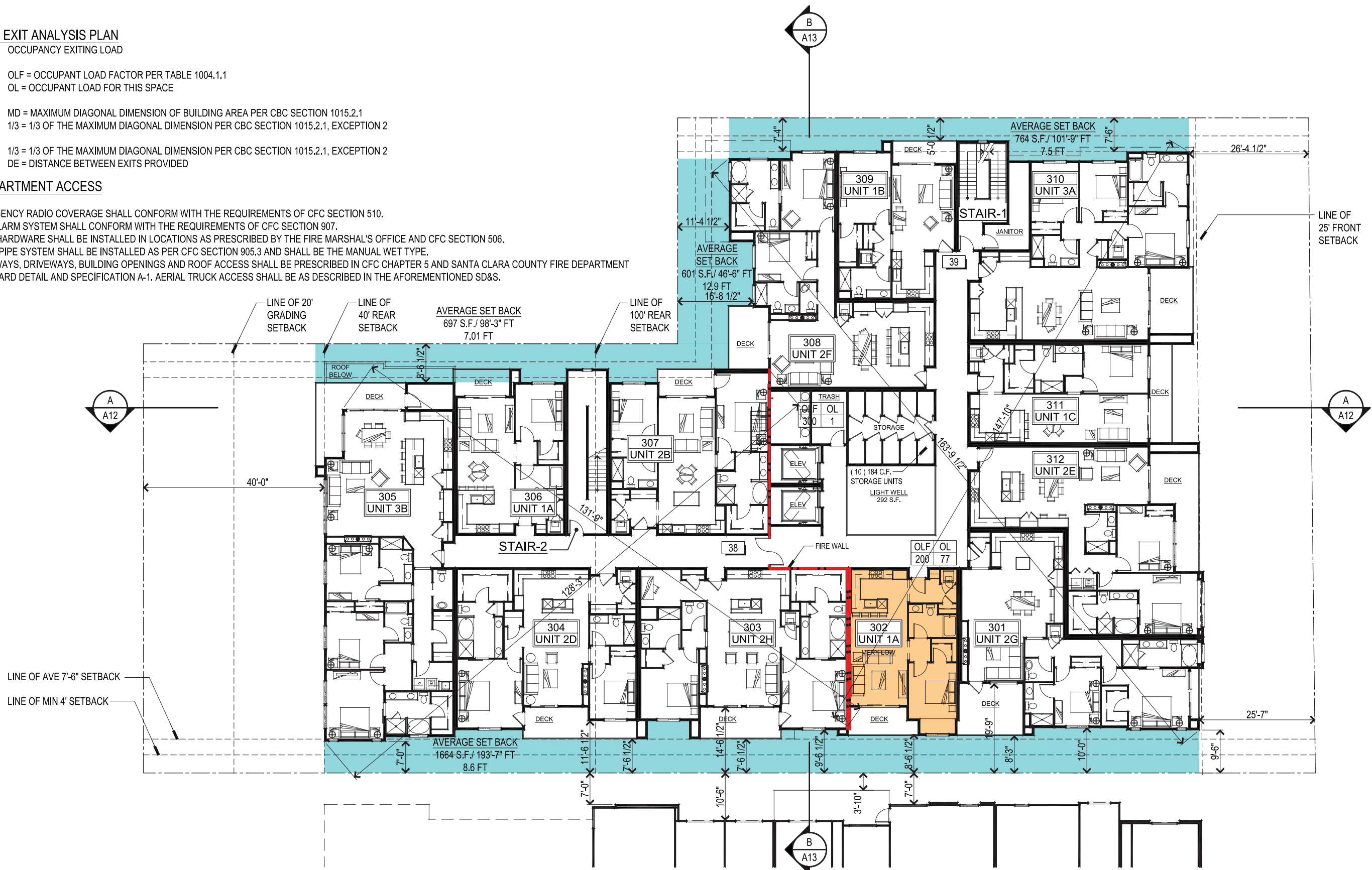
OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	32	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
232'	77"	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
77'	80"	DE = DISTANCE BETWEEN EXITS PROVIDED

**FIRE DEPARTMENT ACCESS**

- EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
- FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
- KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
- STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
- ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.

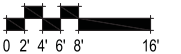


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Los Altos, CA  
July 18, 2018

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572 Chimalus Dr.  
Palo Alto, CA 94306



**A4  
THIRD FLOOR PLAN**

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**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

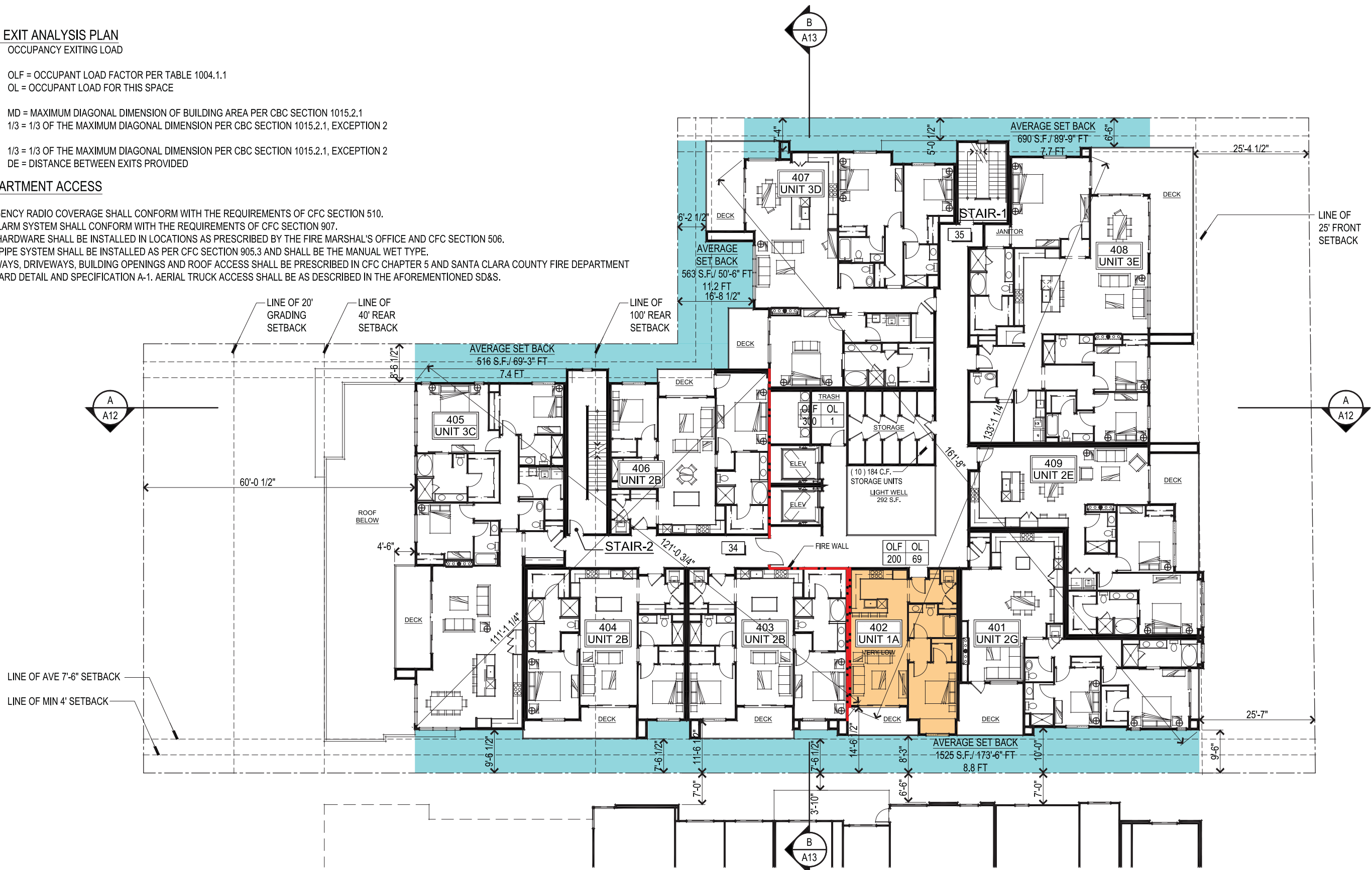
OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	32	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
232'	77"	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
77'	80"	DE = DISTANCE BETWEEN EXITS PROVIDED

**FIRE DEPARTMENT ACCESS**

- EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
- FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
- KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
- STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
- ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.

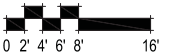


**ALTOS ONE**

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July 18, 2018

**LUXONE LLC**

572 Chimalus Dr.  
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**A5  
FOURTH FLOOR PLAN**

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**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

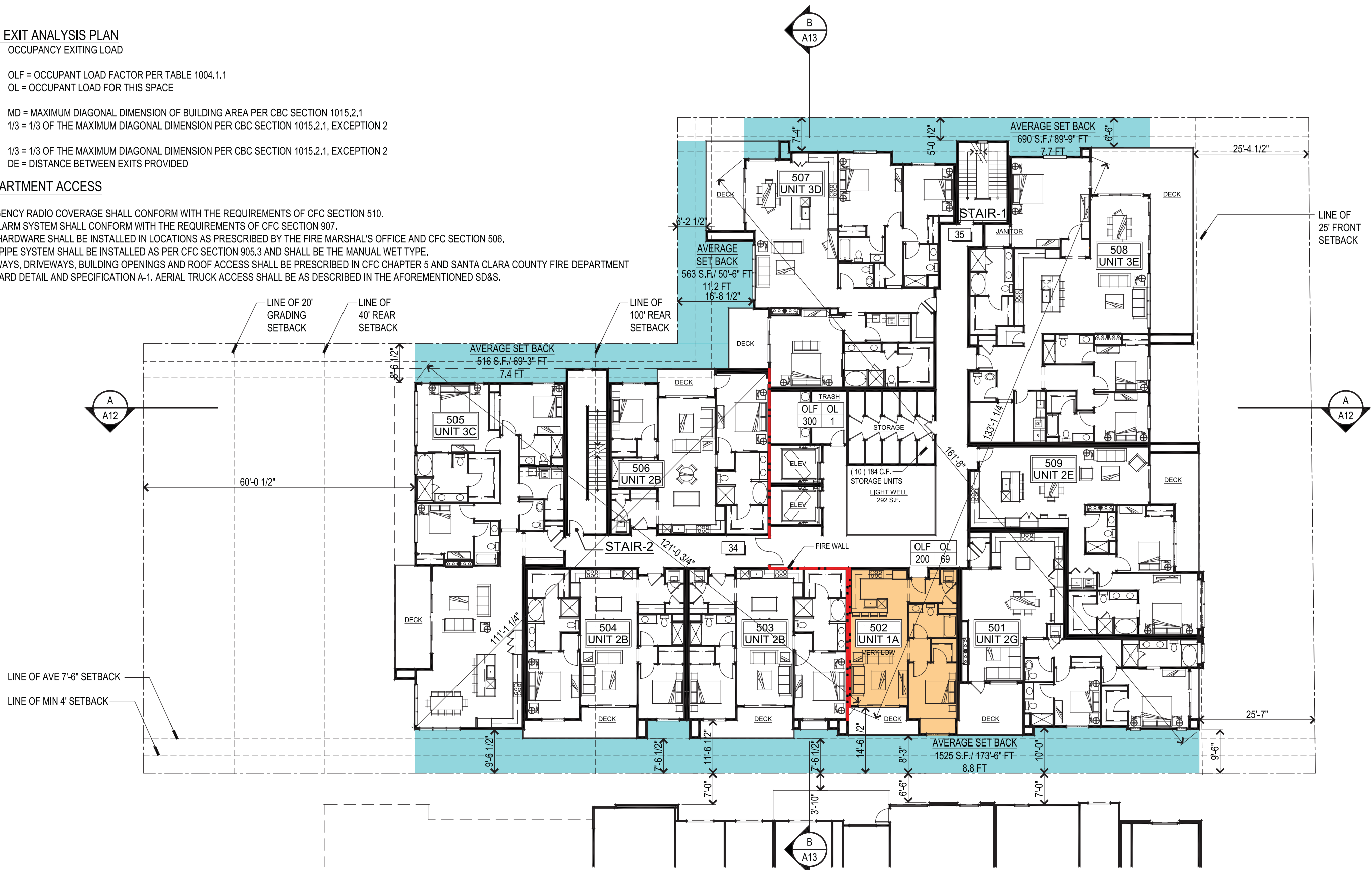
OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
200	32	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
232'	77"	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
77'	80"	DE = DISTANCE BETWEEN EXITS PROVIDED

**FIRE DEPARTMENT ACCESS**

1. EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
2. FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
3. KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
4. STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
5. ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.

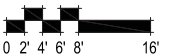


**ALTOS ONE**

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Los Altos, CA  
July 18, 2018

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572 Chimalus Dr.  
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**A6  
FIFTH FLOOR PLAN**

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**BUILDING EXIT ANALYSIS PLAN**

25 OCCUPANCY EXITING LOAD

OLF	OL	OLF = OCCUPANT LOAD FACTOR PER TABLE 1004.1.1
15	32	OL = OCCUPANT LOAD FOR THIS SPACE

MD	1/3	MD = MAXIMUM DIAGONAL DIMENSION OF BUILDING AREA PER CBC SECTION 1015.2.1
123'	41'	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2

1/3	DE	1/3 = 1/3 OF THE MAXIMUM DIAGONAL DIMENSION PER CBC SECTION 1015.2.1, EXCEPTION 2
27'	83"	DE = DISTANCE BETWEEN EXITS PROVIDED

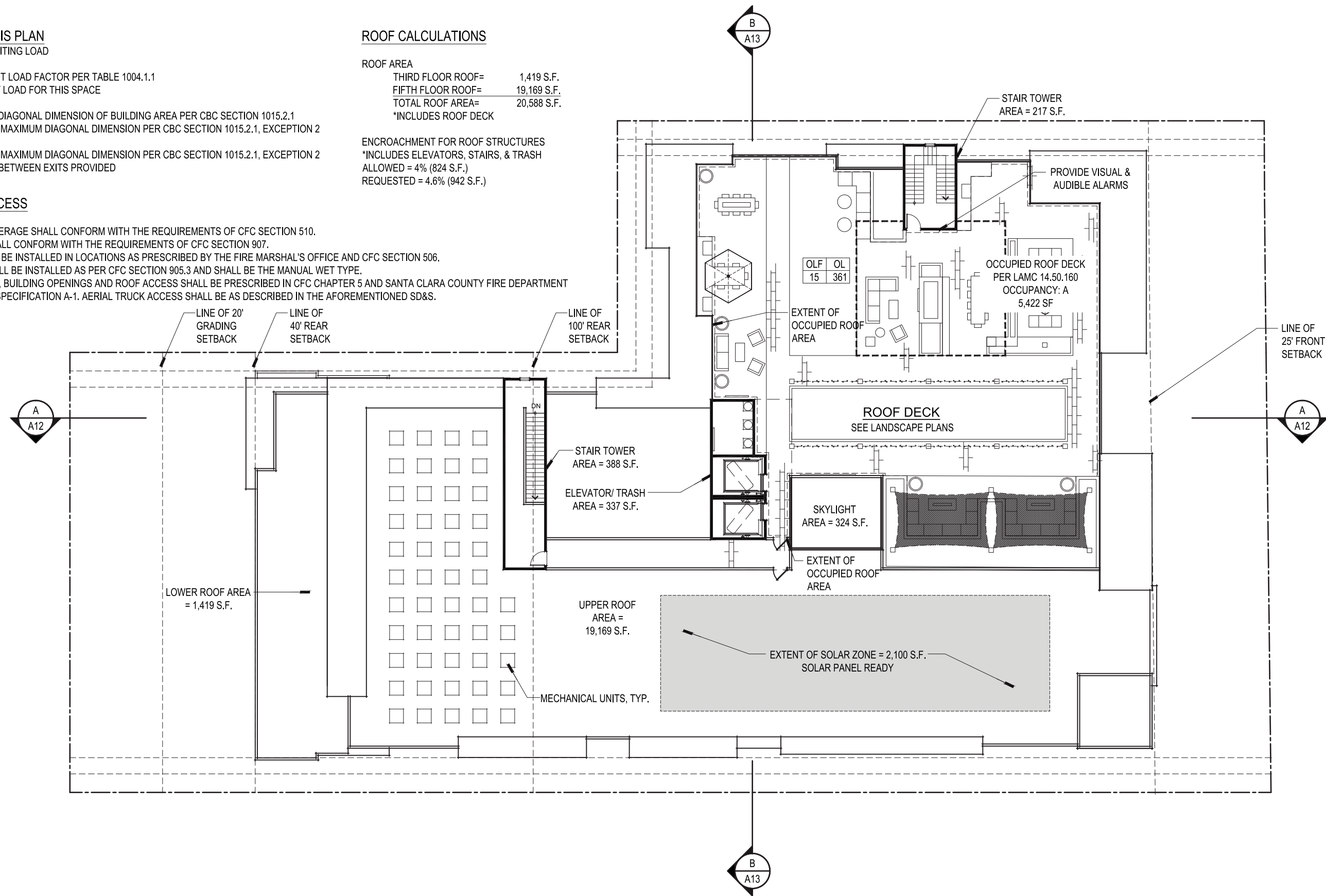
**FIRE DEPARTMENT ACCESS**

- EMERGENCY RADIO COVERAGE SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 510.
- FIRE ALARM SYSTEM SHALL CONFORM WITH THE REQUIREMENTS OF CFC SECTION 907.
- KNOX HARDWARE SHALL BE INSTALLED IN LOCATIONS AS PRESCRIBED BY THE FIRE MARSHAL'S OFFICE AND CFC SECTION 506.
- STANDPIPE SYSTEM SHALL BE INSTALLED AS PER CFC SECTION 905.3 AND SHALL BE THE MANUAL WET TYPE.
- ROADWAYS, DRIVEWAYS, BUILDING OPENINGS AND ROOF ACCESS SHALL BE PRESCRIBED IN CFC CHAPTER 5 AND SANTA CLARA COUNTY FIRE DEPARTMENT STANDARD DETAIL AND SPECIFICATION A-1. AERIAL TRUCK ACCESS SHALL BE AS DESCRIBED IN THE AFOREMENTIONED SD&S.

**ROOF CALCULATIONS**

ROOF AREA  
 THIRD FLOOR ROOF= 1,419 S.F.  
 FIFTH FLOOR ROOF= 19,169 S.F.  
 TOTAL ROOF AREA= 20,588 S.F.  
 \*INCLUDES ROOF DECK

ENCROACHMENT FOR ROOF STRUCTURES  
 \*INCLUDES ELEVATORS, STAIRS, & TRASH  
 ALLOWED = 4% (824 S.F.)  
 REQUESTED = 4.6% (942 S.F.)



**ALTOS ONE**

4846 & 4856 El Camino Real  
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 July 18, 2018

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**A7**  
**ROOF PLAN**

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STUCCO or FOAM WINDOW TRIM

GLASS BALCONY GUARD

ARCHITECTURAL METAL PANELS: RUST FINISH

PERFORATED METAL RAILING, COLOR TO MATCH METAL PANELS

SAND TEXTURE STUCCO FINISH

WOOD BALCONY GUARD

BOARD FORMED CONCRETE PRIVACY WALL AND PLANTER

ELEVATOR TOWER HEIGHT 75'-10 3/4"

STAIR TOWER 69'-11 3/4"

GLASS RAIL 65'-5 3/4"

PARAPET HEIGHT 62'-11 3/4"

ROOF DECK FINISHED FLOOR 59'-5 3/4"

T.O. PL. 11'-1" A.F.F.

FIFTH FLOOR FINISHED FLOOR 45'-9"

T.O. PL. 10'-1" A.F.F.

FOURTH FLOOR FINISHED FLOOR 34'-3 3/4"

T.O. PL. 10'-1" A.F.F.

THIRD FLOOR FINISHED FLOOR 22'-10 1/2"

T.O. PL. 10'-1" A.F.F.

SECOND FLOOR FINISHED FLOOR 11'-5 1/4"

T.O. PL. 10'-1" A.F.F.

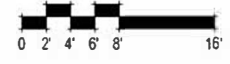
PROPERTY LINE

PROPERTY LINE

See's CANDIES.

ALTOS ONE  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

LUXONE LLC  
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A8  
FRONT ELEVATION

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**ALTOS ONE**

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 Los Altos, CA  
 July 18, 2018

**LUXONE LLC**

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**A9  
 RIGHT ELEVATION**

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**ALTOS ONE**

4846 & 4856 El Camino Real  
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**A10  
 REAR ELEVATION**

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ARCHITECTURAL METAL  
PANELS: RUST FINISH

GLASS BALCONY GUARD

SAND TEXTURE  
STUCCO FINISH

STUCCO w/ FOAM  
WINDOW TRIM

BOARD FORMED CONCRETE  
PRIVACY WALL AND PLANTER

PROPERTY LINE

ELEVATOR TOWER HEIGHT 75'-10 3/4"

STAIR TOWER 69'-11 3/4"

GLASS RAIL 65'-5 3/4"  
PARAPET HEIGHT 62'-11 3/4"

ROOF DECK

FINISHED FLOOR 59'-5 3/4"

T.O. PL. 11'-1" A.F.F.

FIFTH FLOOR  
FINISHED FLOOR 45'-9"

T.O. PL. 10'-1" A.F.F.

FOURTH FLOOR  
FINISHED FLOOR 34'-3 3/4"

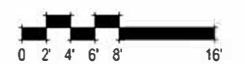
T.O. PL. 10'-1" A.F.F.

THIRD FLOOR  
FINISHED FLOOR 22'-10 1/2"

T.O. PL. 10'-1" A.F.F.

SECOND FLOOR  
FINISHED FLOOR 11'-5 1/4"

T.O. PL. 10'-1" A.F.F.



A11  
LEFT ELEVATION

ALTOS ONE

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

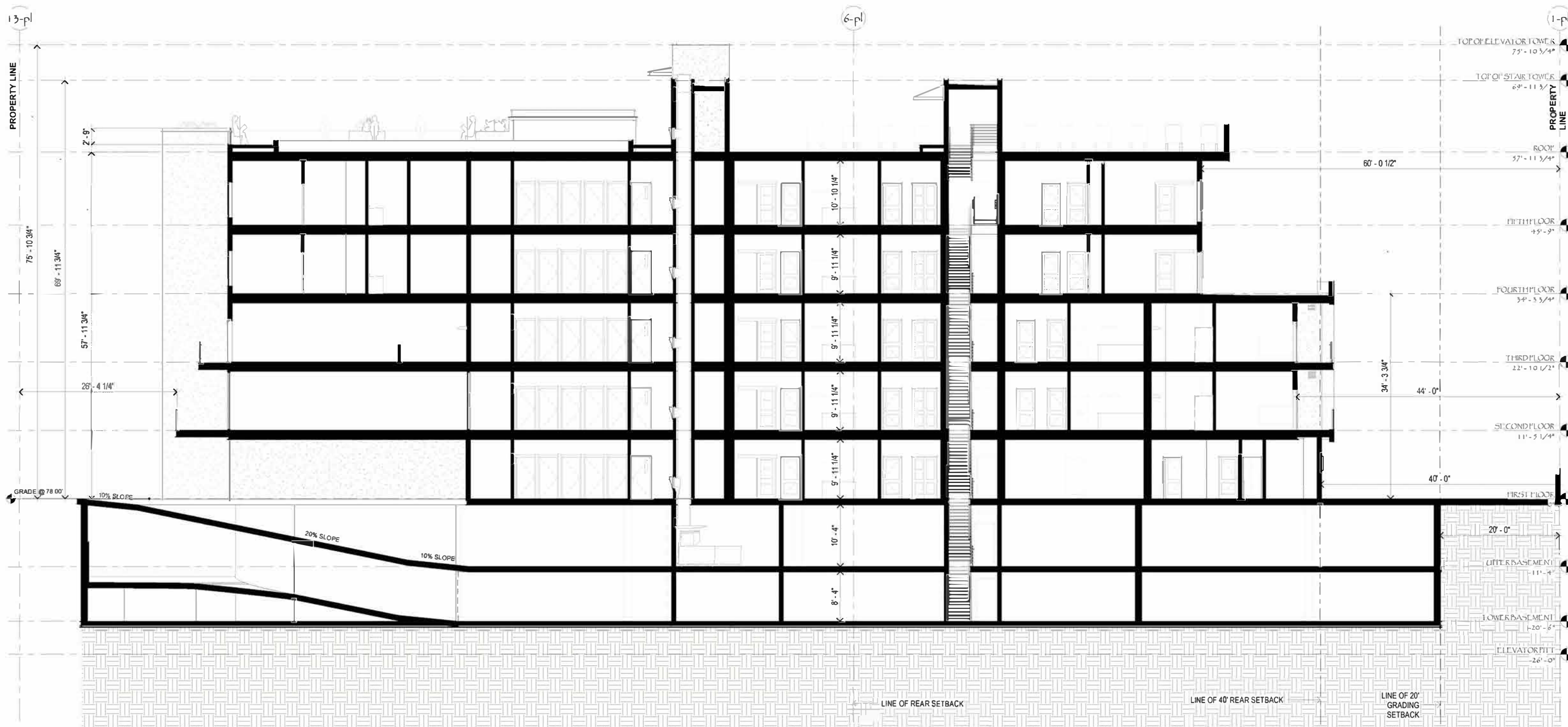
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ALTOS ONE  
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 Los Altos, CA  
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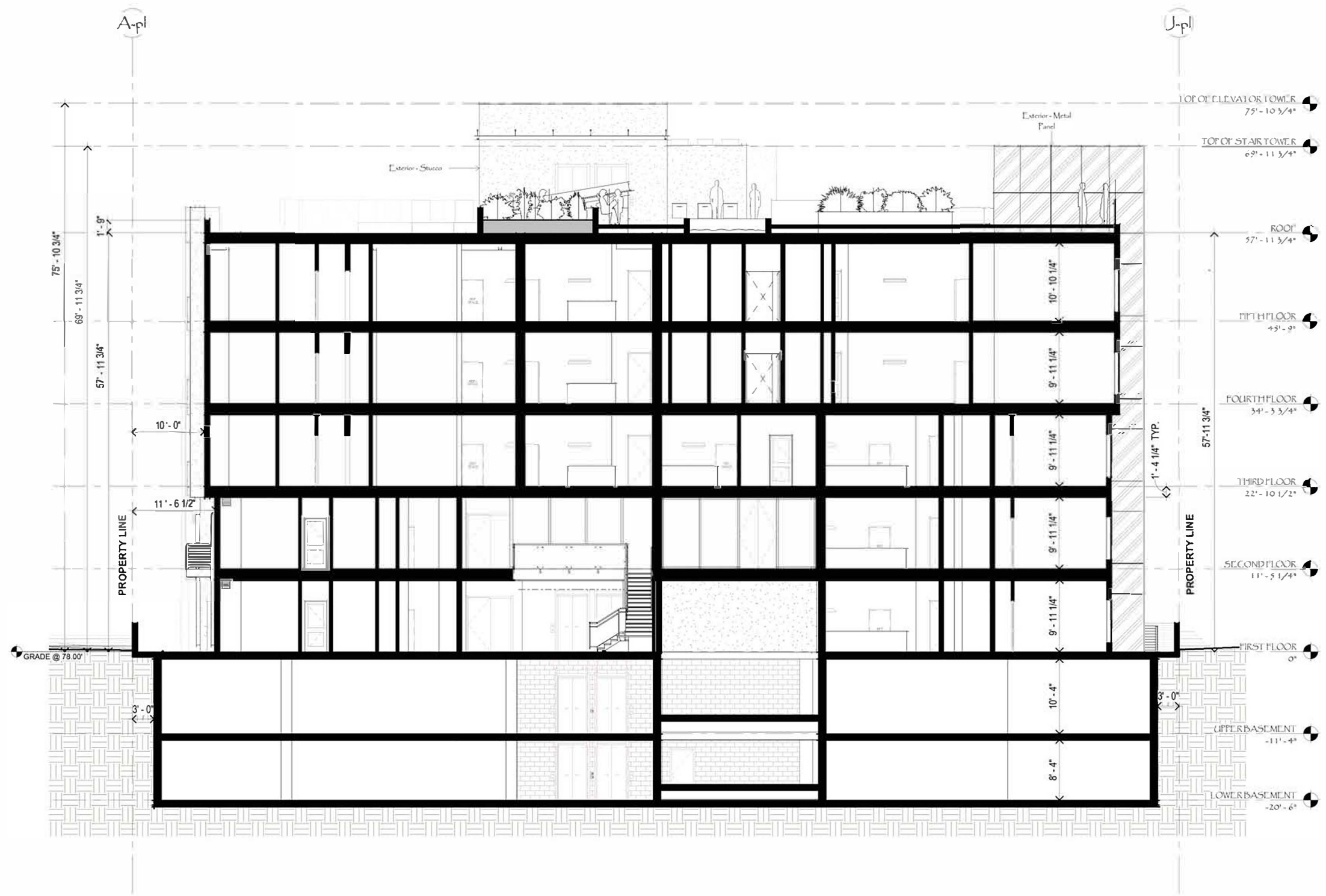


A12  
 BUILDING SECTION A

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ALTOS ONE  
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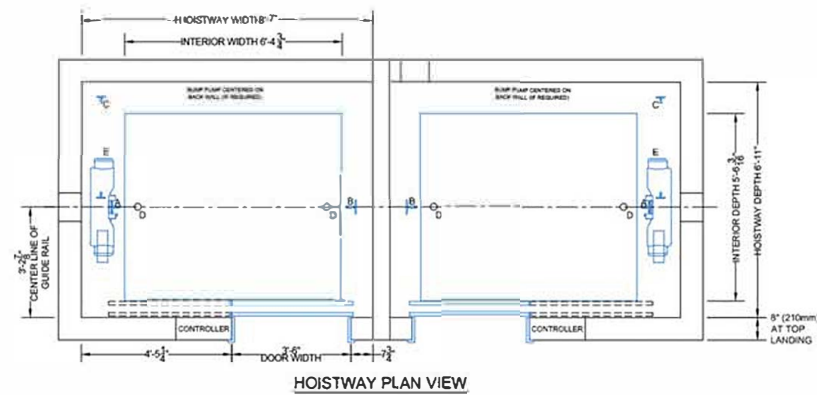
A13  
 BUILDING SECTION B

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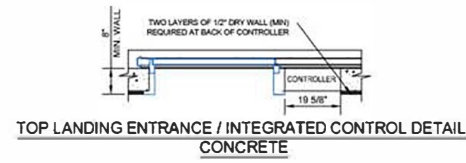


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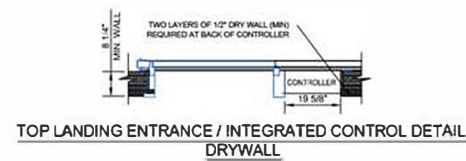




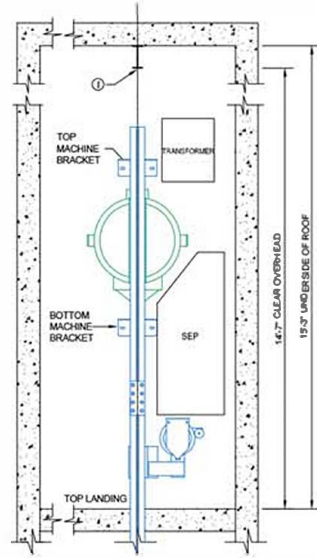
HOISTWAY PLAN VIEW



TOP LANDING ENTRANCE / INTEGRATED CONTROL DETAIL CONCRETE



TOP LANDING ENTRANCE / INTEGRATED CONTROL DETAIL DRYWALL



ELEVATION IN HOISTWAY LOOKING AT MACHINE

BRKTS ABOVE TOPMOST LANDING - IMPACT LOADING REACTIONS (lb)			
REACTION LOCATION	A	B	C
X DIRECTION	1500	240	50
Y DIRECTION	530	1570	100

BRKTS BELOW TOPMOST LANDING - RUNNING REACTIONS (lb)			
REACTION LOCATION	A	B	C
X DIRECTION	200	240	50
Y DIRECTION	200	110	100

MAX DEFLECTION NOT TO EXCEED 0.25" (6mm) DUE TO APPLIED LOADS

SEISMIC ZONE 3 & 4 - ALL BRKTS LOCATIONS - IMPACT LOADING (lb)			
REACTION LOCATION	A	B	C
X DIRECTION	2200	2000	1100
Y DIRECTION	2100	1500	2100

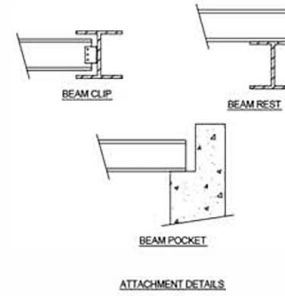
MAX DEFLECTION NOT TO EXCEED 0.25" (6mm) DUE TO APPLIED LOADS

\*ORTHOGONAL REACTIONS DO NOT OCCUR SIMULTANEOUSLY  
 \*CALCULATIONS BASED UPON IBC SEISMIC ZONE 3 & 4 AND IBC 1911.5.3b + 1.0  
 \*ACCEPTABLE GUIDE RAIL BRACKET ATTACHMENT MATERIAL: CONCRETE, STEEL OR INSERTS

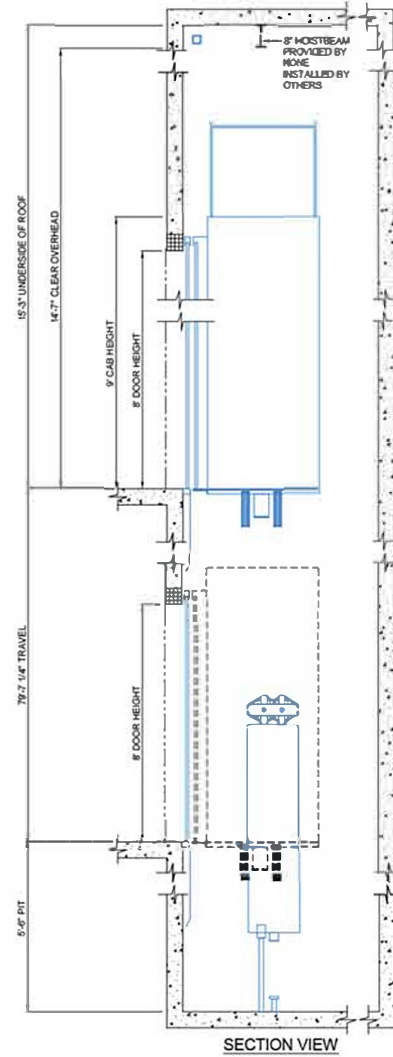
VERTICAL FORCES ONTO PIT FLOOR (lb)					
REACTION LOCATION	A	B	C	D	E
Z DIRECTION	21600	10700	8000	8800	13800

\*VERTICAL REACTIONS A, B & C OCCUR SIMULTANEOUSLY. VERTICAL REACTIONS D & E OCCUR INDIVIDUALLY AND SEPARATELY FROM A, B & C.

HOISTBEAM & LIFELINE VERTICAL FORCES (lb)				
REACTION LOCATION	A	B	C	D
Z DIRECTION	4800	4700	5000	5000



FLOOR BY FLOOR HEIGHTS CHART					
LANDING 5	11'-5.25"	LANDING 10	N/A	LANDING 15	N/A
LANDING 4	11'-3.25"	LANDING 9	N/A	LANDING 14	N/A
LANDING 3	11'-3.25"	LANDING 8	8'-0"	LANDING 13	N/A
LANDING 2	11'-7"	LANDING 7	13'-4.25"	LANDING 12	N/A
LANDING 1	9'-4"	LANDING 6	11'-3.25"	LANDING 11	N/A



SECTION VIEW

SCALE: NOT TO SCALE

RE-OPEN CONFIGURATION IN THE TOOLBOX: <http://architecttoolbox.kone.us/Mono500?savedConfigurationID=46385>

PREPARATORY WORK BY OTHERS: THE CUSTOMER OR CUSTOMER'S CONTRACTOR, SHALL BE RESPONSIBLE FOR THE FOLLOWING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AT NO COST TO KONE, INC. LOCAL CODES SHALL PREVAIL WHEN APPLICABLE.

- PROVIDE A CLEAR, PLUMB HOISTWAY OF THE SIZE SHOWN ON THE FINAL KONE LAYOUT. VARIATIONS MUST NOT EXCEED 1" (TOLERANCE = 0" - 1").
- PROVIDE ADEQUATE SUPPORT FOR GUIDE RAIL BRACKETS (IMP. LEADING GUIDE BEAMS FOR MULTIPLE ELEVATORS IN A COMMON HOISTWAY) FROM PIT FLOOR TO THE TOP OF THE HOISTWAY AND NOT SPANNING FURTHER THAN ALLOWED BY THE GOVERNING CODE AUTHORITY. PREPROOFING SHALL BE AFTER INSTALLATION OF BRACKETS.
- HOISTWAY VENTILATION SHALL BE PROVIDED PER CODE REQUIREMENTS.
- PROJECTIONS REQUIRING BEVELING IN ACCORDANCE WITH CODE REQUIREMENTS SHALL BE BEVELED AT AN ANGLE NOT LESS THAN 75 DEGREES FROM THE HORIZONTAL.
- PROVIDE REMOVABLE, OSHA COMPLIANT BARRICADES AROUND ALL HOISTWAY OPENINGS AND BETWEEN ELEVATORS INSIDE OF THE HOISTWAY AS REQUIRED. PROVIDE TWO LIFELINE ATTACHMENTS AT THE TOP, FRONT OF THE HOISTWAY.
- ARRANGE FOR ALL BLOCK OUT / CIRCUIT OF OPENINGS TO INSTALL HALL PUSHBUTTONS, SIGNAL FIXTURES, AND HATCH DUCT.
- PROVIDE A DRY PIT REINFORCED TO SUSTAIN VERTICAL FORCES FROM RAILS AND BUFFERS. REFERENCE THE REACTION LOAD TABLES FOR VERTICAL FORCES. PUMPS AND/OR PUMPS (WHERE PERMITTED) LOCATED WITHIN THE PIT MAY NOT INTERFERE WITH THE ELEVATOR EQUIPMENT.
- PROVIDE SUITABLE LIGHTING FOR THE MACHINE SPACE WITH A LIGHT SWITCH LOCATED IN THE HOISTWAY. PROVIDE A LIGHT FIXTURE AND A SEPARATE GFCI PROTECTED DUPLEX CONVENIENCE OUTLET IN THE ELEVATOR PIT.
- ENTRANCE WALLS ARE TO BE LEFT OPEN UNTIL THE ELEVATOR EQUIPMENT IS INSTALLED. ADEQUATE SUPPORT FOR ENTRANCE ATTACHMENT POINTS IS REQUIRED AT ALL LANDINGS. ALL FINISHED FLOORING AND GROUING IS TO BE INSTALLED AFTER THE ENTRANCE FRAMES ARE INSTALLED.
- A PIT LADDER IS SUPPLIED BY KONE UNLESS OTHERWISE NOTED ON THE LAYOUT DRAWING. LOCATE AND INSTALL PER KONE FINAL LAYOUT DRAWINGS.

- AN I-BEAM, PROVIDED BY KONE, MUST BE INSTALLED IN THE ELEVATOR HOISTWAY OVERHEAD PER THE KONE FINAL LAYOUT DRAWINGS.
- FOR PROPER EQUIPMENT OPERATION, THE MACHINE SPACE AT THE TOP OF THE HOISTWAY MUST BE PROPERLY VENTED PER CODE REQUIREMENTS. MAX ALLOWED HUMIDITY IS 95% RH IN CONDENSING. HOISTWAY MUST MAINTAIN A TEMPERATURE BETWEEN 41 F AND 104 F.
- THE ACCESS DOOR TO THE CONTROL SPACE OR THE CONTROL ROOM MUST BE SECURED AGAINST UNAUTHORIZED ACCESS. IT SHALL BE SELF-LOCKING AND SELF-CLOSING.
- PROVIDE A 15-AMP 120V-AC FUSED SERVICE WITH GROUND (VIA EMERGENCY LIGHT SUPPLY IF AVAILABLE) CONNECTED TO EACH CONTROL CABINET FOR LIGHTING AND FAN. PROVIDE DEDICATED PHONE LINE TERMINATING AT THE ELEVATOR CONTROL CABINET.
- FOR CONTROL SPACES LOCATED REMOTELY FROM THE ELEVATOR HOISTWAY, PROVIDE A GOVERNOR ACCESS DOOR OF SIZE AND LOCATION PER KONE FINAL LAYOUT DRAWINGS. THE ACCESS DOOR SHALL BE SECURED AGAINST UNAUTHORIZED ACCESS.
- FOR INTEGRATED CONTROL SPACE LOCATED IN SEISMIC AREA, PROVIDE A SEISMIC SWITCH ACCESS DOOR OF SIZE AND LOCATION PER KONE FINAL LAYOUT DRAWINGS. THE ACCESS DOOR SHALL BE SECURED AGAINST UNAUTHORIZED ACCESS.
- PROVIDE A SUITABLE WORKING ENVIRONMENT INCLUDING ADEQUATE ACCESS TO THE BUILDING, PROPER LIGHTING IN ALL AREAS, CLEAN AND SAFE STORAGE ADJACENT TO THE HOISTWAY, AND SUFFICIENT ON-SITE REFUSE CONTAINERS FOR THE DISPOSAL OF ELEVATOR PACKING MATERIALS.
- THIS DRAWING MUST BE REVIEWED AND APPROVED BY A LICENSED PROFESSIONAL TO ENSURE COMPLIANCE WITH LOCAL BUILDING CODES.
- THESE DRAWINGS ARE FOR INFORMATION PURPOSES ONLY AND MUST NOT BE USED FOR CONSTRUCTION PURPOSES. FULLY DETAILED CONSTRUCTION DRAWINGS ARE AVAILABLE FROM THE PRODUCT MANUFACTURER.

**KONE MonoSpace** ONE KONE COURT  
 MELBURN, PA 15201-9568 KONE (5683)  
 F. F. 303-743-5409  
 www.kone.com

SPECIFICATIONS		
PRODUCT NAME: KONE MONOSPACE 500 ELEVATOR	BUILDING (PROJECT NAME)	LOCATION
SEISMIC CAPACITY: 3500 LB	ALTOS ONE	LOS ALTOS CA
SPEED: 350 FPM	ARCHITECT	DATE
DOOR: RIGHT/LEFT OPENINGS	JEFF POTTS	17/01/2018
TRAVEL: 7' 7.25"	DRAWING#	SHEET
CONTROL LOCATION: INTEGRATED		1
POWER SUPPLY: 480V	PKID: 46385	
REQUIRED FUSE AMPS: 40.0 amps		
CONTROLLER HEAT OUTPUT: 3.4 MBTU/hr		
MACHINE HEAT OUTPUT: 3.4 MBTU/hr		

ALTOS ONE  
 4846 & 4856 El Camino Real  
 Los Altos, CA  
 July 18, 2018

LUXONE LLC  
 572 Chimalus Dr.  
 Palo Alto, CA 94306

A15  
 ELEVATOR CUT SHEET

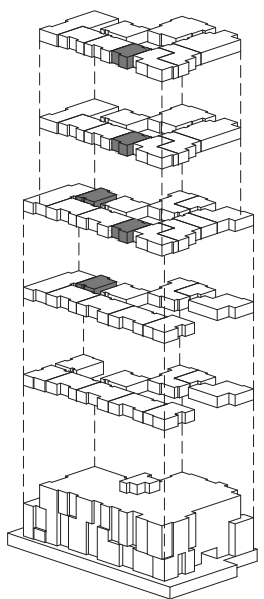
3361 Walnut Blvd, Suite 120 Brentwood, CA 94513  
 925.634.7000  
 www.strausdesign.com





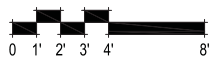


- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL



NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	782 SQ. FT.



**A16**  
**UNIT 1A FLOOR PLAN**

**ALTOS ONE**

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

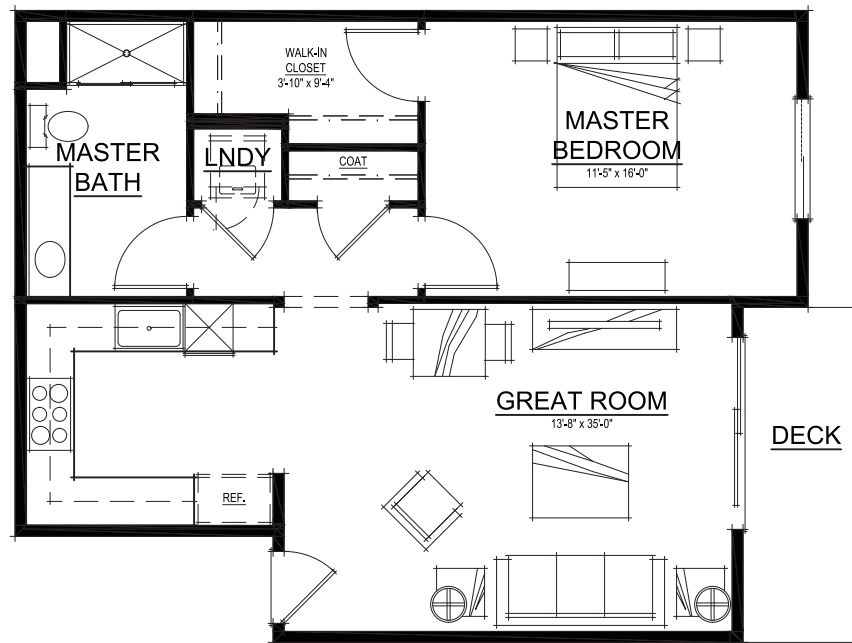
**LUXONE LLC**

572 Chimalus Dr.  
Palo Alto, CA 94306

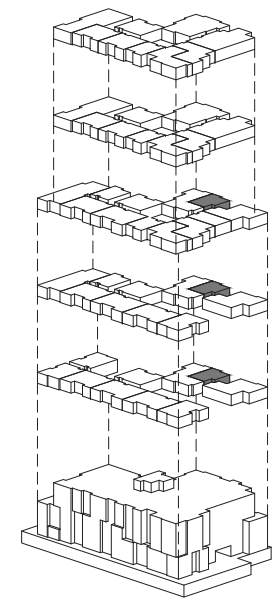
3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
925.634.7000  
www.strausdesign.com



SDG Architects, Inc.



- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

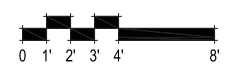


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	785 SQ. FT.

**ALTOS ONE**  
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Los Altos, CA  
July 18, 2018

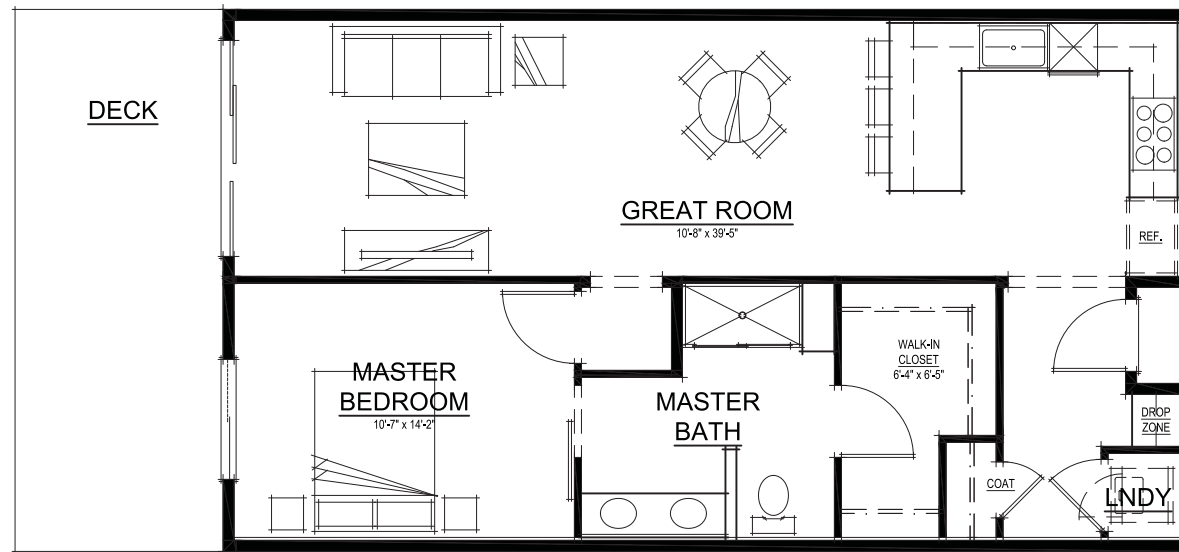
**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306



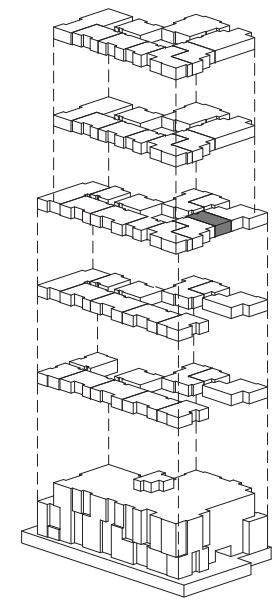
**A17**  
**UNIT 1B FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

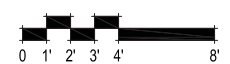


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	902 SQ. FT.

**ALTOS ONE**  
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July 18, 2018

**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306



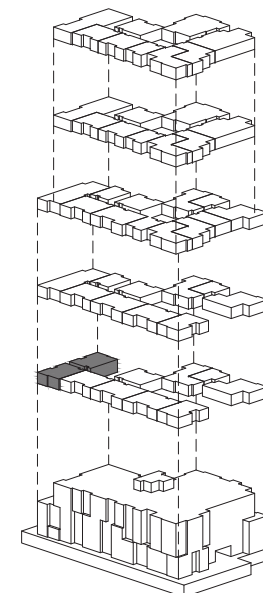
**A18**  
**UNIT 1C FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

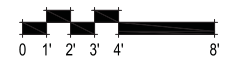


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1081 SQ. FT.

ALTOS ONE  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

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**A19**  
**UNIT 2A FLOOR PLAN**

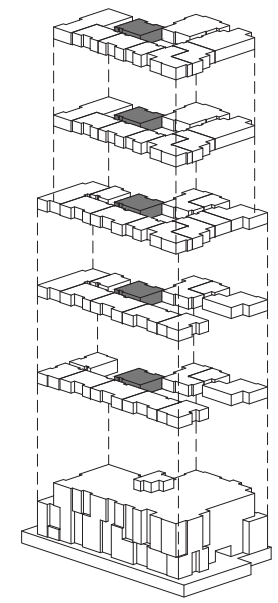
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SDG Architects, Inc.



- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

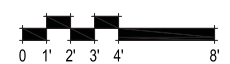


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1169 SQ. FT.

**ALTOS ONE**  
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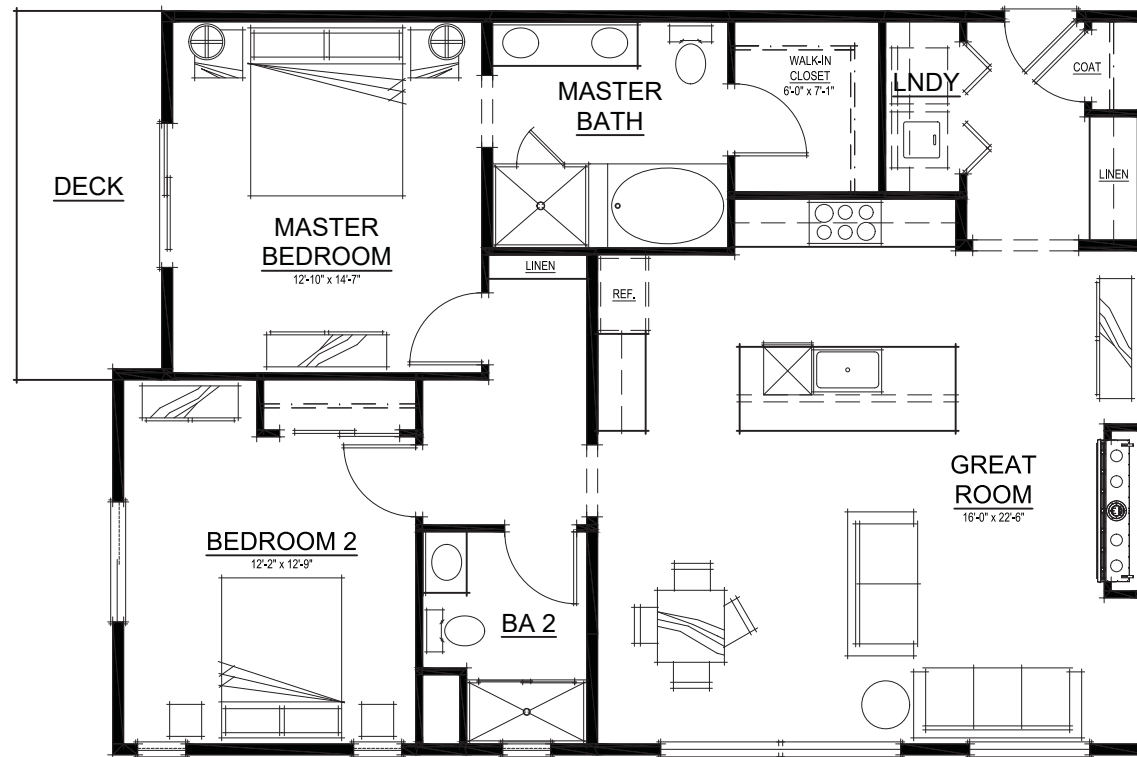


**A20**  
**UNIT 2B FLOOR PLAN**

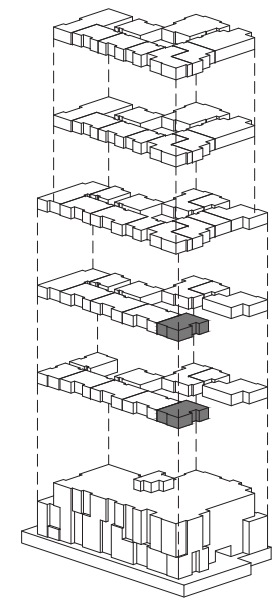
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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

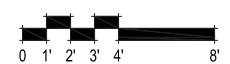


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1308 SQ. FT.

**ALTOS ONE**  
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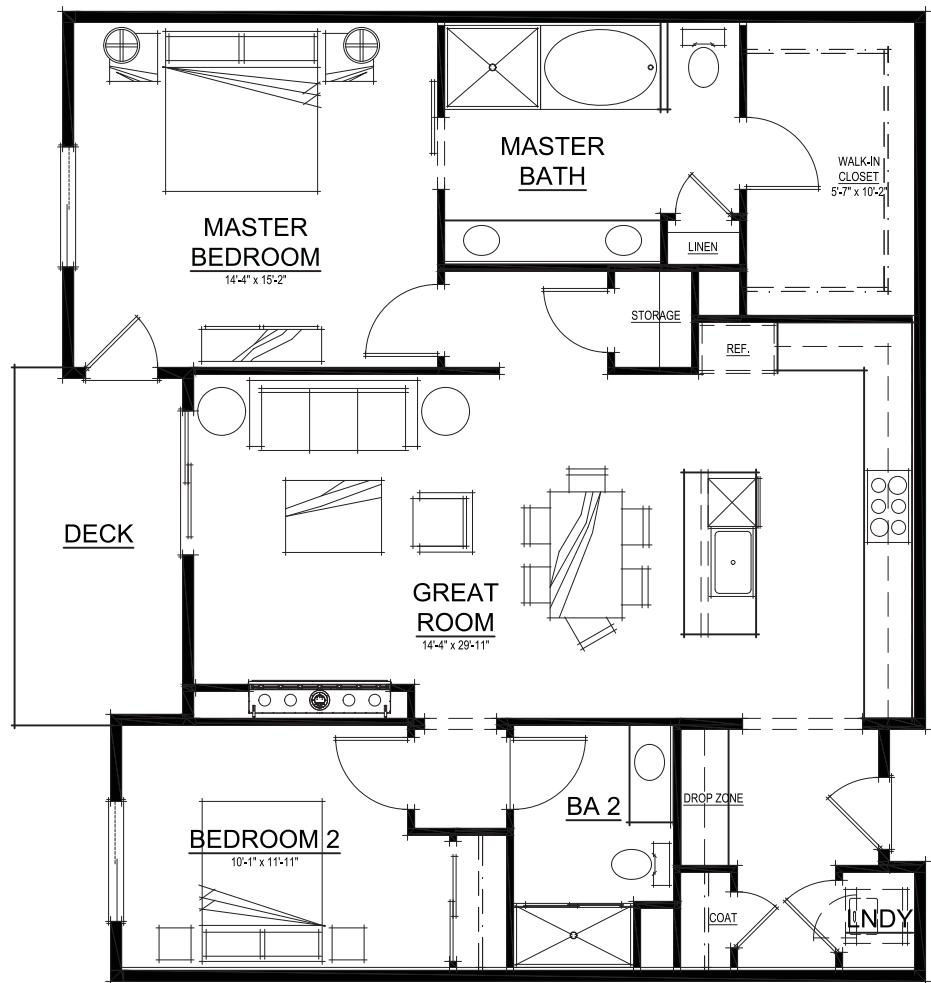
**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306



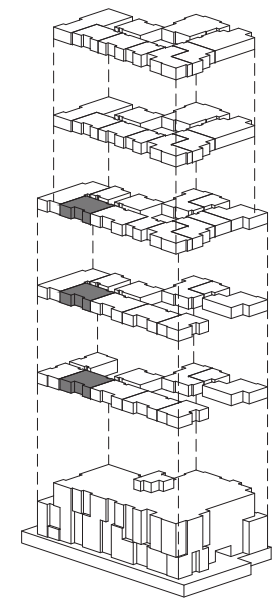
**A21**  
**UNIT 2C FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

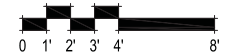


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1353 SQ. FT.

**ALTOS ONE**  
 4846 & 4856 El Camino Real  
 Los Altos, CA  
 July 18, 2018

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 572 Chimalus Dr.  
 Palo Alto, CA 94306



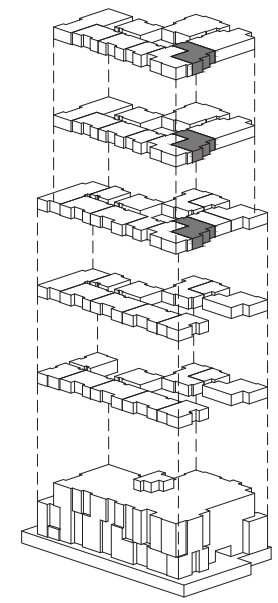
**A22**  
**UNIT 2D FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

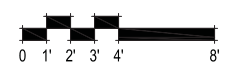


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1430 SQ. FT.

ALTOS ONE  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

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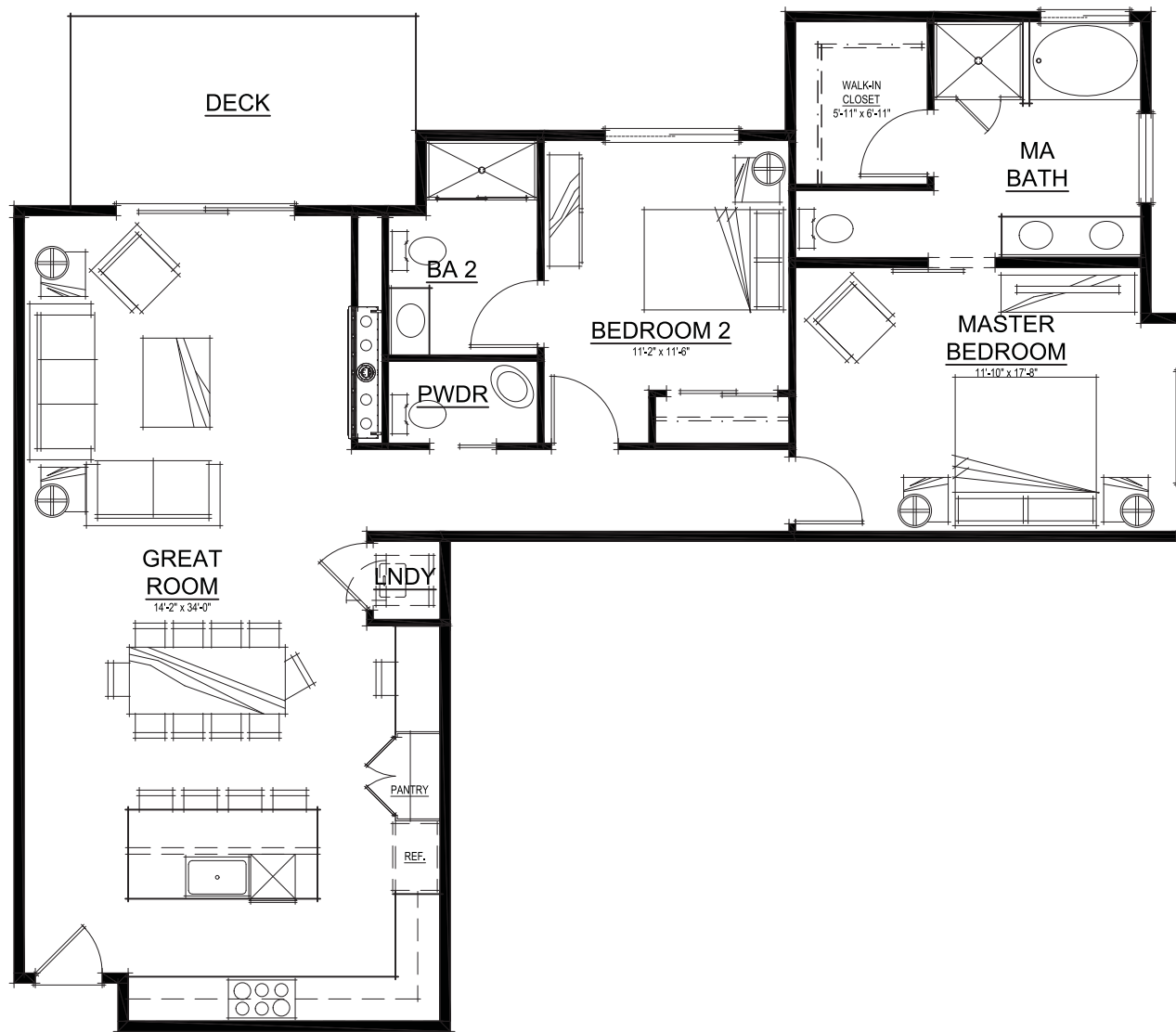


A23  
UNIT 2E FLOOR PLAN

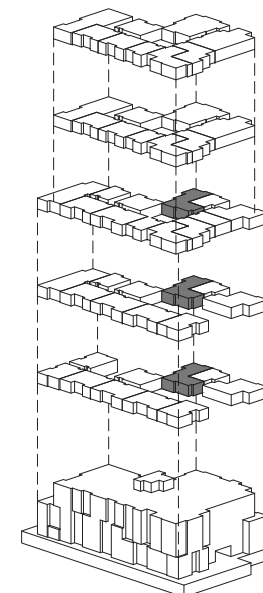
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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

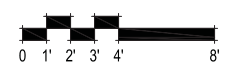


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1407 SQ. FT.

ALTOS ONE  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

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572 Chimalus Dr.  
Palo Alto, CA 94306



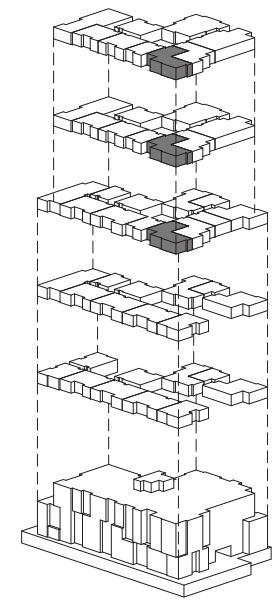
A24  
UNIT 2F FLOOR PLAN

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

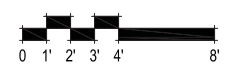


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1451 SQ. FT.

**ALTOS ONE**  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

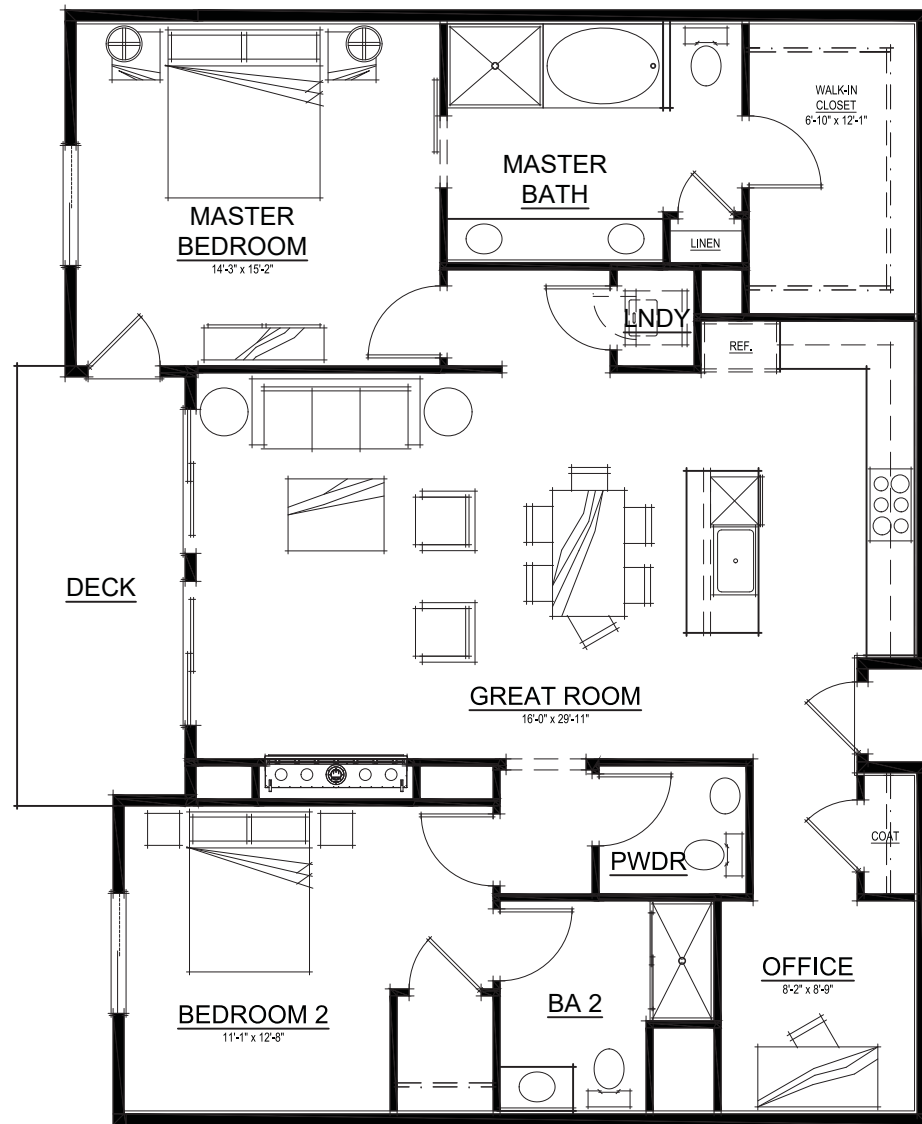
**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306



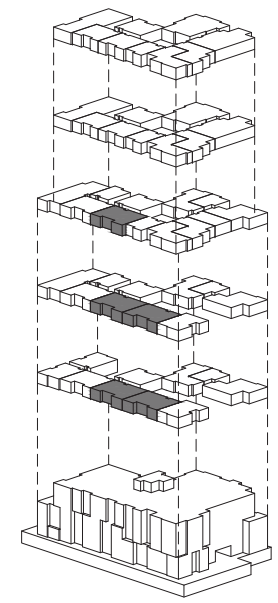
**A25**  
**UNIT 2G FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

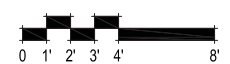


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1546 SQ. FT.

**ALTOS ONE**  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306



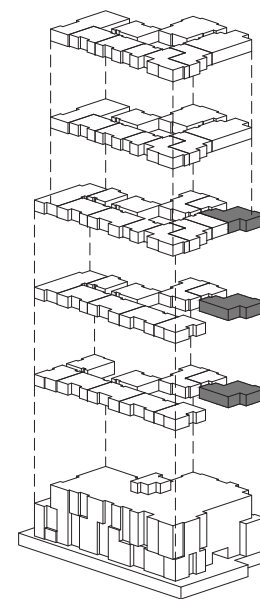
**A26**  
**UNIT 2H FLOOR PLAN**

3361 Walnut Blvd. Suite 120 Brentwood, CA 94513  
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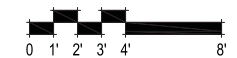


- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL



NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	1569 SQ. FT.



**A27**  
**UNIT 3A FLOOR PLAN**

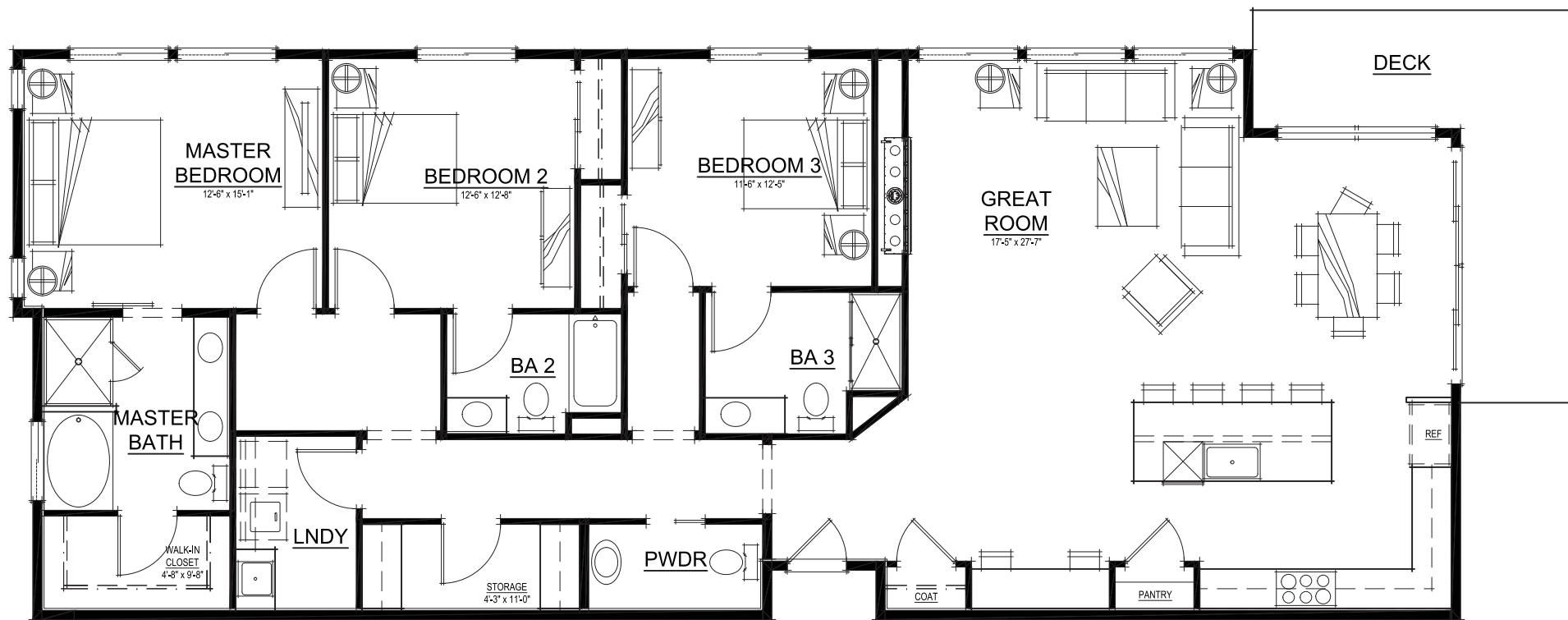
**ALTOS ONE**  
4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

**LUXONE LLC**  
572 Chimalus Dr.  
Palo Alto, CA 94306

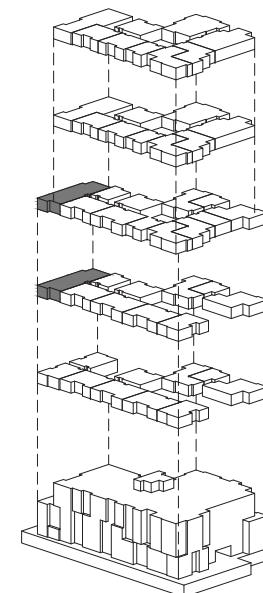
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SDG Architects, Inc.



- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

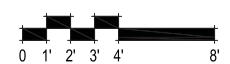


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	2053 SQ. FT.

ALTOS ONE  
4846 & 4856 El Camino Real  
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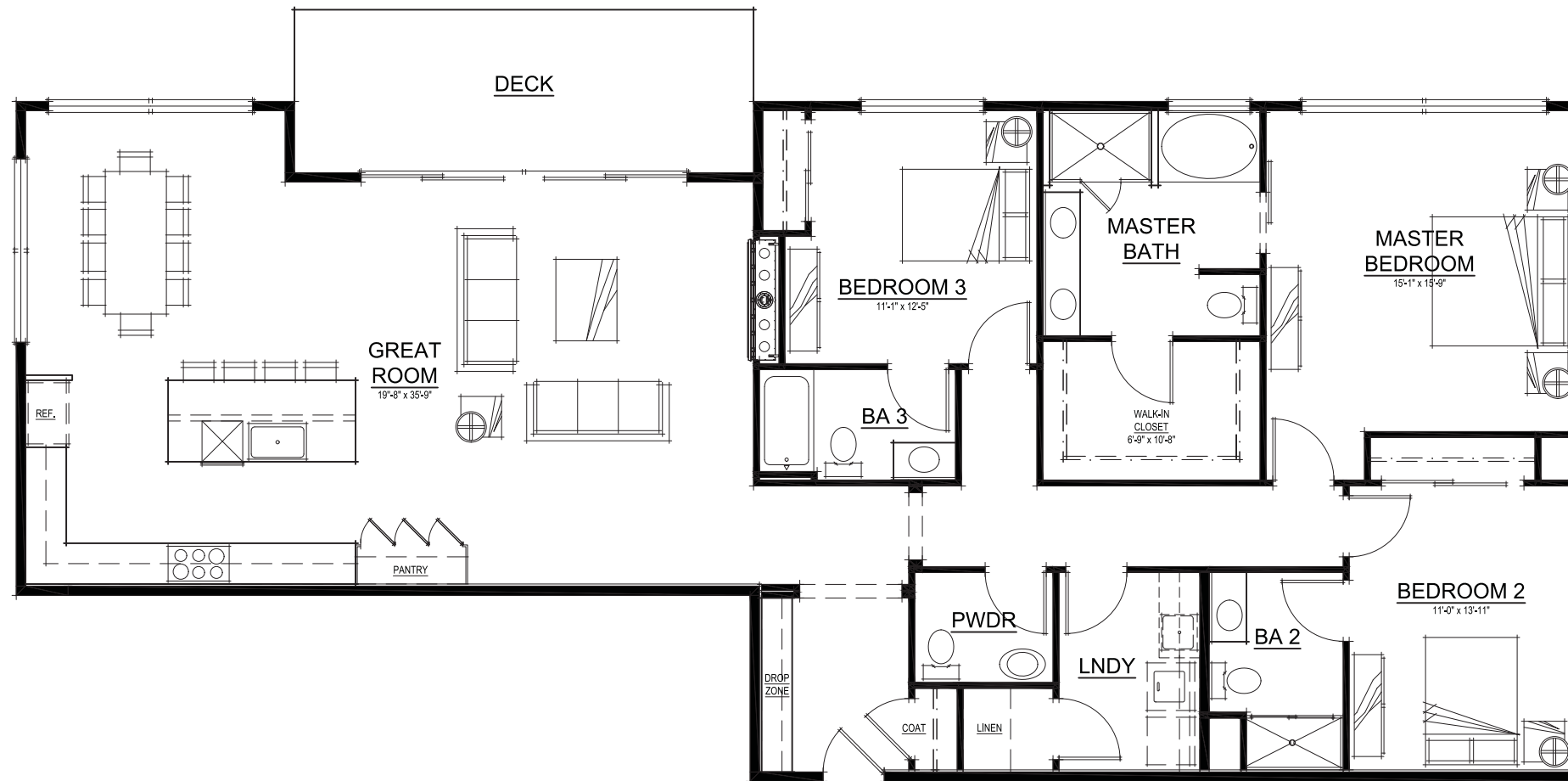
LUXONE LLC  
572 Chimalus Dr.  
Palo Alto, CA 94306



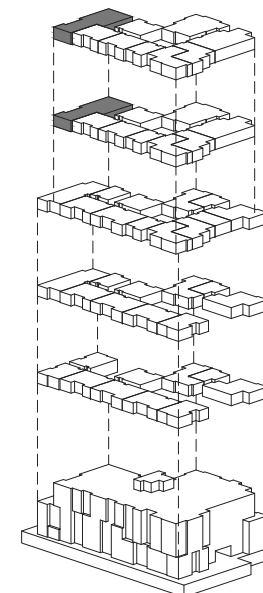
A28  
UNIT 3B FLOOR PLAN

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

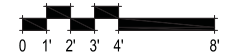


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	2159 SQ. FT.

**ALTOS ONE**  
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July 18, 2018

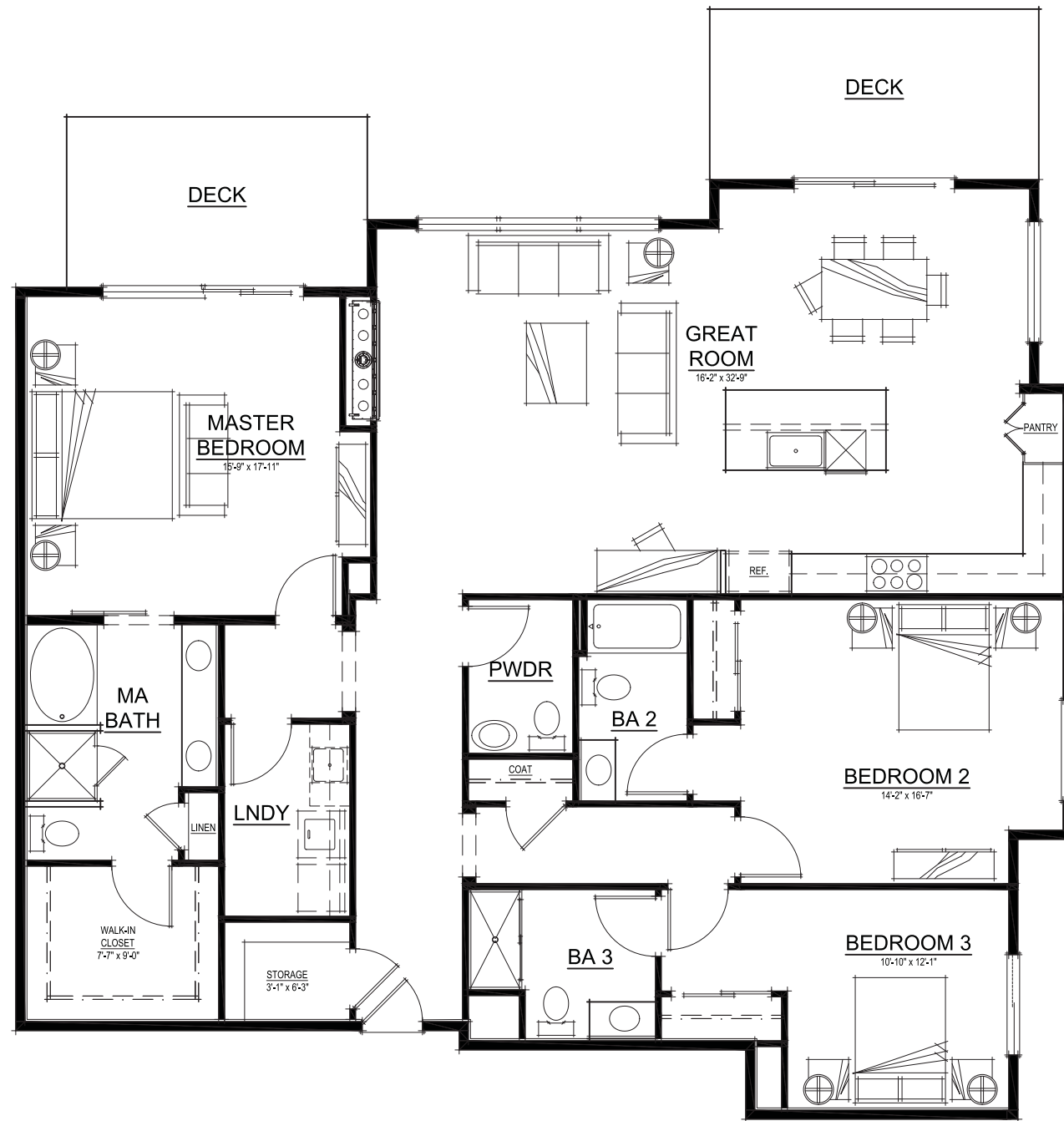
**LUXONE LLC**  
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Palo Alto, CA 94306



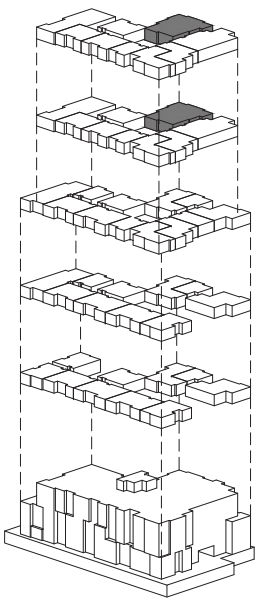
**A29**  
**UNIT 3C FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

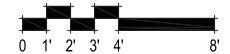


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	2140 SQ. FT.

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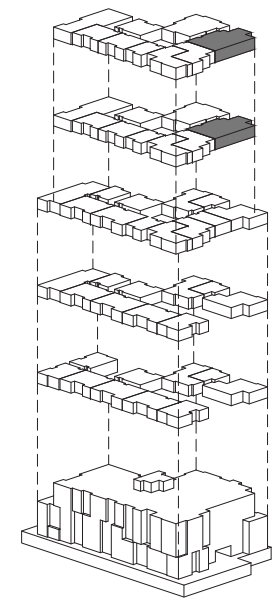
**A30**  
**UNIT 3D FLOOR PLAN**

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- 05 5<sup>TH</sup> FLOOR UNITS
- 04 4<sup>TH</sup> FLOOR UNITS
- 03 3<sup>RD</sup> FLOOR UNITS
- 02 2<sup>ND</sup> FLOOR UNITS
- 01 1<sup>ST</sup> FLOOR UNITS
- 00 BUILDING SHELL

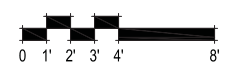


NOTE:  
FOR ACTUAL DECK, WINDOW, AND EXTERIOR  
DOOR LOCATIONS SEE BUILDING PLANS

SQUARE FOOTAGES	
LIVING	2302 SQ. FT.

**ALTOS ONE**  
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Los Altos, CA  
July 18, 2018

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**A31**  
**UNIT 3E FLOOR PLAN**

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VIEW FROM EL CAMINO REAL

ALTOS ONE

4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

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A32  
BUILDING PERSPECTIVE

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VIEW FROM CORNER OF EL CAMINO REAL / SHOWERS DRIVE

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4846 & 4856 El Camino Real  
Los Altos, CA  
July 18, 2018

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A33  
BUILDING PERSPECTIVE

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VIEW FROM CORNER OF EL CAMINO REAL / SHOWERS DRIVE

ALTOS ONE

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Los Altos, CA  
July 18, 2018

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A34  
BUILDING PERSPECTIVE

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PEDESTRIAN VIEW FROM EL CAMINO REAL



PEDESTRIAN VIEW FROM SEE'S CANDY



VIEW FROM 2ND STORY WINDOW OF APARTMENTS TO THE REAR w/o SCREEN TREES



ROOF DECK

ALTOS ONE

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 Los Altos, CA  
 July 18, 2018

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A35  
 VIGNETTE PERSPECTIVES

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SOUTH PERSPECTIVE



NORTH PERSPECTIVE



WEST PERSPECTIVE



EAST PERSPECTIVE

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 July 18, 2018

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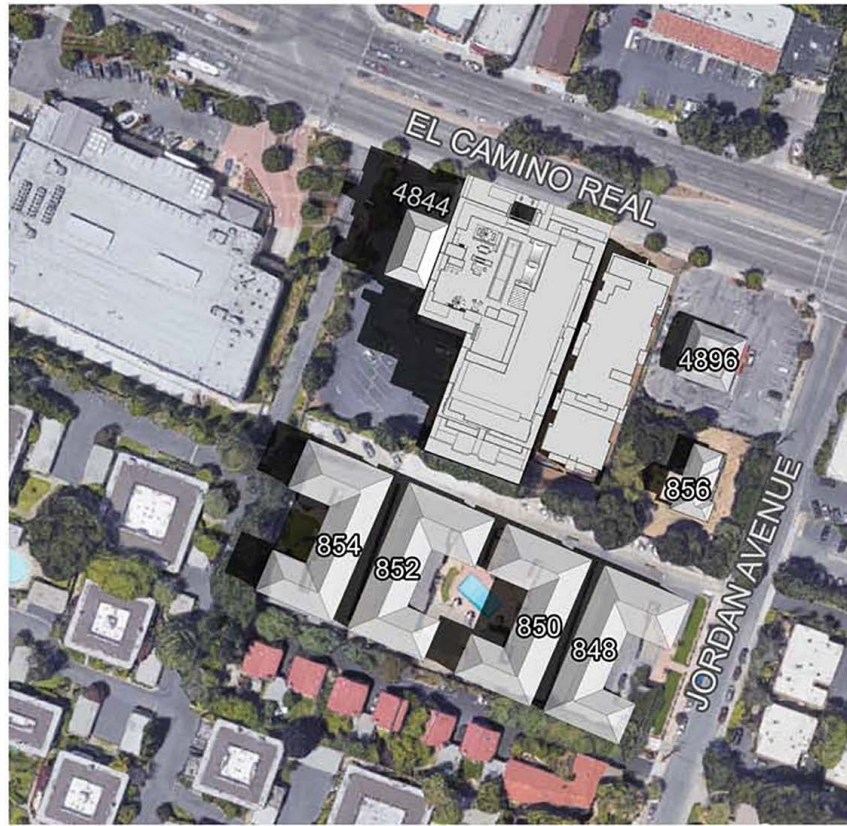
572 Chimalus Dr.  
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A36  
 BUILDING PERSPECTIVES

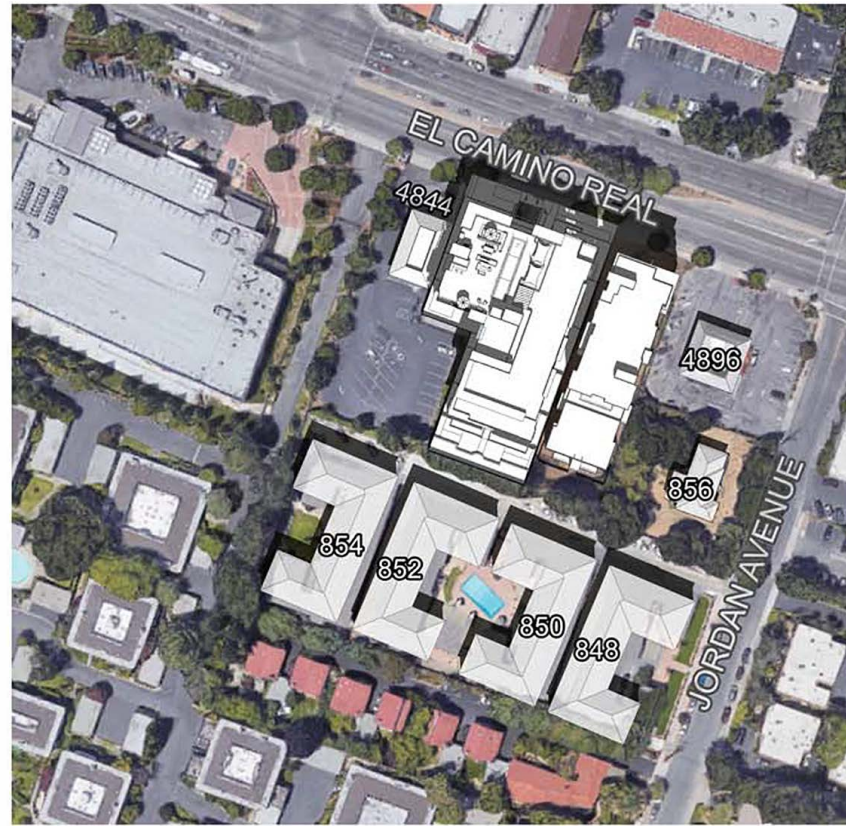
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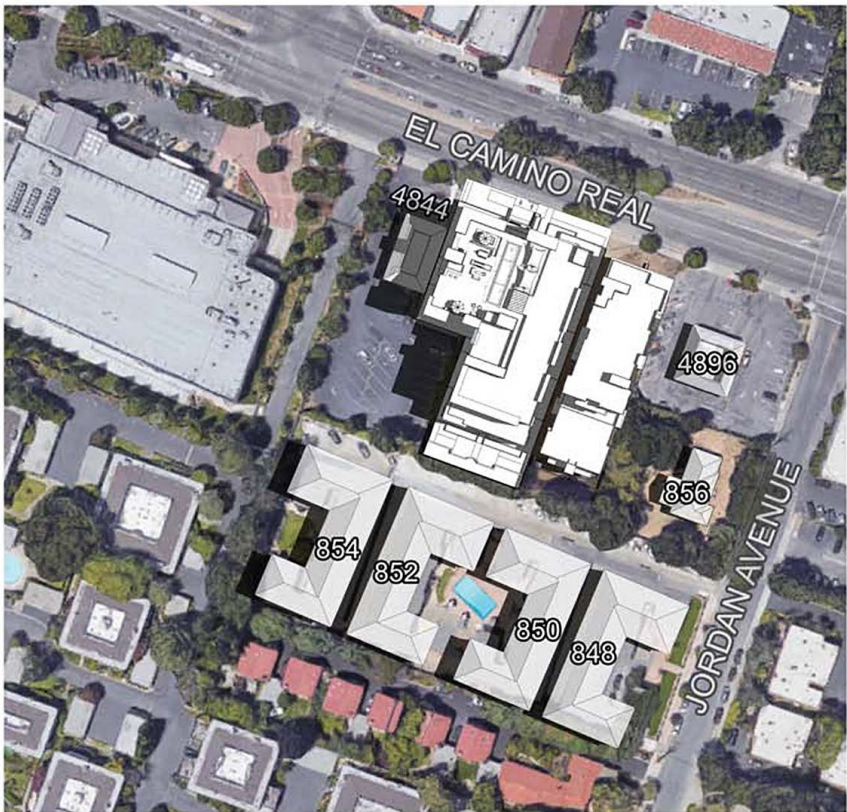
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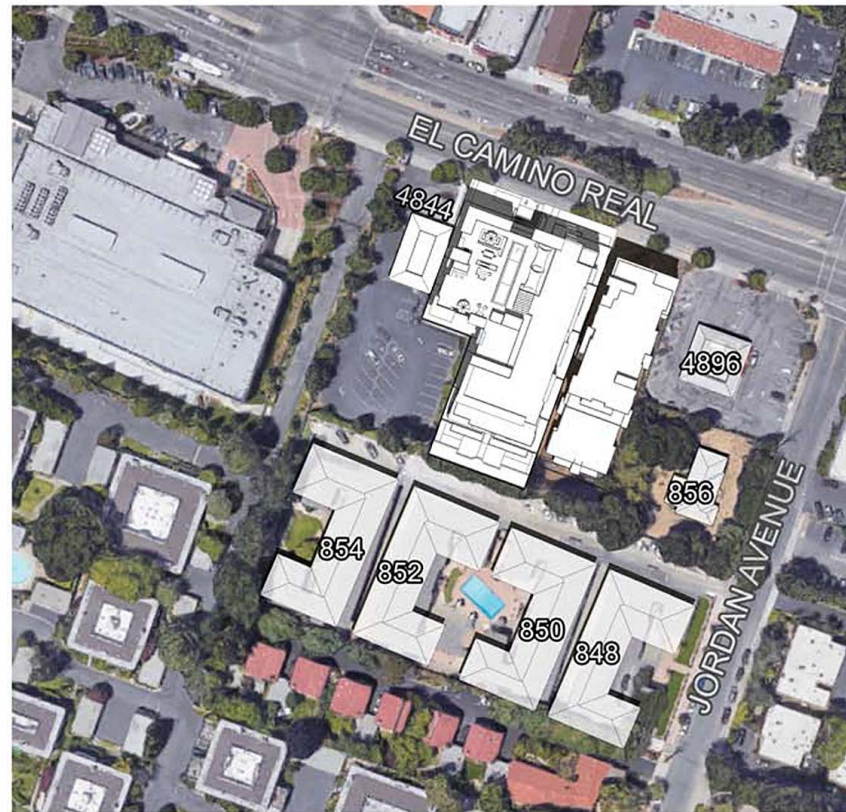
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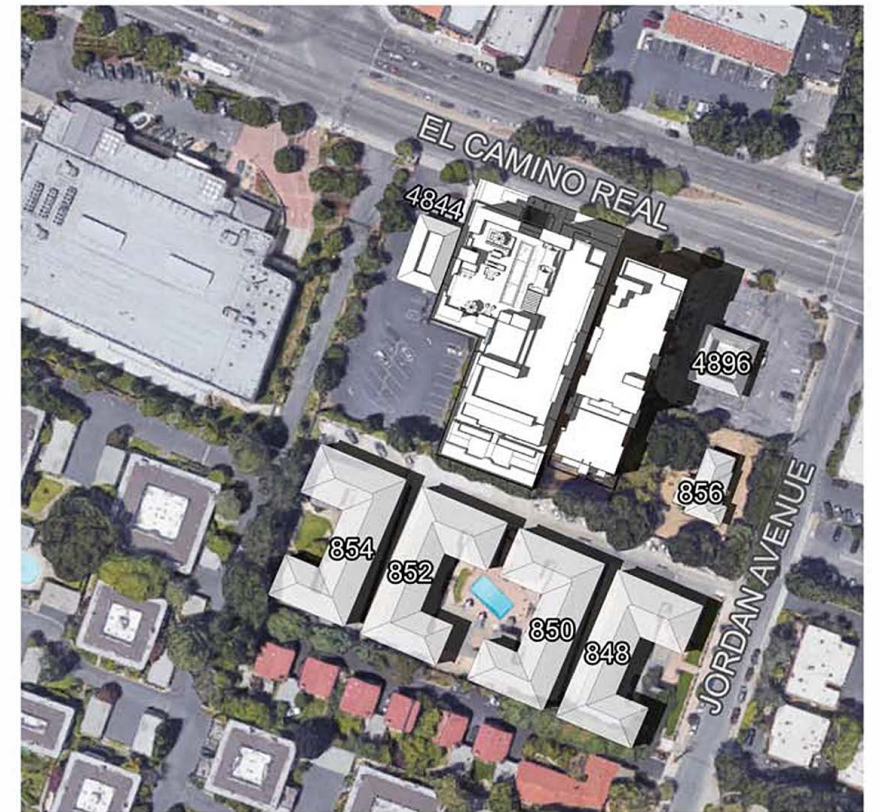
MARCH 20TH - 3:00 PM



JUNE 21ST - 9:00 AM



JUNE 21ST - 12:00 PM



JUNE 21ST - 3:00 PM

ALTOS ONE  
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July 18, 2018

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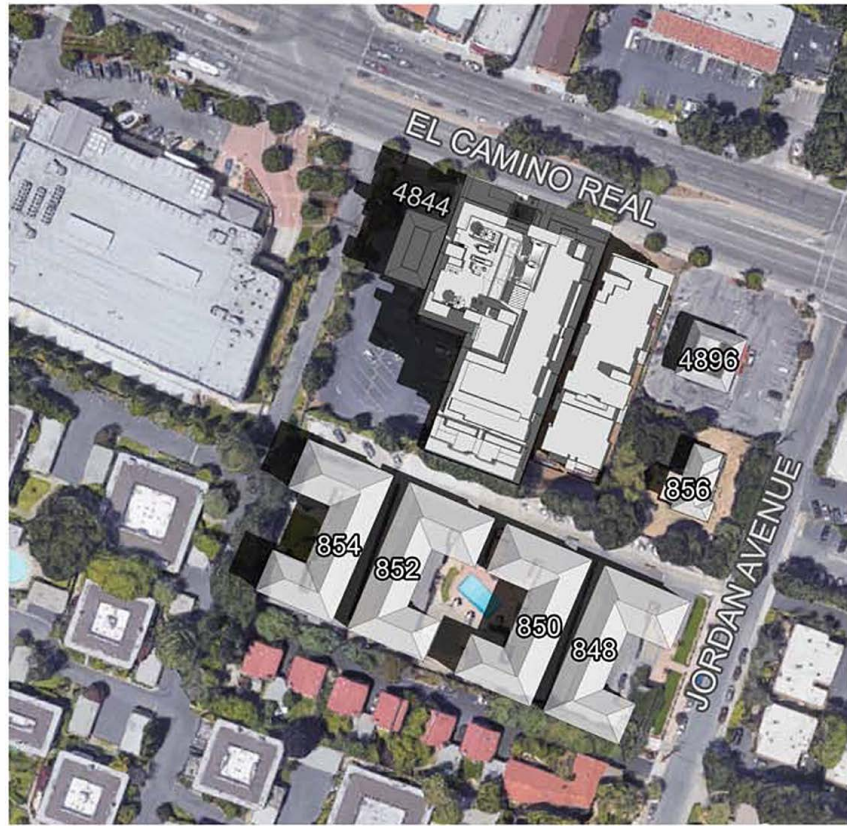
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A37  
SHADOW STUDY

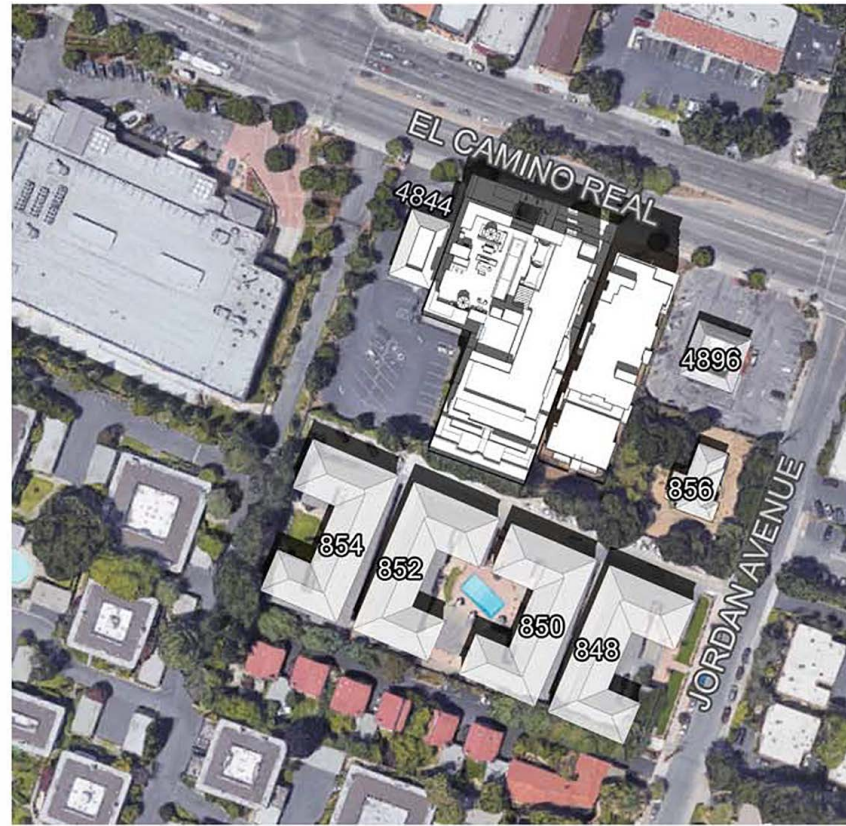
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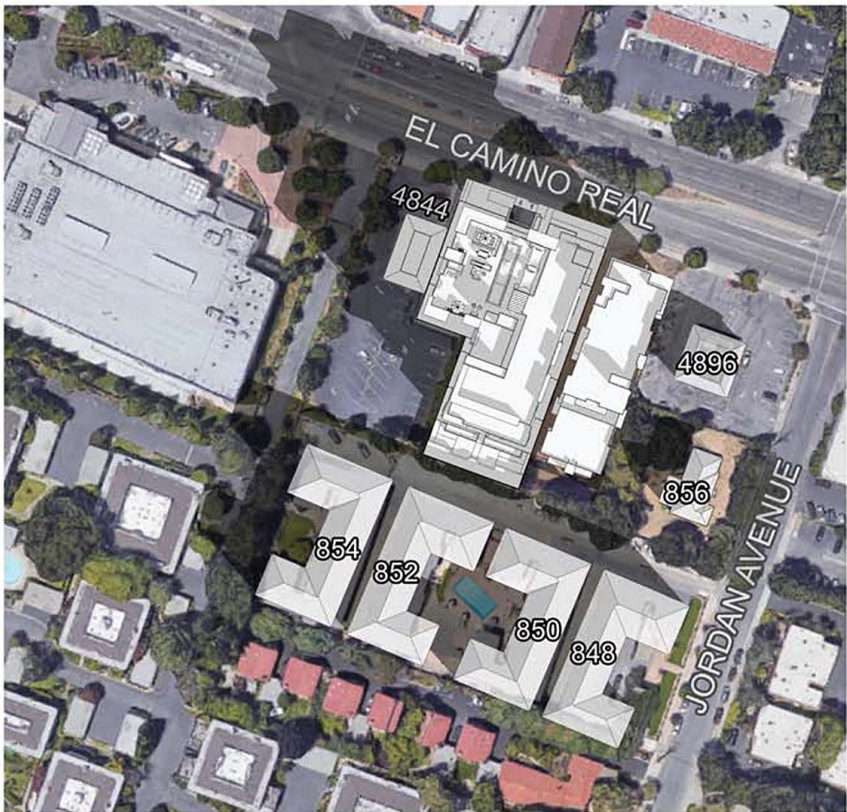
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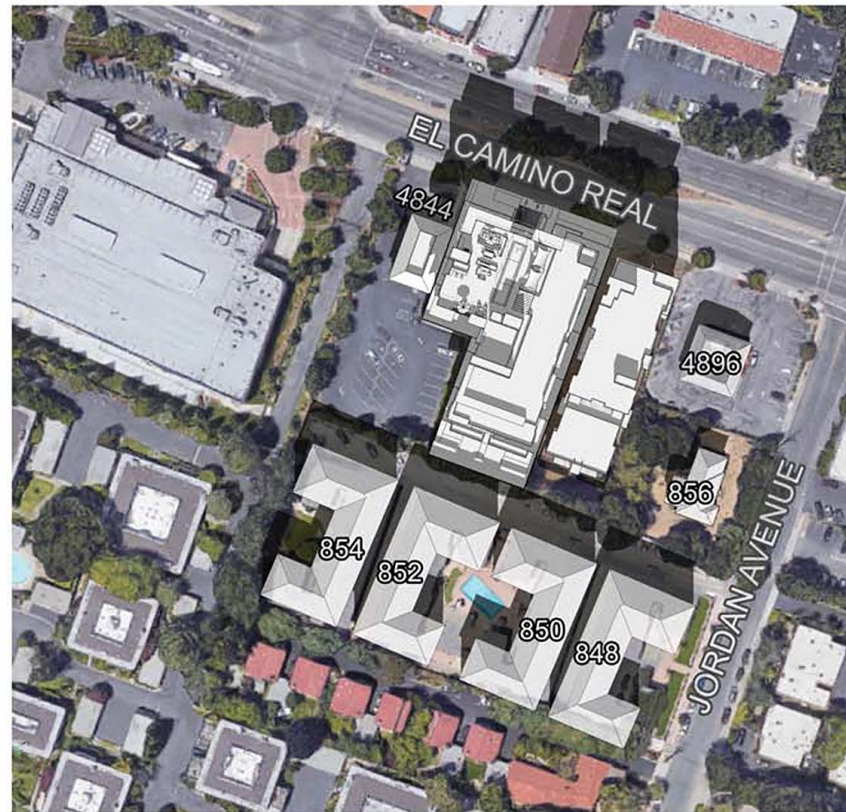
SEPTEMBER 23RD - 12:00 PM



SEPTEMBER 23RD - 3:00 PM



DECEMBER 21ST - 9:00 AM



DECEMBER 21ST - 12:00 PM



DECEMBER 21ST - 3:00 PM

ALTOS ONE  
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Los Altos, CA  
July 18, 2018

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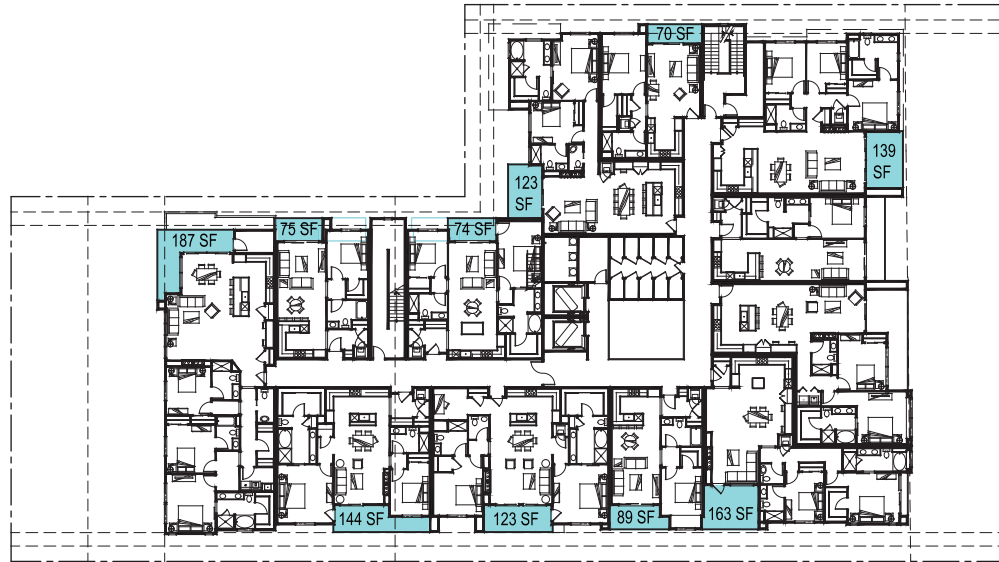
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A38  
SHADOW STUDY

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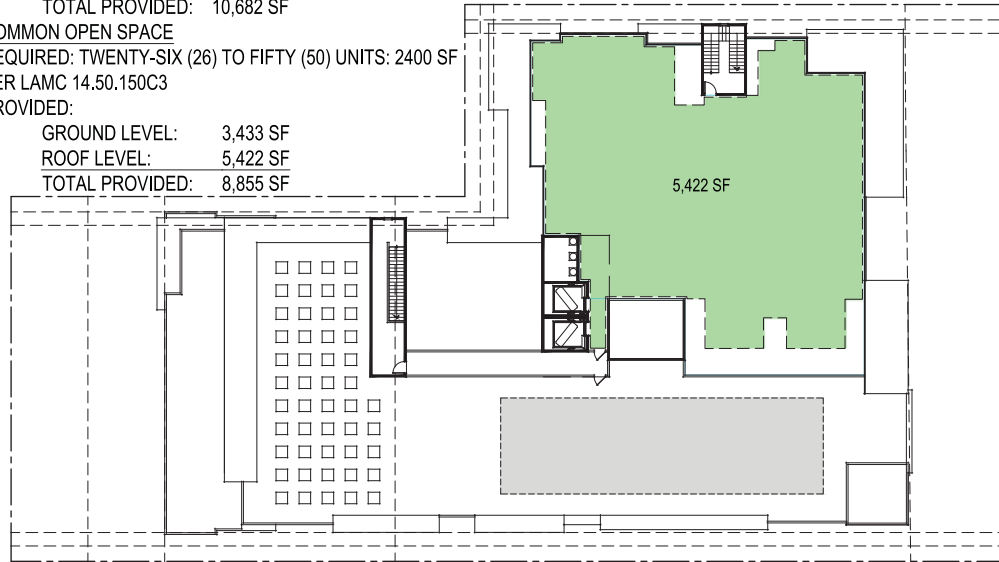
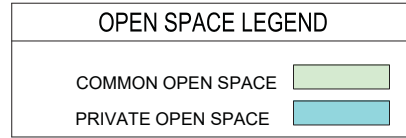
**THIRD FLOOR**

**OPEN SPACE**

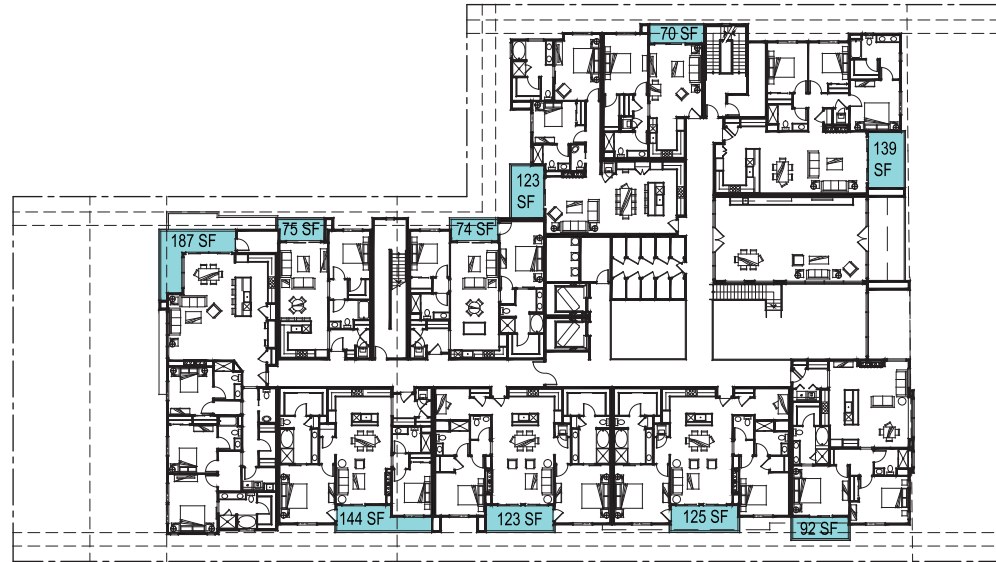
PRIVATE OPEN SPACE  
 REQUIRED: 50 SF AVERAGE / UNIT X 50 UNITS = 2500 SF  
 PER LAMC 14.50.150A

PROVIDED:  
 FIRST FLOOR: 4,965 SF  
 SECOND FLOOR: 1,152 SF  
 THIRD FLOOR: 1,187 SF  
 FOURTH FLOOR: 1,689 SF  
 FIFTH FLOOR: 1,689 SF  
 TOTAL PROVIDED: 10,682 SF

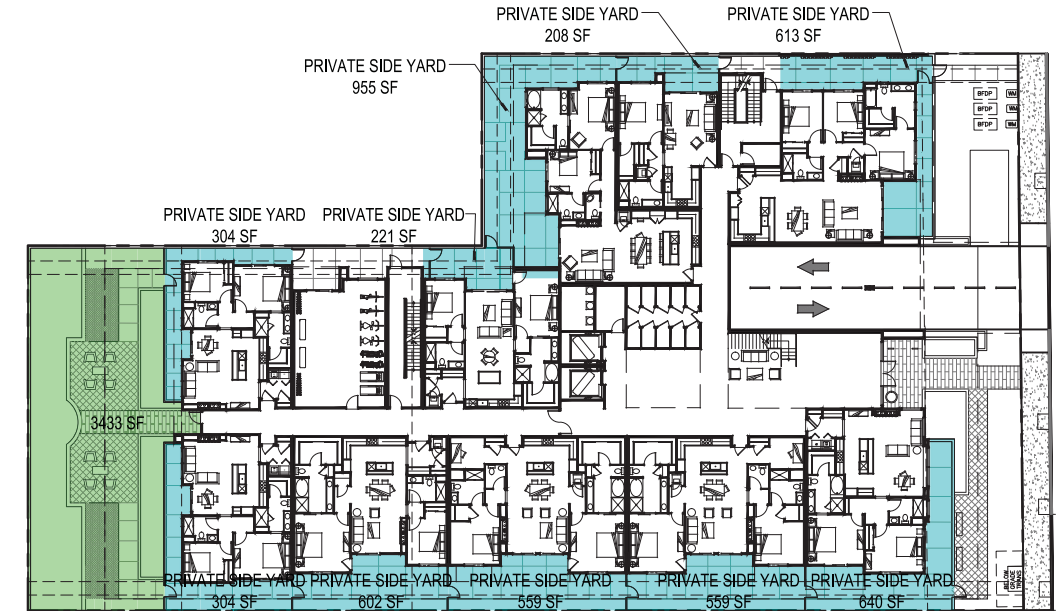
COMMON OPEN SPACE  
 REQUIRED: TWENTY-SIX (26) TO FIFTY (50) UNITS: 2400 SF  
 PER LAMC 14.50.150C3  
 PROVIDED:  
 GROUND LEVEL: 3,433 SF  
 ROOF LEVEL: 5,422 SF  
 TOTAL PROVIDED: 8,855 SF



**ROOF**



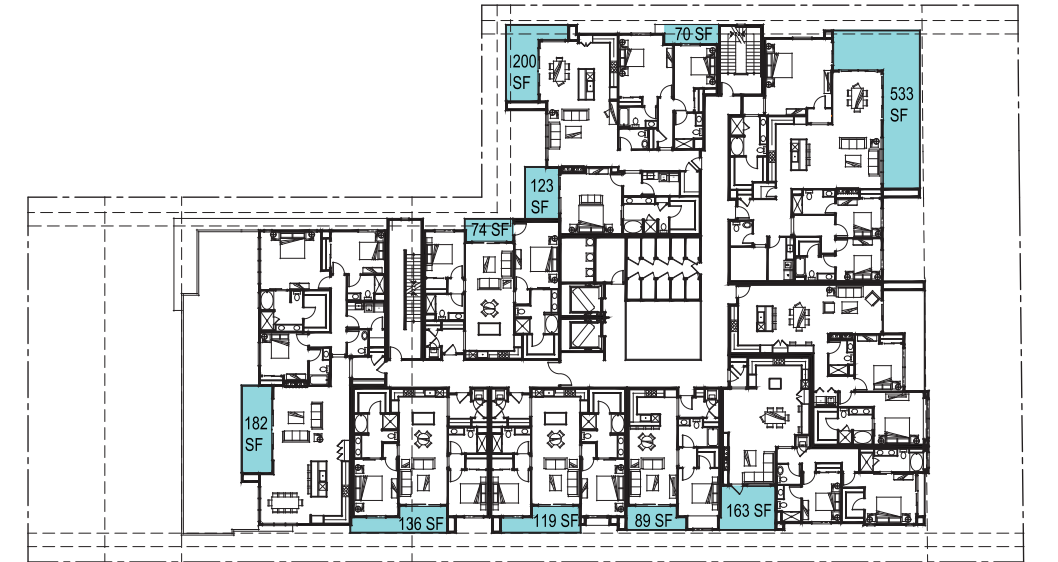
**SECOND FLOOR**



**FIRST FLOOR**



**FIFTH FLOOR**



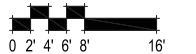
**FOURTH FLOOR**

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 July 18, 2018

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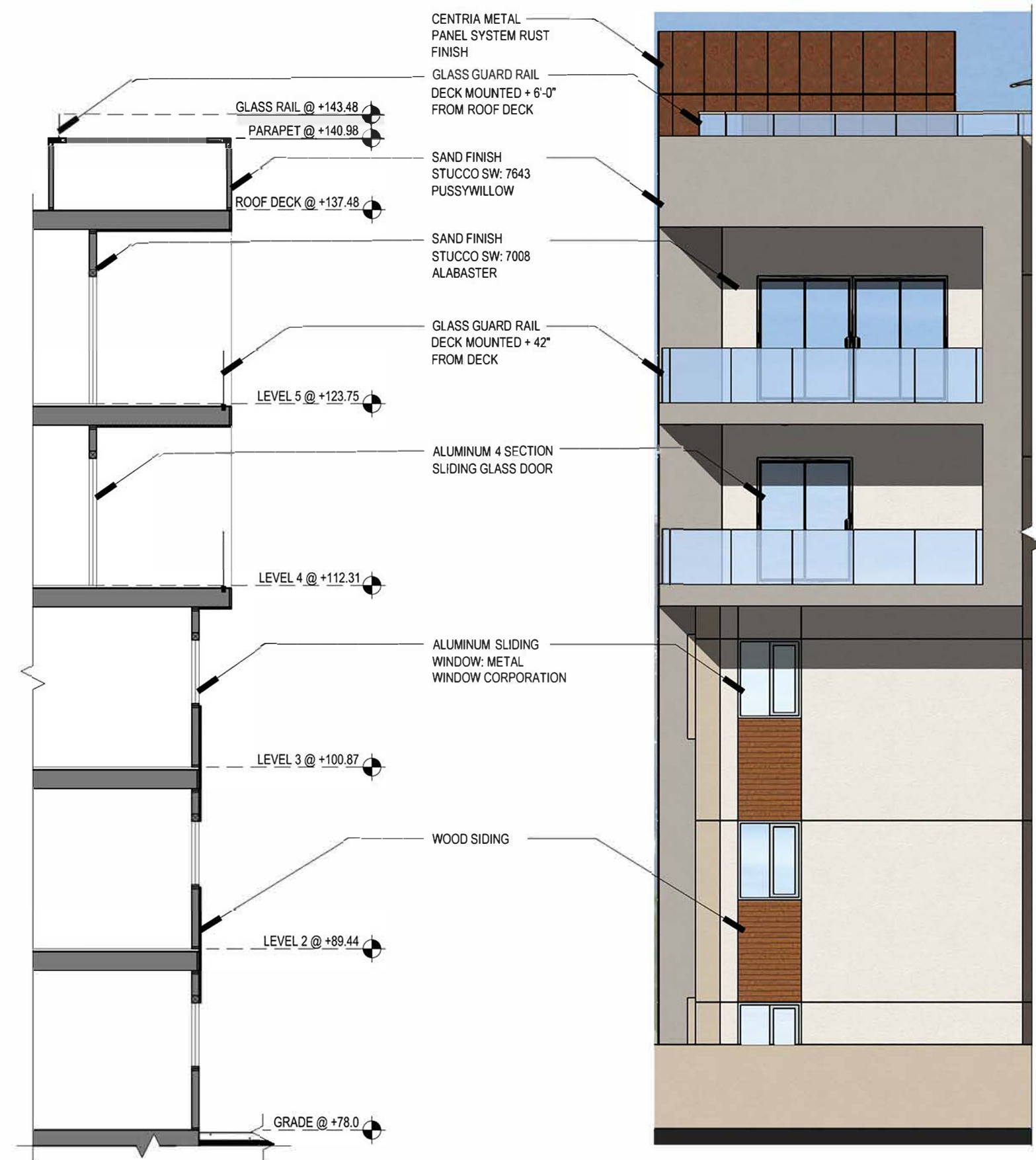
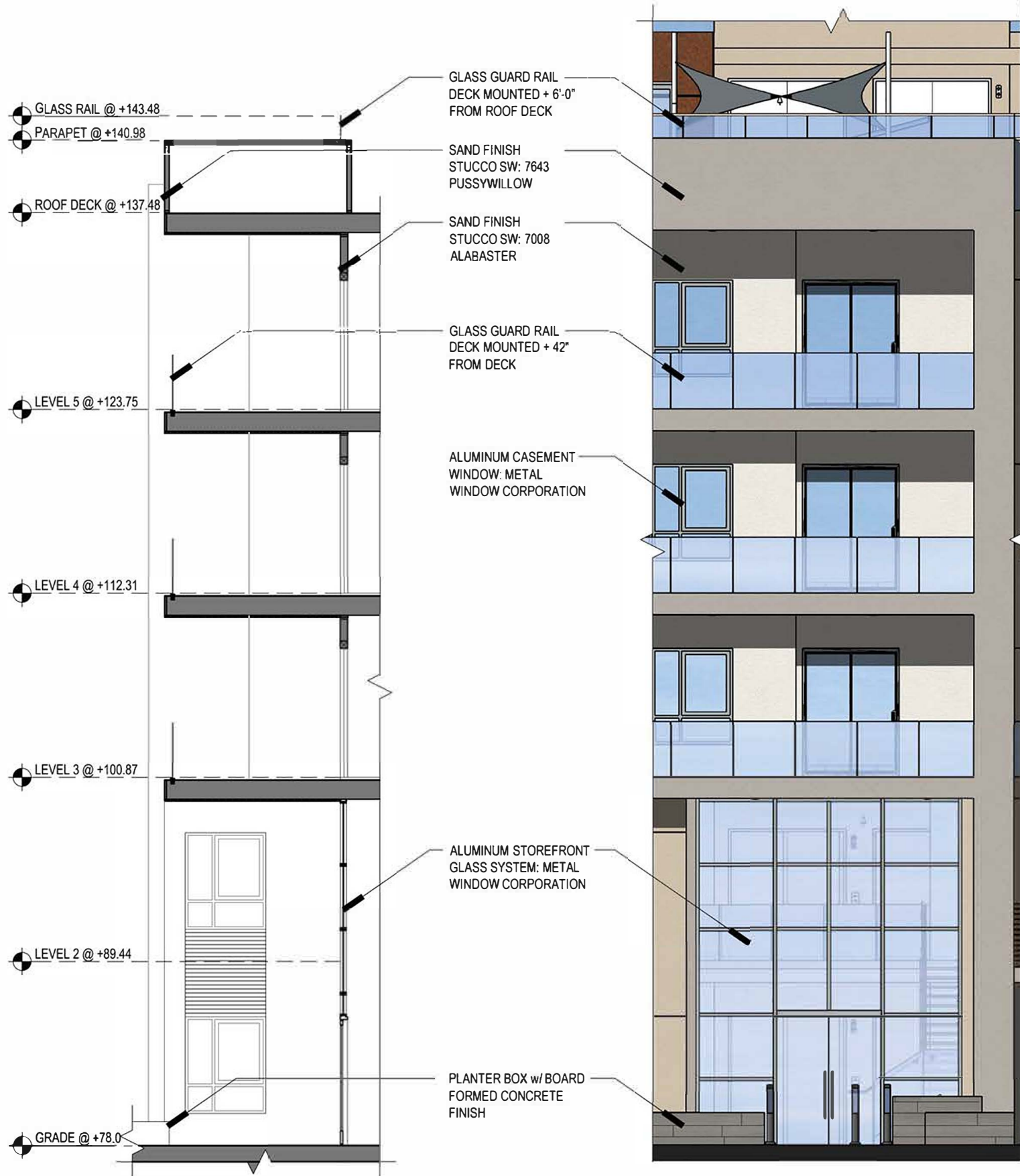
**A39  
 OPEN SPACE**

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**ALTOS ONE**

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**A40  
WALL SECTIONS & DETAILS**

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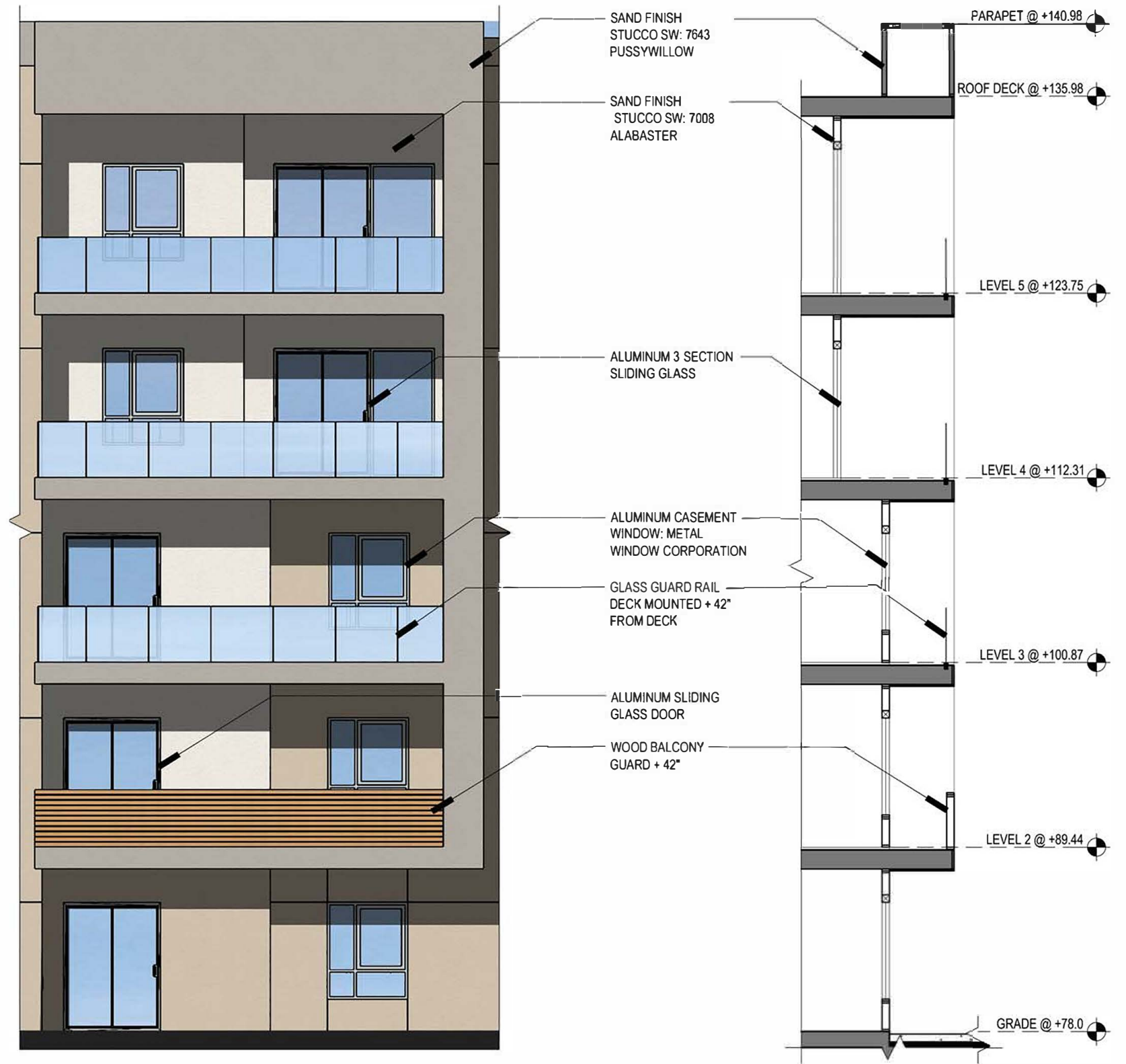


**A41  
 WALL SECTIONS & DETAILS**

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**A42**  
**WALL SECTIONS & DETAILS**

**ALTOS ONE**  
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NOTE: PLANTING CALLOUTS, REFER TO SHEET L-2 FOR PLANT LEGEND

TOTAL SITE AREA: (EXCLUDES BLDG., PODIUM DECK & DRIVEWAY)	12,728 SF
TOTAL HARDSCAPE:	5,825 SF
TOTAL SOFTSCAPE PLANTING: (INCLUDES SYNTH. TURF AREA)	6,903 SF
% LANDSCAPE	54.2%
FRONT SETBACK - TOTAL AREA	3,751 SF
FRONT SETBACK - TOTAL LANDSCAPE	1,887 SF
FRONT SETBACK - TOTAL HARDSCAPE	1,864 SF
FRONT SETBACK - % LANDSCAPE	50.3%



**PROGRAM AMENITY LEGEND**

- 1 LARGE FORMAT PAVERS, TYPICAL
- 2 3' +/- RETAINING WALL TO REPLACE EXISTING WALL PRESERVE GRADES AROUND REDWOODS
- 3 EXISTING CMU PROPERTY WALL TO REMAIN. TREES SPACED TO WORK WITH EXISTING TREES ON ADJACENT PROPERTY
- 4 PLANTING AREA AT STREET FRONTAGE

- 5 36" HT. RAISED PLANTER WALL, TYPICAL
- 6 SEMI-PRIVATE PATIO: WOOD DECK PAVING WITH BENCH SEATING
- 7 4' HT. CONCRETE PRIVACY WALL WITH BOARD FORM FINISH AND 4' HT WOOD FIRE ACCESS GATE
- 8 PUBLIC SIDEWALK, S.C.D.
- 9 RAMP TO PARKING GARAGE, S.C.D.

- 10 COLORED CONCRETE PAVING, TYPICAL
- 11 EXISTING TREE TO BE REMOVED, TYPICAL
- 12 LOADING PARKING STALL, S.C.D.
- 13 6' HT. WOOD PRIVACY FENCE AND FIRE ACCESS GATE W/ KNOX BOX, TYPICAL
- 14 SIDE PROPERTY LINE SCREEN PLANTING, TYPICAL

- 15 PASSIVE LOUNGE AREA: LOUNGE SEATING NICHES W/ WOOD DECK PAVING AND FEATURE RETAINING WALL AROUND EXISTING REDWOODS
- 17 EXISTING REDWOOD TREES TO REMAIN, TYPICAL
- 18 PROPERTY LINE, TYPICAL
- 19 20'-0" URBAN FOREST SETBACK

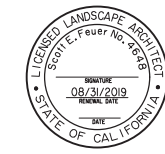
- 20 PROPOSED NEW STREET TREE LOCATION, TYPICAL OF (4)
- 21 CURBSIDE TRASH PICK-UP AT DESIGNATED RED CURB ZONE
- 22 SHADE TOLERANT UNDERSTORY PLANTING BENEATH EXISTING REDWOOD TREES
- 23 BUILDING UTILITY VAULTS/ BOXES, S.C.D.
- 24 SYNTHETIC LAWN, TYP.
- 25 PODIUM PARKING DECK BELOW SHOWN DASHED

- 26 NEW 6' HEIGHT CMU WALL, TYPICAL
- 27 BIKE PARKING, (4) BIKES TOTAL
- 28 GAS METERS, TYP.
- 29 UNDERGROUND TRANSFORMER, SEE CIVIL DRAWINGS.
- 30 6' HT. CONCRETE PRIVACY WALL WITH BOARD FORM FINISH AND 6' HT WOOD FIRE ACCESS GATE

**GROUND FLOOR PRELIMINARY LANDSCAPE PLAN**

NOT FOR CONSTRUCTION  
APPLICATION NOS. 18-D-01, 18-UP-01, and 18-SD-01

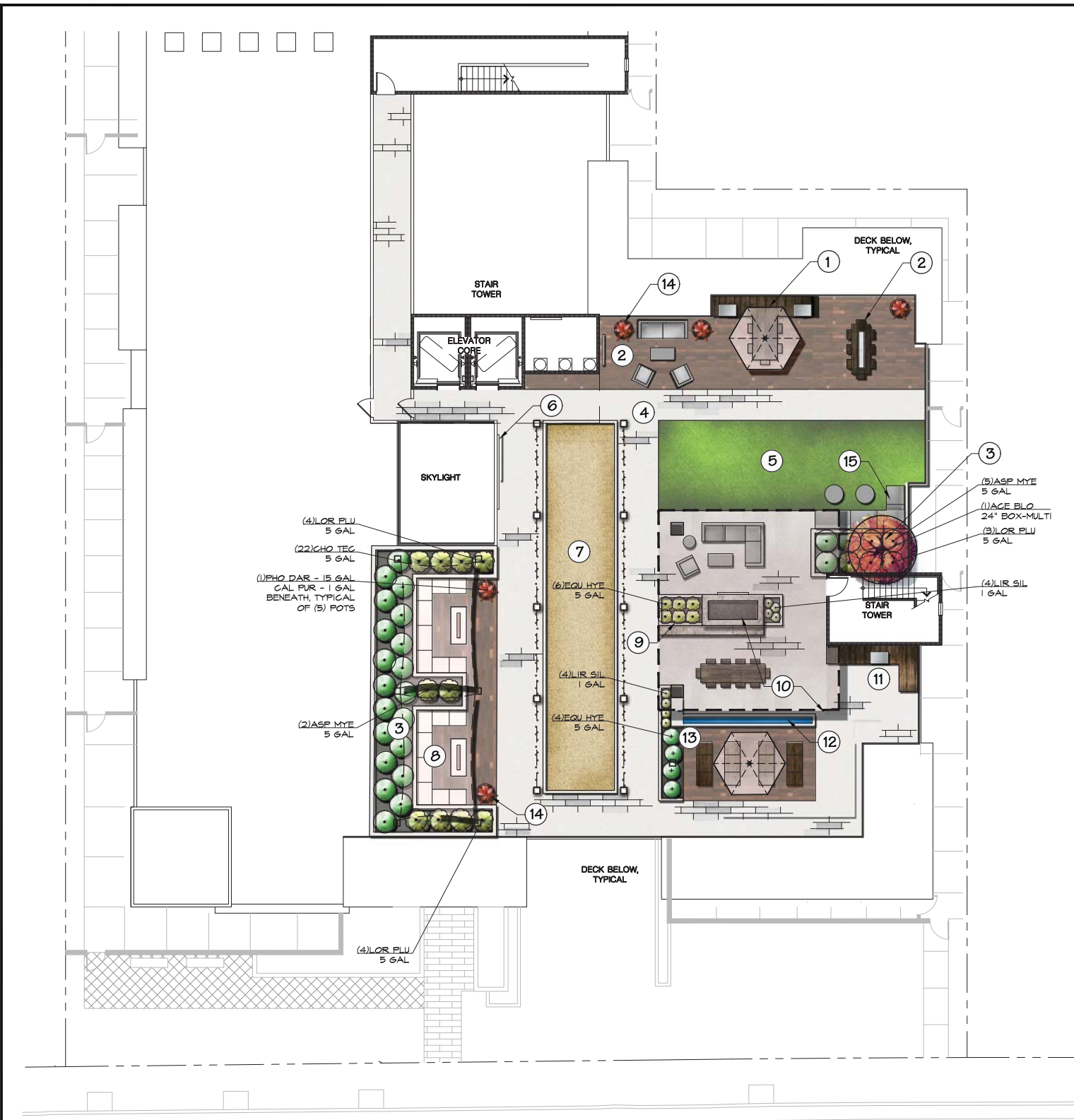
**ALTOS ONE**  
4856 & 4846 EL CAMINO REAL  
LOS ALTOS, CALIFORNIA 94022



0 5 10 20 FT.  
DATE: 07/16/18  
JOB# 16017.01



**ENVIRONMENTAL FORESIGHT, INC.**  
Landscape Architecture  
1700 N. Broadway, Suite 401  
Walnut Creek, CA 94596  
T (925) 945-0300 F (925) 945-6688  
www.environmentalforesight.com



**PROGRAM AMENITY LEGEND**

- ① OUTDOOR KITCHEN: BBQ GRILLS & BUILT-IN BAR SEATING WITH UMBRELLA ABOVE
- ② ENTERTAINMENT NOOK: COUNTER HEIGHT TABLE SEATING WITH DROP-IN ICE CHEST AT CENTER. OUTDOOR TV FEATURE WALL, LOUNGE SEATING & WOOD PAVING. TYPICAL OF (2)
- ③ RAISED PLANTER WITH ACCENT TREES, & PLANTING
- ④ LARGE FORMAT PAVERS, TYPICAL
- ⑤ OUTDOOR SYNTHETIC TURF AREA, PICNIC VIEWING FOR OUTDOOR MOVIES
- ⑥ OUTDOOR MOVIE SCREEN
- ⑦ 12' X 60' BOCCO COURT WITH CONTEMPORARY FESTOON LIGHTS OVERHEAD
- ⑧ OUTDOOR LOUNGE AREA WITH SHADE SAIL ABOVE & RAISED PLANTER BEHIND BUILT-IN WOOD BENCH SEATING WITH FIREPIT AT CENTER. TYPICAL OF (2)
- ⑨ RAISED CORTEN STEEL PLANTER
- ⑩ CABANA: DOUBLE SIDED FIREPLACE WITH FARM TABLE DINING ONE SIDE, LOUNGE SEATING OTHER SIDE, APPROXIMATELY 28' X 32'
- ⑪ OUTDOOR KITCHEN
- ⑫ 42" HEIGHT TROUGH WATER FOUNTAIN
- ⑬ SUN DECK: RAISED 12" DECK WITH LOUNGE CHAIRS FOR SUN BATHING
- ⑭ DECORATIVE POTTERY, TYPICAL
- ⑮ BUILT-IN BENCH FEATURE WITH COFFEE TABLES

**PLANT MATERIAL KEY**

KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WUCOLS (1)
<b>TREES</b>					
ACE BLO*	Acer p. 'Bloodgood'	Bloodgood Japanese Maple	24" BOX-STD.	SEE PLANS	M
ACE SAN*	Acer p. 'Sango Kaku'	Coral Bark Maple	36" BOX-MULTI	SEE PLANS	M
LAG MYE	Lagerstroemia l. 'Muskaquee'	Crape Myrtle	24" BOX-STD.	SEE PLANS	L
LAU SAR*	Laurus nobilis 'Saratoga'	Saratoga Laurel	24" BOX-STD.	SEE PLANS	L
LPH CON	Lophostemon confertus	Brisbane Box	24" BOX-STD.	SEE PLANS	M
<b>SHRUBS, GROUNDCOVERS &amp; GRASSES</b>					
ANI BUS	Anigozanthus h. 'Bush Gold'	Kangaroo Paw	5 GAL	36" O.C.	L
ASP ELA*	Aspidistra elatior	Cast-Iron-Plant	1 GAL	18" O.C.	L
ASP MYE*	Asparagus d. 'Myers'	Myers Asparagus Fern	5 GAL	30" O.C.	M
AZA ALA*	Azalea x. 'Alaska'	White Azalea	5 GAL	48" O.C.	M
CAL PUR	Callibrachoa x 'Purple'	Purple Million Bells	4" POTS	8" O.C.	M
CHO TEC	Chondropetalum tectorum	Small Cape Rush	5 GAL	48" O.C.	L
DIE VEG*	Dietes vegeta	Fortnight Lily	5 GAL	36" O.C.	L
EVO SIL*	Evonymus j. 'Silver King'	Upright Evonymus	5 GAL	36" O.C.	L
EGU HYM	Equisetum hymale	Horsetail	5 GAL	24" O.C.	H
FES ELI	Festuca g. 'Elijah Blue'	Common Blue Fescue	1 GAL	18" O.C.	L
LIR SIL*	Liriope m. 'Silvery Sunproof'	Variegated Lily Turf	1 GAL	18" O.C.	M
LOR FLU*	Loropetalum chinense 'Plum Delight'	Fringe Flower	5 GAL	42" O.C.	L
NAN GUL*	Nandina d. 'Sulf Stream'	Dwarf Heavenly Bamboo	1 GAL	24" O.C.	L
PHO DAR	Phormium h. 'Dark Delight'	New Zealand Flax	15 GAL	36" O.C.	L
PHO PLA	Phormium h. 'Platt's Black'	New Zealand Flax	5 GAL	36" O.C.	L
PIT CRE*	Pittosporum t. 'Cream De Mint'	Pittosporum	5 GAL	30" O.C.	L
PIT VAR*	Pittosporum tobira 'Variegata'	Variegated Tobira	5 GAL	48" O.C.	L
POD MAK*	Podocarpus m. 'Maki'	Shrubby Yew Pine	15 GAL	42" O.C.	M
SAR HUM*	Sarcococca hookeriana humilis	Sweet Box	15 GAL	36" O.C.	L
TAX HIC*	Taxus x. media 'Hicksii'	Upright Yew	15 GAL	42" O.C.	M
TRA JAS*	Trachelospermum jasminoides	Star Jasmine	5 GAL	42" O.C.	M
WOO FIM*	Woodwardia fimbriata	Giant Chain Fern	5 GAL	48" O.C.	M

NOTES:  
 1. - WUCOLS (WATER USE CLASSIFICATION) RATING ABOVE IS AN INDUSTRY STANDARD FOR IRRIGATION WATER NEEDS OF LANDSCAPE PLANTINGS IN SPECIFIC CALIFORNIA REGIONS. THE MAJORITY OF PLANTS FOR THIS REGION ARE VERY LOW (VL) TO MEDIUM (M) WATER REQUIREMENTS AND PLANTED IN SPECIFIC HYDROZONES. ABBREVIATIONS FOR WUCOLS WATER NEEDS ARE: VL - VERY LOW, L - LOW, M - MEDIUM, H - HIGH.  
 2. \* DENOTES SHADE TOLERANT PLANTS (I.E. SHADY CONDITIONS ALONG THE ADJACENT SOUTHEAST DEVELOPMENT AND UNDER THE EXISTING REDWOODS).

EL CAMINO REAL

**ROOF DECK  
PRELIMINARY LANDSCAPE PLAN**

NOT FOR CONSTRUCTION  
 APPLICATION NOS. 18-D-01, 18-UP-01, and 18-SD-01

**ALTOS ONE**  
 4856 & 4846 EL CAMINO REAL  
 LOS ALTOS, CALIFORNIA 94022



DATE: 07/16/18  
 JOB# 16017.01



L-2  
 2 of 3



## TREE IMAGERY



**Bloodgood Japanese Maple**  
Acer p. 'Bloodgood'  
Accent Tree,  
Slow Growth to 20' H x 15' W



**Coral Bark Maple**  
Acer p. 'Sango Kaku'  
Accent Tree,  
Moderate Growth to 20' H x 15' W



**Crape Myrtle**  
Lagerstroemia i. 'Muskogee'  
Screen Tree,  
Moderate Growth to 18' H x 10' W



**Saratoga Laurel**  
Laurus n. 'Saratoga'  
Screen Tree,  
Moderate Growth to 20' H x 10' W



**Brisbane Box**  
Lophostemon confertus  
Street Tree,  
Moderate Growth to 35' H x 25' W

## SHRUB & GROUNDCOVER IMAGERY



**Myers Asparagus Fern**  
Asparagus d. 'Myers'



**White Azalea**  
Azalea x. 'Alaska'



**Purple Million Bells**  
Calibrachoa x. 'Purple'



**Small Cape Rush**  
Chondropetalum tectorum



**Fortnight Lily**  
Dietes vegeta



**Horsetail**  
Equisetum hyemale



**Upright Euonymus**  
Euonymus j. 'Silver King'



**Variegated Lily Turf**  
Liriope m. 'Silvery Sunproof'



**Variegated Lily Turf**  
Liriope m. 'Variegata'



**Fringe Flower**  
Loropetalum c. 'Plum Delight'



**Dwarf Heavenly Bamboo**  
Nandina d. 'Gulf Stream'



**New Zealand Flax**  
Phormium t. 'Dark Delight'



**Dwarf Pittosporum**  
Pittosporum t. 'Cream De Mint'



**Variegated Tobira**  
Pittosporum t. 'Variegata'



**Shrubby Yew Pine**  
Podocarpus m. 'Maki'  
Screen Shrub, Moderate Growth to 9' H x 3' W



**Sweet Box**  
Sarcococca hookeriana humilis



**Upright Yew**  
Taxus x. media 'Hicksii'  
Screen Shrub, Moderate Growth to 10' H x 3' W



**Star Jasmine**  
Trachelospermum jasminoides



**Giant Chain Fern**  
Woodwardia fimbriata

## SITE AMENITY IMAGERY



FIREPIT AREA - ROOF DECK PRECEDENT



LARGE FORMAT PAVERS



BOARD FORM FINISH CONCRETE



DECORATIVE MASONRY WALL



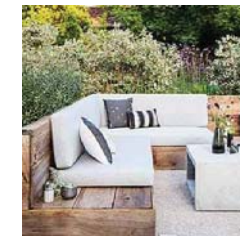
OUTDOOR MOVIE SCREEN



CORTEN STEEL, RAISED PLANTER



LOUNGE CHAIR



BUILT-IN BENCH



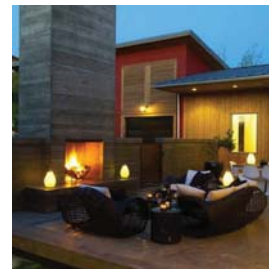
OUTDOOR KITCHEN



DINING TABLE



ROOF DECK - WOOD PAVING



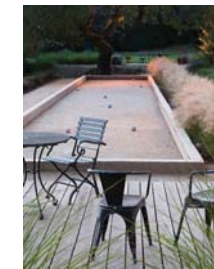
FIREPLACE



WATER FEATURE



SHADE SAIL



BOCCIE COURT



WATER FEATURE

## LANDSCAPE DESIGN IMAGES

NOT FOR CONSTRUCTION

APPLICATION NOS. 18-D-01, 18-UP-01, and 18-SD-01

**ALTOS ONE**  
4856 & 4846 EL CAMINO REAL  
LOS ALTOS, CALIFORNIA 94022

NOTE: PLANTING CALLOUTS, REFER TO SHEET L-2 FOR PLANT LEGEND



DATE: 07/18/18  
JOB# 16017.01

L-3  
3 of 3

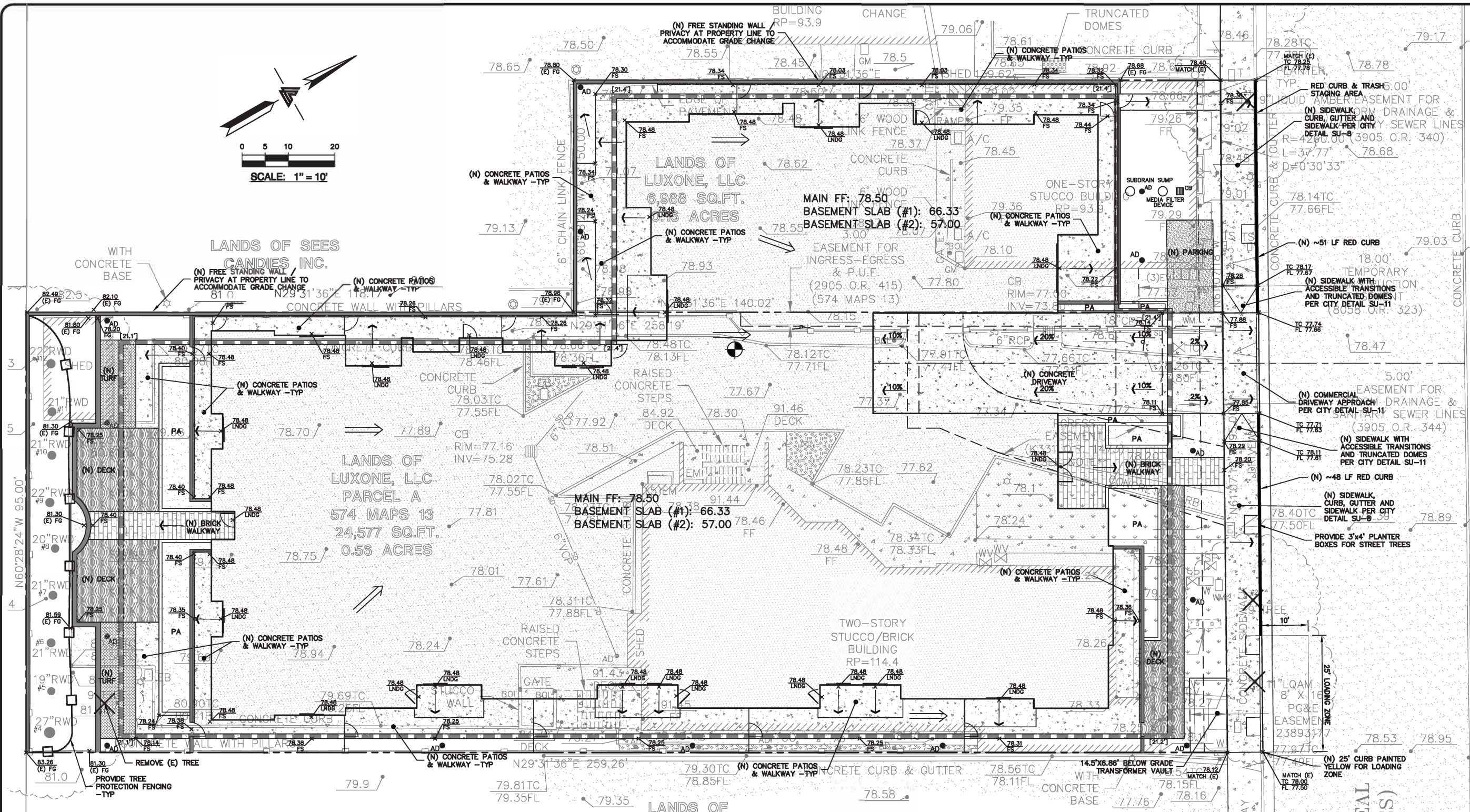
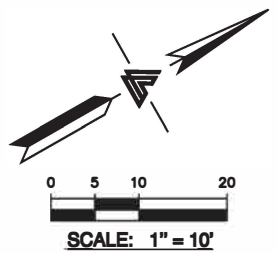


**ENVIRONMENTAL FORESIGHT, INC.**  
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Walnut Creek, CA 94596  
T (925) 945-0300 F (925) 945-6688  
www.environmentalforesight.com









**PRELIMINARY CONSTRUCTION PLAN  
TRAFFIC, PARKING, AND NOISE NOTES  
MANAGEMENT**

- 1. CONSTRUCTION HOURS:**  
 NON HOLIDAYS AND WEEKDAYS 7:00AM-7:00PM  
 HEAVY NOISE IMPACT ACTIVITIES 8:00AM-3:00PM
- 2. TRUCK ROUTES ARE IDENTIFIED ON THE PLAN.**
- 3. NO SIDEWALK CLOSURES ARE NOTED ON THE PLAN.**
- 4. TRANSPORTATION PERMITS FOR OVERSIZED LOADS WILL BE OBTAINED AS REQUIRED.**
- PARKING**
- CONTRACTORS AND THEIR EMPLOYEES WILL CARPOOL WHENEVER POSSIBLE.
  - CONTRACTORS AND THEIR EMPLOYEES WILL DELIVER TOOLS, EQUIPMENT AND MATERIALS ON SITE BUT PARK OFF SITE TO AVOID NEARBY RESIDENTIAL STREETS AND NEIGHBORHOODS.
  - CONSTRUCTION HEAVY EQUIPMENT, LIFTS, AND TOOLS TO REMAIN ON SITE AND BE STORED ON SITE.
  - CONTRACTOR WILL OBTAIN PERMITS FOR NEARBY PARKING LOTS IF AVAILABLE.
  - NO SPILL OVER PARKING TO RESIDENTIAL STREETS AND NEIGHBORHOODS.
  - CONTRACTORS AND EMPLOYEES ARE TO WALK FROM OFFSITE PARKING TO JOB SITE VIA APPROVED PEDESTRIAN ROUTES.
  - INGRESS AND EGRESS FOR CONSTRUCTION EQUIPMENT IS PER PLAN.

**SIGNAGE**

- SIGNAGE TO BE POSTED TO REINFORCE TRUCK DELIVERY ROUTES.
- SIDEWALK CLOSURE NOTIFICATION SIGNS AND BARRICADES TO BE PLACED AS NEEDED DURING SIDEWALK CLOSURE PERIODS.

**PEDESTRIAN/BICYCLE ROUTES**

- CONSTRUCTION SITE TO BE FENCED OFF FROM PEDESTRIAN AND BICYCLES.
- PEDESTRIAN SIDEWALK ROUTES TO BE SIDE OF STREET OPPOSITE THE CONSTRUCTION SITE.
- SIDEWALK CLOSURES AND DETOURS TO BE CLEARLY MARKED AT ALL TIMES.
- SIDEWALK CLOSURE SIGNS TO BE PLACED AND NEAREST CROSSWALKS IN EACH DIRECTION TO DETOUR PEDESTRIAN TRAFFIC.

**NOISE REDUCTION**

- COMPLY WITH CITY'S NOISE CONTROL ORDINANCE AS STATED IN CHAPTER 6.16 OF THE MUNICIPAL CODE.
- AT LEAST 24 HOURS PRIOR TO ANY JACK HAMMERING ACTIVITIES, ALL OCCUPANTS OF THE ADJACENT PROPERTIES WILL BE NOTIFIED.

**FLATWORK**

FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.3 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.11.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP.

PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

- (N) AC DRIVEWAY. GRIND (N) AC TO TIE INTO (E) AC PAVING.
- (N) CONCRETE DRIVEWAY.
- (N) CONCRETE PATIOS/WALKWAYS.
- (N) BRICK PATIOS/WALKWAYS.
- (N) WOOD DECKING. SEE LANDSCAPE PLANS FOR DESIGN DETAILS.

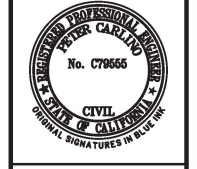
**DEMOLITION**

DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

PROVIDE TREE PROTECTION AROUND TREES TO REMAIN.

TREE INVENTORY		
SIZE/DESCRIPTION		STATUS
22" REDWOOD (#12)		TO REMAIN
21" REDWOOD (#11)		TO REMAIN
21" REDWOOD (#10)		TO REMAIN
22" REDWOOD (#9)		TO REMAIN
20" REDWOOD (#8)		TO REMAIN
21" REDWOOD (#7)		TO REMAIN
21" REDWOOD (#6)		TO REMAIN
19" REDWOOD (#5)		TO REMAIN
27" REDWOOD (#4)		TO REMAIN
9" AMBER (#3)		TO BE REMOVED
9" TREE (#2)		TO BE REMOVED
11" AMBER (#1)		TO BE REMOVED
9" TREE (#13)		TO BE REMOVED



**LEA & BRAZE ENGINEERING, INC.**  
 CIVIL ENGINEERS • LAND SURVEYORS  
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 (510) 887-7386  
 WWW.LEABRAZE.COM

**ALDOS ONE**  
 4846 & 4856 EL CAMINO REAL  
 LOS ALTOS, CALIFORNIA  
 APN: 170-02-(027 & 029)  
 SANTA CLARA COUNTY

**GRADING &  
DRAINAGE PLAN**

REVISIONS	BY

JOB NO: 2160433  
 DATE: 04-30-18  
 SCALE: 1" = 10'  
 DESIGN BY: TC/CA  
 DRAWN BY: TB  
 SHEET NO:

**TM-2.0**  
 03 OF 07 SHEETS





**LEA & BRAZE ENGINEERING, INC.**  
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 (510) 887-7383  
 WWW.LEA-BRAZE.COM

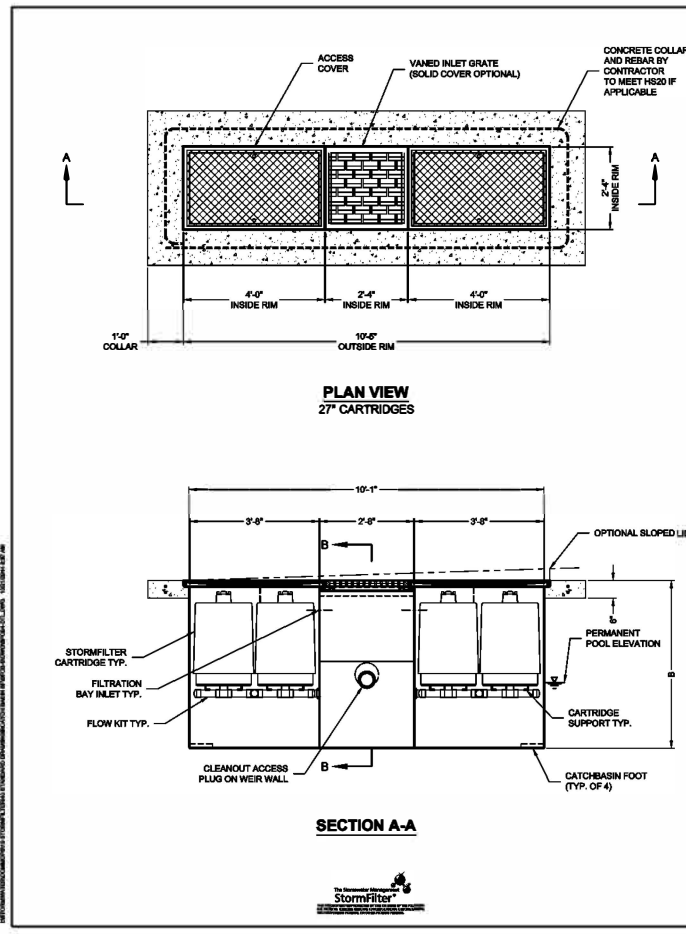
ALTO S ONE  
 4846 & 4856 EL CAMINO REAL  
 LOS ALTOS, CALIFORNIA  
 APN: 170-02-(027 & 029)  
 SANTA CLARA COUNTY

STORMWATER CONTROL  
 DETAILS

REVISIONS	BY

JOB NO: 2160433  
 DATE: 04-30-18  
 SCALE: 1" = 10'  
 DESIGN BY: PC/CA  
 DRAWN BY: TB  
 SHEET NO:

**TM-3.1**  
 05 OF 07 SHEETS



**STORMFILTER CATCHBASIN DESIGN NOTES**

STORMFILTER TREATMENT CAPACITY IS A FUNCTION OF THE CARTRIDGE SELECTION AND THE NUMBER OF CARTRIDGES. 4 CARTRIDGE CATCHBASIN HAS A MAXIMUM OF FOUR CARTRIDGES. SYSTEM IS SHOWN WITH A 27° CARTRIDGE, AND IS ALSO AVAILABLE WITH AN 18° CARTRIDGE. STORMFILTER CATCHBASIN CONFIGURATIONS ARE AVAILABLE WITH A DRY INLET BAY FOR VECTOR CONTROL. PEAK HYDRAULIC CAPACITY PER TABLE BELOW. IF THE SITE CONDITIONS EXCEED PEAK HYDRAULIC CAPACITY, AN UPSTREAM BYPASS STRUCTURE IS REQUIRED.

CARTRIDGE SELECTION	27°	18°	18° DEEP
CARTRIDGE HEIGHT	2.7"	2.7"	3.7"
MINIMUM HYDRAULIC DROP (H)	3.09'	2.5'	3.7'
SPECIFIC FLOW RATE (gpm/ft)	2 gpm/ft	1 gpm/ft	2 gpm/ft
CARTRIDGE FLOW RATE (gpm)	22.5	11.25	16
PEAK HYDRAULIC CAPACITY	1.0	1.0	1.8
INLET PERMANENT POOL LEVEL (A)	1'-0"	1'-0"	2'-0"
OVERALL STRUCTURE HEIGHT (B)	4'-0"	3'-0"	4'-0"

**GENERAL NOTES:**

- CONTRACTOR TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWINGS WITH DETAILED STORMFILTER CATCHBASIN STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTRACTOR ENGINEERED SOLUTIONS LLC REPRESENTATIVE. WWW.CONTECHES.COM
- STORMFILTER CATCHBASIN WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
- INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
- STORMFILTER CATCHBASIN EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE. CASTINGS SHALL MEET AASHTO M288 LOAD RATING. TO MEET H202 LOAD RATING ON STRUCTURE, A CONCRETE COLLAR IS REQUIRED. WHEN REQUIRED, CONCRETE COLLAR WITH QUANTITY (2) #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
- FILTER CARTRIDGES SHALL BE MEDIA-FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF-CLEANING. RADIAL MEDIA DEPTH SHALL BE 7 INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS.
- SPECIFIC FLOW RATE IS EQUAL TO THE FILTER TREATMENT CAPACITY (gpm) DIVIDED BY THE FILTER CONTACT SURFACE AREA (sq ft).

**INSTALLATION NOTES:**

- ANY SUB-SOLES, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CATCHBASIN (LIFTING CLUTCHES PROVIDED).
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION-RELATED EROSION RUNOFF.

**4-CARTRIDGE CATCHBASIN STORMFILTER DATA**

STRUCTURE ID	XXX
WATER QUALITY FLOW RATE (gpm)	XXX
PEAK FLOW RATE (<1 db)	XXX
RETURN PERIOD OF PEAK FLOW (YRS)	XXX
CARTRIDGE FLOW RATE (gpm)	XX
MEDIA TYPE (CSF, PERLITE, ZPG, GAC, PHS)	XXXXX
RIM ELEVATION	XXXXXX
PIPE DATA:	I.E. DIAMETER
INLET STUB	XXX'XX' XX'
OUTLET STUB	XXX'XX' XX'
CONFIGURATION	OUTLET INLET
SLOPED LID	YES/NO
SOLID COVER	YES/NO
NOTES/SPECIAL REQUIREMENTS:	
*PER ENGINEER OF RECORD	

**CONTECH ENGINEERED SOLUTIONS LLC**  
 WWW.CONTECHES.COM  
 8025 Contra Pointe Dr., Suite 400, West Chester, OH 45386  
 800-258-1122 513-445-7800 513-445-7893 FAX

**4 CARTRIDGE CATCHBASIN STORMFILTER STANDARD DETAIL**

LOCATION OF RECEIVING WATER BODY	ADOBE CREEK (ENGINEERED CHANNEL)
POLLUTANTS & POLLUTANT SOURCE AREAS INCLUDING LOADING DOCKS, FOOD SERVICE AREAS, REFUSE AREAS, OUTDOOR PROCESSES AND STORAGE, VEHICLE CLEANING, REPAIR OR MAINTENANCE, FUEL DISPENSING.	RETAIL AND SURFACE PARKING AND BUILDINGS ON APPROXIMATELY 0.7 ACRES EXISTING.
EXISTING NATURAL HYDROLOGIC FEATURES (DEPRESSIONS, NAMES OF WATERCOURSES, ETC.) AND SIGNIFICANT NATURAL RESOURCES.	NONE.
PROJECT WITHIN FLOOD ELEVATION?	SITE IS IN FLOOD ZONE X. FLOOD ZONE X IS AN AREA OF 0.2% ANNUAL FLOOD CHANCE; AVERAGE DEPTHS OF LESS 1' OR WITH DRAINAGE AREA LESS THAN 1SQ MILE; AND AREAS PROTECTED BY LEVELS FROM 1% ANNUAL CHANCE FLOOD. THERE ARE NO CITY FLOOD PLAN REQUIREMENTS X.
EXISTING AND PROPOSED TREES, SPECIFYING SIZE SPECIES, CONDITION AND DISPOSITION.	SEE LANDSCAPE PLAN FOR INFORMATION ON PROPOSED TREES.
DRAINAGE FLOWS AND OVERLAND RELEASE FLOWS	SEE PLAN FOR ARROWS.
EXISTING AND PROPOSED TOPOGRAPHIC CONTOURS WITH DRAINAGE AREAS AND SUB AREAS DELINEATED AND ARROWS SHOWING FLOW DIRECTION.	SEE PLAN SHEET TM-3.0
TYPES OF PAVING MATERIALS	CONCRETE PAVEMENT AND PAVERS
DETAILS OF PERVIOUS PAVEMENT	NONE.
SEPARATE DRAINAGE AREAS DEPENDING ON COMPLEXITY OF DRAINAGE NETWORK.	
FOR EACH DRAINAGE AREA, SPECIFY TYPES OF IMPERVIOUS AREA (ROOF, PLAZA, SIDEWALK, STREETS, PARKING, ETC.) AND AREA OF EACH.	SEE PERVIOUS & IMPERVIOUS SURFACES COMPARISON CHART ON SHEET TM-3.0
LOCATION, SIZE, AND IDENTIFICATION OF TYPES OF SOURCE CONTROL MEASURES, WATER QUALITY TREATMENT CONTROL MEASURES AND BEST MANAGEMENT PRACTICES.	SCMs INCLUDE COVERED INTERIOR PARKING, COVERED TRASH ENCLOSURES, INTERIOR POOL, COVERED LOADING BAYS, BENEFICIAL LANDSCAPING, EFFICIENT IRRIGATION SYSTEMS, PAVEMENT AND STORM DRAIN MAINTENANCE, AND STORM DRAIN LABELING.
DETAILED MAINTENANCE PLAN AND MAINTENANCE SCHEDULE FOR ALL PROPOSED SCMs AND TCMs.	
DETAILS OF ALL PROPOSED WATER QUALITY TREATMENT MEASURES.	SITE WILL BE TREATED BY MECHANICAL FILTRATION UNITS.
LOCATION, SIZE, AND IDENTIFICATION OF PROPOSED LANDSCAPING/PLANT MATERIAL.	SEE PLAN AND ALSO LEGEND FOR LOCATION/SIZE OF PLANTING AREAS. SEE LANDSCAPE PLANS FOR INFORMATION ON PROPOSED PLANT MATERIAL.
ENSURE CONSISTENCE WITH GRADING & DRAINAGE PLAN AND LANDSCAPE PLAN	DONE
CALCULATION ILLUSTRATING WATER QUALITY TREATMENT CONTROL MEASURES MEET NUMERICAL STANDARDS.	SEE TABLE ON SHEET TM-3.0 - AND CALCULATION ON THIS SHEET.
LICENSED CERTIFICATION THAT THE SPECIFIC TCMs MEET THE REQUIREMENTS FOR POST-CONSTRUCTION URBAN RUNOFF MANAGEMENT	PLAN STAMPED BY CIVIL ENGINEER.

**STORMWATER FILTER UNIT SIZING (SITE)**  
 THE FOLLOWING STEPS FOR SIZING THE PROPOSED STORMFILTER UNITS ARE TAKEN FROM THE PRODUCT DESIGN GUIDELINES BY CONTECH INC. STORMWATER MANAGEMENT INC. (PRODUCT MANUFACTURER). THE RATIONAL METHOD INFORMATION CONTAINED IN STEP 1 IS BASED ON THE METHODOLOGY PROVIDED BY THE SANTA CLARA VALLEY RUNOFF POLLUTION PREVENTION PROGRAM FOR CALCULATING TREATABLE FLOW RATES.

- DETERMINE THE NUMBER OF CARTRIDGES FOR A HIGHLY DRAINAGE AREA (>75% IMPERVIOUS)
- TOTAL DRAINAGE AREA
- STEP 1  
 CALCULATE THE TREATABLE FLOW RATE FROM THE WATER QUALITY STORM (Q-treat) FOR THE SITE. USE THE RATIONAL METHOD TO SOLVE FOR Q.  
 $Q = CIA$   
 $C = 0.9$  (PAVED SURFACE RUNOFF COEFFICIENT)  
 $I = 0.2$  (RAINFALL INTENSITY, INCHES/HOUR)  
 $A = 0.7$  ACRES  
 $Q = 0.9 \times 0.2 \times 0.7$   
 $Q = 0.13$  CFS
- STEP 2  
 CALCULATE THE NUMBER OF CARTRIDGES REQUIRED TO TREAT THE PEAK WATER QUALITY FLOW RATE (N-flow) FOR THE SITE.  
 $N\text{-flow} = Q\text{-treat} (449\text{gpm/cart, WHICH IS THE MAXIMUM FLOW RATE THAT AN INDIVIDUAL CARTRIDGE CAN TREAT.})$   
 IF THE NUMBER OF CARTRIDGES IS NOT A WHOLE NUMBER, ROUND THE NUMBER OF CARTRIDGES UP TO THE NEXT WHOLE NUMBER.  
 $N\text{-flow} = (0.13 \text{ CFS}) \times (449 \text{ gpm/cart} / 12.50 \text{ gpm/cart})$   
 $N\text{-flow} = 4.66 = 5$  CARTRIDGES
- STEP 3  
 CALCULATE THE FLOW RATE FROM 10 YEAR STORM. USE THE RATIONAL METHOD TO SOLVE FOR Q.  
 $Q = CIA$   
 $C = 0.9$  (PAVED SURFACE RUNOFF COEFFICIENT)  
 $I = 2.0$  (RAINFALL INTENSITY PER CPC, INCHES/HOUR)  
 $A = 0.7$  ACRES  
 $Q = 0.9 \times 2.0 \times 0.7$   
 $Q = 1.26$  CFS (TOTAL FLOWRATE)

**RESPONSIBLE PARTY**  
 A MAINTENANCE AND MONITORING PROGRAM SHALL BE IMPLEMENTED TO ENSURE THAT ALL STORMWATER TREATMENT BMP'S WILL BE PERMANENTLY MAINTAINED BY THE PROPERTY OWNER, FOR THE LIFE OF THE DEVELOPMENT, TO THE SATISFACTION OF THE DIRECTOR OF PLANNING.

**BEST MANAGEMENT PRACTICES**  
 CONSTRUCTION BMP'S MAY INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCE/STRAW WADDLES AROUND PERIMETER OF SITE FOR SEDIMENT CONTROL, REGULAR STREET CLEANING, AND INLET PROTECTION DURING CONSTRUCTION.

**STORMWATER TREATMENT STATEMENT**  
 THIS PROJECT IS A TYPICAL MID-RISE URBAN INFILL SITE WITH HIGH DENSITY REQUIRED BY THE CITY'S GENERAL PLAN. 93% OF THE SITE IS PRESENTLY IMPERVIOUS. THE USE OF BELOW GROUND MECHANICAL STORMWATER TREATMENT UNITS SUCH AS THOSE MANUFACTURED BY CONTECH INC. MAY BE USED FOR THIS PROJECT. ALL STORMWATER RUNOFF FROM THIS PROJECT, INCLUDING THE ROOF COLLECTED WATER AND GROUND LEVEL RUNOFF, WILL BE TREATED BEFORE IT ENTERS THE COLLECTION SYSTEM.

THE PROPOSED MIXED USE PROJECT WILL INCREASE THE AMOUNT OF IMPERVIOUS SURFACES AND RUNOFF QUANTITY.

# CONSTRUCTION MANAGEMENT PLAN

4846 & 4855 EL CAMINO REAL  
LOS ALTOS CA JULY 1, 2012



## ACKNOWLEDGEMENT

THE GOAL OF THIS CONSTRUCTION MANAGEMENT PLAN IS TO MINIMIZE CONSTRUCTION RELATED IMPACTS TO THE SURROUNDING NEIGHBORHOOD AND ADJACENT PROPERTIES AND THEIR OCCUPANTS. SPECIFICALLY, THE OBJECTIVES OF THIS PLAN ARE TO:

- REDUCE PARKING IMPACTS RELATED TO THE PROPOSED CONSTRUCTION;
- CONTAIN CONSTRUCTION RELATED PARKING TO PROJECT SITE AND AREAS APPROVED BY THE CITY;
- REDUCE CONSTRUCTION NOISE IMPACTS TO THE GREATEST EXTENT TECHNICALLY AND ECONOMICALLY FEASIBLE;
- AND MINIMIZE OFF-SITE DUST AND AIR QUALITY IMPACTS PER BEST MANAGEMENT PRACTICES.

IN ORDER TO ACHIEVE THE ABOVE STATED GOAL AND OBJECTIVES, WE AGREE TO, AND WILL ABIDE BY, THE TERMS CONTAINED IN THIS CONSTRUCTION MANAGEMENT PLAN.

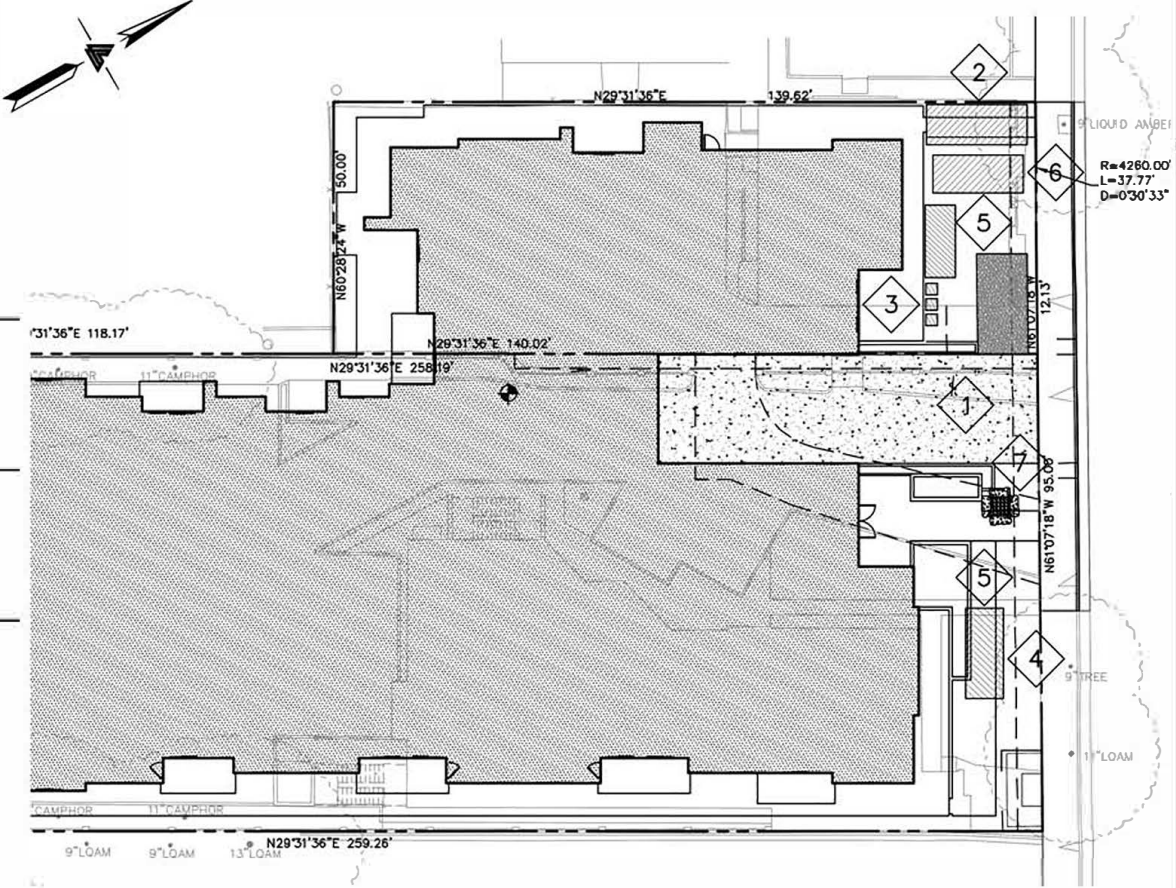
OWNER, 4846 & 4855 EL CAMINO REAL DATE

## APPROVALS

ENGINEERING DIVISION

PLANNING DIVISION

BUILDING DIVISION



### 4846 & 4855 ECR Project Los Altos, CA.

#### Material Delivery Plan

Luxone LLC has developed this material delivery plan to reduce the construction traffic impact on the surrounding neighbors. The project Superintendent will be the designated on site responsible party and will have full authority in any required action necessary to enforce compliance of this plan. This plan outlines general practices to be followed to reduce the construction traffic caused by our construction activity.

1. When possible all deliveries shall be completed before 10:00 am.
2. All delivery trucks shall strictly adhere to the designated routes as shown on the Truck Route map.
3. Whenever possible deliver full loads to eliminate multiple deliveries of the same materials.
4. Schedule deliveries so that multiple trucks do not show up at the same time and cause interference with normal flow of local traffic.
5. When deliveries are scheduled make sure the site is ready for the materials and that the appropriate traffic control is in place to minimize the unloading and presence of the truck at the site.

#### Construction Site Parking and Staging Plan

Luxone LLC has developed this Construction Site Parking and Staging Plan to reduce the construction impact on the surrounding neighbors. The project Superintendent will be the designated on site responsible party and will have full authority in any required action necessary to enforce compliance of this plan. This plan outlines general practices to be followed to reduce the construction impact on the surrounding neighbors.

1. During the basement excavation and construction there will be an average of 10 vehicles associated with this phase of construction. Parking for this phase will be limited to the project frontage on El Camino and across the street on El Camino.
2. During vertical construction it is anticipated that there will be an average of 30 vehicles to support this phase of construction. Upon completion of the basement parking structure, the parking structure shall be used for employee parking and materials storage for non-combustible materials such as the plumber's pipes and fittings and electrician's wire and boxes.
3. We anticipate the construction office trailer to be 3' x 20' and that there will be one other storage unit of similar size 3' x 20'. See plan sheet for the locations.
4. Construction fencing shall consist of a temporary fence on blocks approximately 8' tall with a green screen. Access to the site will be by one gate located at the building ramp.
5. Material staging area shall be located on site as shown on the construction management plan.

### 4846 & 4855 ECR Project Los Altos, CA.

#### Noise Reduction Plan

Luxone LLC has developed this noise reduction plan to reduce the construction noise impact on the surrounding neighbors. The project Superintendent will be the designated on site responsible party and will have full authority in any required action necessary to enforce compliance of this plan. This plan outlines general practices to be followed to reduce the noise impact caused by our construction activity.

1. Construction hour shall be 7:30 AM. to 4:00 PM. As outlined by the City of Los Altos.
2. All construction tools and equipment must be in good running order so that they operate at normal manufacturer's operation specifications, including at peak loading.
3. All construction equipment being operated on site must be equipped with the appropriate manufacturer's noise reduction devices(s) including but not limited to a muffler that is free of rust, holes, and exhaust leaks.
4. The project superintendent shall mitigate noise from construction devices with internal combustion engines by ensuring that the engine's housing doors are kept closed or as recommended by the manufacturer's guidelines for proper engine operation or exhaust.
5. Reduce equipment noise by operating the device at lower engine speeds during the work to the maximum extent possible.
6. Vehicle and equipment engine idling on site shall be limited to 5 minutes when practical.
7. Whenever practical the smallest tool or equipment shall be used they tend to be quieter.
8. The positioning and operation of dump truck shall be reviewed to reduce the use of back up alarms.
9. Slamming of dump truck tailgates shall be avoided to the extent possible to prevent unreasonable noise.
10. At least 24 Hrs. prior to any jack-hammering activities, all occupants of adjacent properties will be notified.
11. All equipment shall be properly maintained and all moving parts shall be well lubricated for proper operation and to avoid unnecessary noise from squeaking parts.
12. Steel Plates shall be installed on the street surface in a way that creates a smooth transition from pavement to the plate surface and to keep the plates firmly in place and reduce the noise as vehicles cross over it.
13. Wedges or other similar devices shall be used to prevent steel plates from rocking or shifting.
14. Asphalt cold-patch shall be applied when feasible around the edges of the steel plate's to minimize vehicle tire impact on the plates and to help keep the plates in place.

## NOTES:

1. PROVIDE TEMPORARY CONSTRUCTION ENTRANCE, THE SITE SHALL HAVE A TEMPORARY CONSTRUCTION DRIVEWAY OF BASE ROCK, OR ALTERNATE MATERIAL APPROVED BY THE ENGINEERING DEPARTMENT, BEGINNING AT THE EDGE OF PAVEMENT AND EXTENDING TO A POINT ON-SITE TO REDUCE DUST AND MUD TRACKING. SIGNS, DELINEATORS, AND FLAG PERSONS SHALL BE AVAILABLE ON-SITE IF NECESSARY. IF AN EXISTING PAVED DRIVEWAY IS MAINTAINED DURING CONSTRUCTION, A TEMPORARY ACCESS WILL NOT BE REQUIRED. ENSURE SOIL AND DEBRIS DOES NOT ENTER THE CITY RIGHT OF WAY. PROVIDE STREET SWEEPING AS REQUIRED.
2. CONSTRUCTION TRAILER (ESTIMATED SIZE 8FT X 20FT) - FINAL LOCATION SHALL BE CONFIRMED BY CONTRACTOR AT THE TIME OF PLACEMENT.
3. SANITARY FACILITIES - THE TEMPORARY SANITARY FACILITIES SHALL BE PLACED OUT OF VIEWS OF ADJACENT NEIGHBORING PROPERTIES. THE FACILITIES SHALL BE ABLE TO BE ACCESSED FROM A PAVED OR ROCKED ROAD OR DRIVEWAY. THE SANITARY FACILITIES MAY NOT BE LOCATED IN THE PUBLIC RIGHT OF WAY.
4. PROVIDE TEMPORARY POWER SOURCE, COORDINATE WITH PG&E FOR FINAL LOCATION.
5. CONSTRUCTION MATERIALS STORAGE - AN AREA SHALL BE DESIGNATED ON-SITE FOR THE STORAGE OF CONSTRUCTION MATERIALS.
6. DEBRIS BOX - A DEBRIS BOX SHALL BE PLACED ON-SITE FOR COLLECTION OF CONSTRUCTION DEBRIS. ARRANGEMENTS MUST BE MADE WITH THE LOS ALTOS GARBAGE COMPANY FOR THE DEBRIS BOX, SINCE THEY HAVE A FRANCHISE WITH THE TOWN AND NO OTHER HAULER IS ALLOWED WITHIN THE TOWN LIMITS. THE DEBRIS BOX SHOULD BE ACCESSIBLE FROM A PAVED OR ROCKED ACCESS ROAD.
7. CLEAN-UP AREA - WHEN ON-SITE CLEANING OF EQUIPMENT IS REQUIRED FOR CEMENT FORMS AND TRUCKS, PAINT BRUSHES, PLASTERING TOOLS, AND SUCH, THEN A CLEAN-UP AREA MUST BE SPECIFIED AND POSTED WITH A SIGN. THIS AREA MUST NOT BE LOCATED BENEATH ANY TREE'S CANOPY OR IN ANY PROPOSED PLANTING AREA. RUN OFF FROM THE CLEAN-UP AREA CAN BE CONTAINED BY PROVIDING A TEMPORARY BASE OF WOOD CHIPS OR OTHER NATURAL ABSORBENT MATERIAL TO BE DISPOSED OFF SITE.

**LEA & BRAZE ENGINEERING, INC.**  
CIVIL ENGINEERS - LAND SURVEYORS  
BAY AREA REGION SACRAMENTO REGION  
2485 INDUSTRIAL PKWY WEST 3017 DOUGLAS BLVD, # 300  
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WWW.LEABRAZE.COM

ALTA S O N E  
4846 & 4855 EL CAMINO REAL  
LOS ALTOS, CALIFORNIA  
SANTA CLARA COUNTY APN: 170-02-027 & 028

## PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

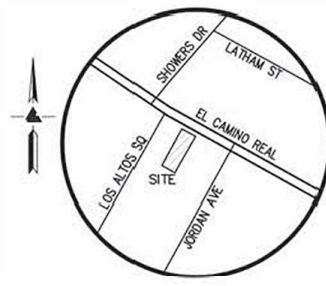
REVISIONS	BY

JOB NO: 2160433  
DATE: 03-05-18  
SCALE: 1" = 30'  
DESIGN BY: PC/CA  
DRAWN BY: TB  
SHEET NO:

**CMP 1**  
02 OF 02 SHEETS







VICINITY MAP  
NO SCALE

**NOTES**

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.  
UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.  
BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.  
FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR)

**SITE BENCHMARK**

SURVEY CONTROL POINT  
MAG AND SHINER SET IN ASPHALT  
ELEVATION = 77.80'  
(NAVD 88)

**EASEMENT NOTE**

EASEMENTS SHOWN ARE PER TITLE REPORT PREPARED BY FIRST AMERICAN TITLE COMPANY, ORDER NO. 4316-5620193, DATED JANUARY 18, 2018 AND EASEMENT DOCUMENT NO. 23893177.  
NOTE: EASEMENT DOCUMENT (K331 O.R. 1473)  
ADJUSTS THE EASEMENT SHOWN ON PARCEL MAP (574 MAPS 13) AND DESCRIBED IN DOCUMENT (K157 O.R. 1249)

**BENCHMARK**

CITY OF MOUNTAIN VIEW BENCHMARK IV-25 BRONZE DISK STAMPED "IV-25" SET IN TOP OF CURB AT THE NORTH END OF THE NORTHWEST RETURN OF SHOWERS DR & EL CAMINO REAL  
ELEVATION = 76.789'  
(NAVD 88 DATUM)

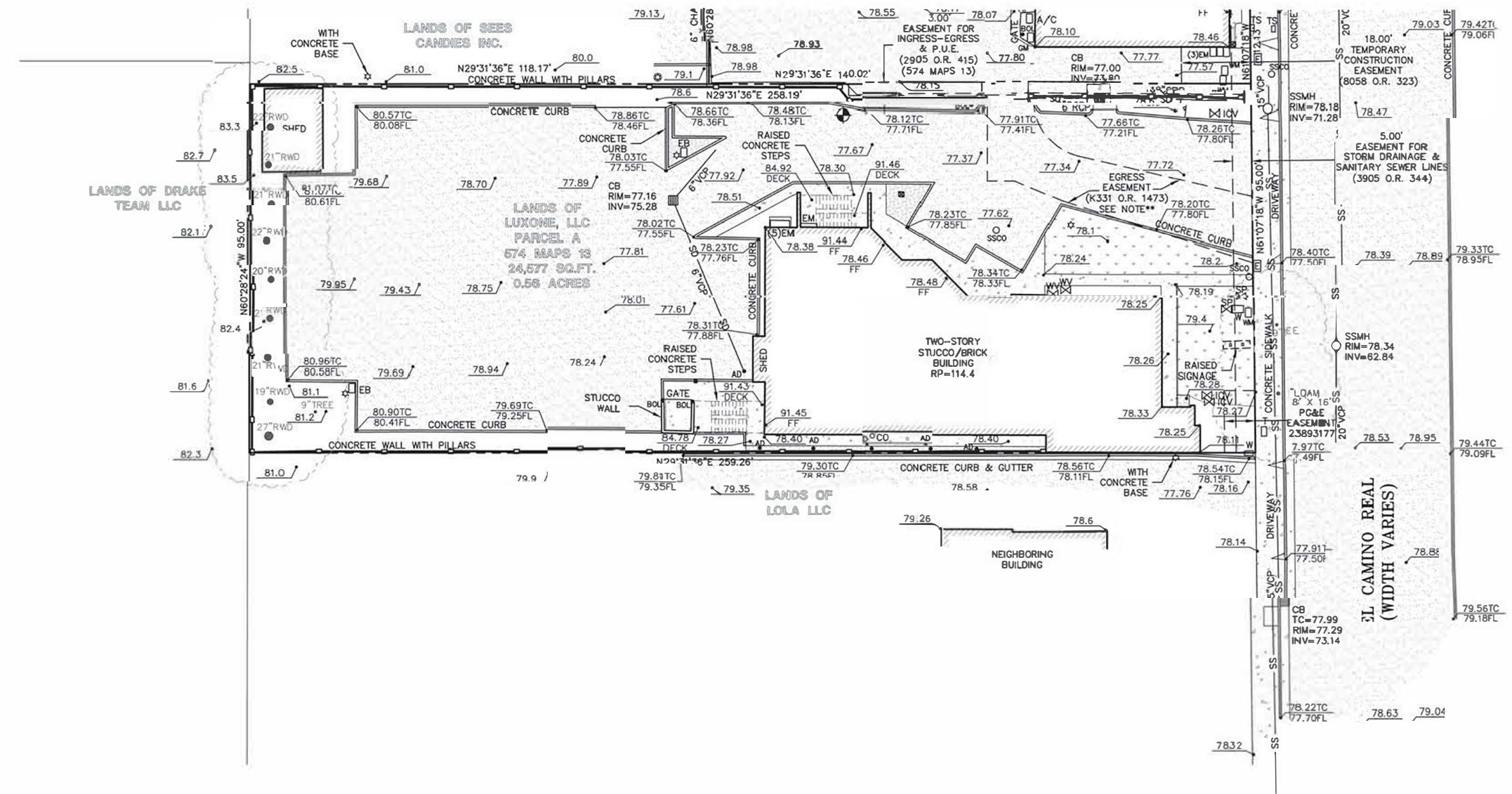


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4856 EL CAMINO REAL  
LOS ALTOS  
CALIFORNIA

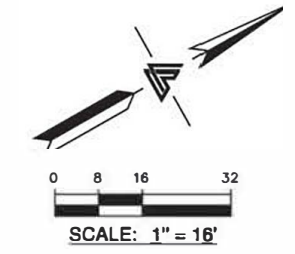
SANTA CLARA COUNTY  
APN: 170-00-029

TOPOGRAPHIC  
SURVEY

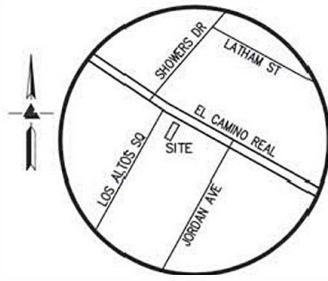


**LEGEND AND NOTES**

---	BOUNDARY LINE	□ EB	ELECTRICAL BOX	○ SSMH	SANITARY SEWER MANHOLE	□ w	WATER VAULT
- - -	EASEMENT	□ EM	ELECTRICAL METER	⊗ SP	SPRINKLER SYSTEM VALVE	xxx.xx	SPOTGRADE
x	FENCE LINE	□ E	ELECTRICAL VAULT	○ sp	STANDPIPE		ASPHALT
---	SANITARY SEWER LINE	FF	FINISH FLOOR	+	STREET LIGHT		CONCRETE
---	STORM DRAIN LINE	FF	FIRE HYDRANT	○	STREET LIGHT W/ CONCRETE BASE		GRAVEL
□ A/C	AIR CONDITIONING UNIT	FL	FLOW LINE	+	STREET SIGN		LAWN
*AD	AREA DRAIN	INV	INVERT	+	TELEPHONE BOX		PAVERS
⊕	BENCHMARK	⊗ I/CV	IRRIGATION CONTROL VALVE	□ T	TOP OF CURB		
*BOL	BOLLARD	LOAM	LIQUID AMBER	□ TS	TRAFFIC SIGNAL BOX		
□ CB	CATCH BASIN	□	PILLAR, SIMILAR	VCP	VITRIFIED CLAY PIPE		
○ CO	CLEAN-OUT BOX	RWD	REDWOOD	□ WM	WATER METER		
CPP	CORRUGATED PLASTIC PIPE	RP	ROOF PEAK	⊗ WV	WATER VALVE		
		○ SSCO	SANITARY SEWER CLEAN-OUT				



PG&E EASEMENT / MT	
NEW TR 05-08-11	
TREE UPGRADE / CA	
REVISIONS	BY
JOB NO: 2160409	
DATE: 5-16-16	
SCALE: 1" = 16'	
FIELD BY: EH	
DRAWN BY: DB	
SHEET NO:	



VICINITY MAP  
NO SCALE

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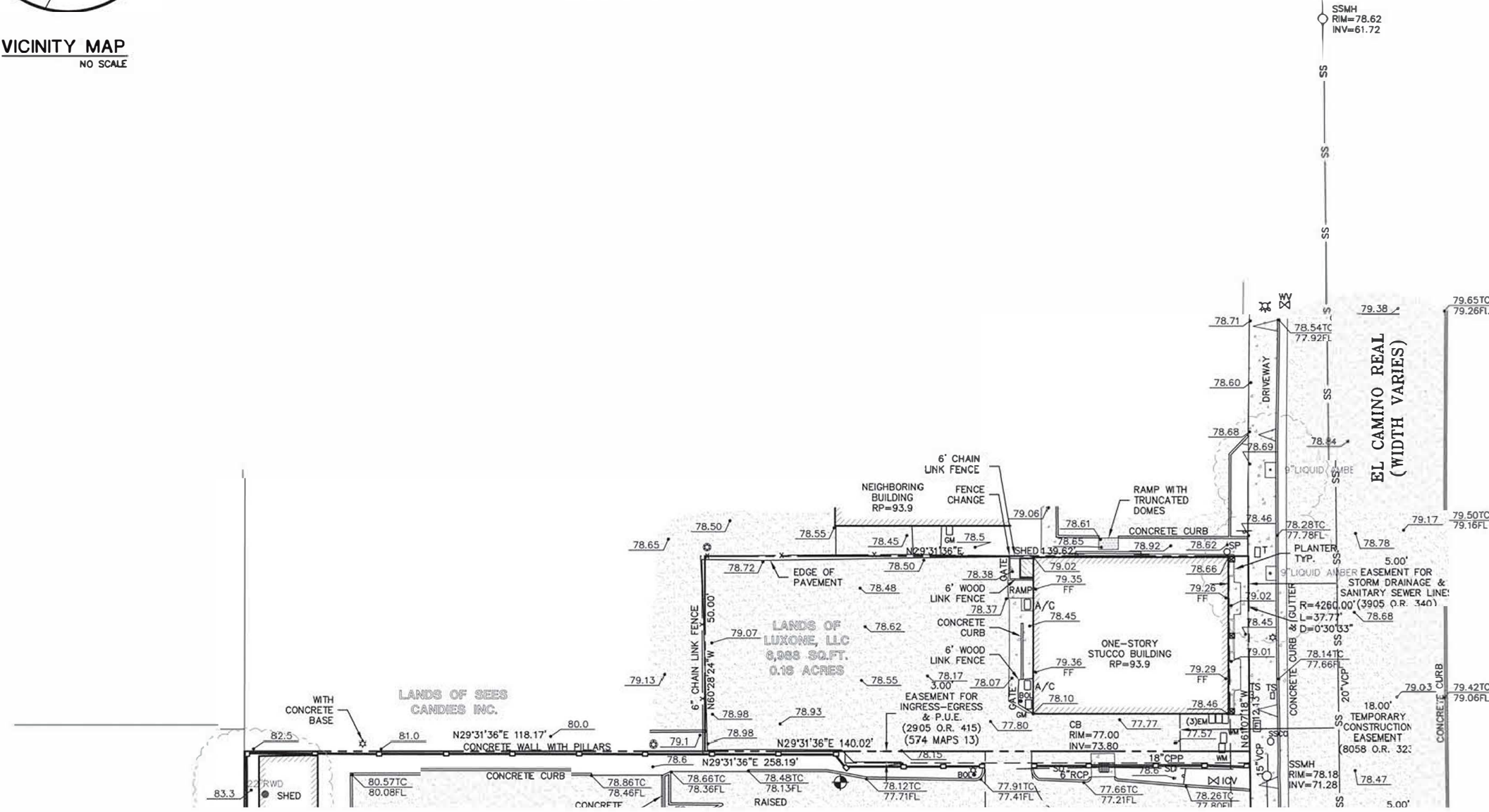
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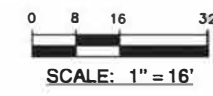
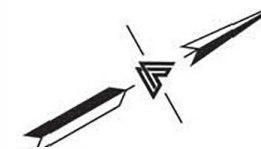
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