



**CITY OF SOUTH PASADENA  
PLANNING COMMISSION**

**AGENDA  
REGULAR MEETING  
TUESDAY, APRIL 9, 2024 AT 6:30 P.M.**

**AMEDEE O. "DICK" RICHARDS JR. COUNCIL CHAMBERS  
1424 MISSION STREET, SOUTH PASADENA, CA 91030**

**South Pasadena Planning Commission Statement of Civility**

*As your appointed governing board we will treat each other, members of the public, and city employees with patience, civility and courtesy as a model of the same behavior we wish to reflect in South Pasadena for the conduct of all city business and community participation. The decisions made tonight will be for the benefit of the South Pasadena community and not for personal gain.*

**NOTICE ON PUBLIC PARTICIPATION & ACCESSIBILITY**

The South Pasadena Planning Commission Meeting will be conducted in-person from the Amedee O. "Dick" Richards, Jr. Council Chambers, located at 1424 Mission Street, South Pasadena, CA 91030.

The Meeting will be available:

- In Person – Council Chambers, 1424 Mission Street, South Pasadena
- Via Zoom: <https://us02web.zoom.us/j/83530439651> **Meeting ID: 8353 043 9651**

To maximize public safety while still maintaining transparency and public access, members of the public can observe the meeting via Zoom in the following methods below.

- Go to the Zoom website, <https://Zoom.us/join> and enter the Zoom meeting information; or
- Click on the following unique Zoom meeting link:  
<https://us02web.zoom.us/j/83530439651>

- CALL TO ORDER:** Chair Lisa Padilla
- ROLL CALL:** Chair Lisa Padilla  
Vice-Chair Amitabh Barthakur  
Commissioner Jason Claypool  
Commissioner Laura Dahl  
Commissioner Mark Gallatin
- COUNCIL LIAISON:** Mayor Pro Tem Jack Donovan

**APPROVAL OF AGENDA**  
Majority vote of the Commission to proceed with Commission business.

**DISCLOSURE OF SITE VISITS AND EX-PARTE CONTACTS**  
Disclosure by Commissioners of site visits and ex-parte contact for items on the agenda.

**PUBLIC COMMENT GUIDELINES** (Public Comments are limited to 3 minutes)

The Planning Commission welcomes public input. If you would like to comment on an agenda item, members of the public may participate by one of the following options:

Option 1:  
Participate in-person at the Council Chambers, 1424 Mission Street, South Pasadena.

Option 2:  
Participants will be able to “raise their hand” using the Zoom icon during the meeting, and they will have their microphone un-muted during comment portions of the agenda to speak for up to 3 minutes per item.

Option 3:  
Email public comment(s) to [PlanningComments@southpasadenaca.gov](mailto:PlanningComments@southpasadenaca.gov). Public Comments received in writing will not be read aloud at the meeting, but will be part of the meeting record. Written public comments will be uploaded online for public viewing under Additional Documents. There is no word limit on emailed Public Comment(s). Please make sure to indicate:

- 1) Name (optional), and
- 2) Agenda item you are submitting public comment on, and
- 3) Submit by no later than 12:00 p.m., on the day of the Planning Commission meeting.

NOTE: Pursuant to State law, the Planning Commission may not discuss or take action on issues not on the meeting agenda, except that members of the Planning Commission or staff may briefly respond to statements made or questions posed by persons exercising public testimony rights (Government Code Section 54954.2). Staff may be asked to follow up on such items.

**PUBLIC COMMENT**

- 1. **Public Comment – General (Non-Agenda Items)**

**CONSENT CALENDAR ITEM**

- 2. **Minutes from the Regular Meeting of March 12, 2024**

**PUBLIC HEARING – CONTINUED ITEM**

- 3. **Project No. 2500-HDP/DRX/VAR/PM/TRE** – The proposed project is for a Hillside Development Permit (HDP) and Design Review Permit (DRX) for the construction of a new 3,214-square-foot, two-story, single-family dwelling along with a Parcel Merger (PM) application of the two existing lots within the Southwest Monterey Hills area, located at 4931 Harriman Avenue (APN: 5312-016-016 & 5312-016-017). The project includes two Variance (VAR) requests: 1) for a side yard setback of five feet in lieu of required seven feet and six inches, and 2) for an attached garage in front of the main structure. The project includes a Tree Removal Permit (TRE) for the removal four (4) trees. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).

Recommendation:  
Staff recommends that the Planning Commission continue this item to a future meeting date to be determined.

**PUBLIC HEARING**

- 4. **Project No. 2571-DRX/HDP/VAR/TRP** – A request for Design Review and Hillside Development Permits to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant property located on Peterson Avenue (APN: 5308-031-042). The project site is located within the Southwest

Monterey Hills area. The project includes two Variance requests: 1) for building height exceeds the maximum height of 24 feet, and 2) Downhill building walls requirements and a Tree Removal Permit for the proposed removal of two trees. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).

Recommendation:

Staff recommends that the Planning Commission adopt a Resolution taking the following actions:

1. Finding the project exempt from California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section 15303 (Class 3).
  2. Approve Project No. 2571-DRX/HDP/VAR/TRP, subject to the recommended conditions of approval.
5. **Project Nos. PLR24-0002/CUP24-0001/DRX24-0004** – A request for a Conditional Use Permit for a proposed restaurant and accessory use to serve beer and wine for on-site sale and consumption (Type 41 ABC license) at 702 Fremont Avenue (APN: 5315-002-012). The project includes an Administrative Use Permit for the proposed outdoor dining in conjunction with the restaurant and a Design Review Permit for the proposed wall sign. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).

Recommendation:

Staff recommends that the Planning Commission adopt a Resolution taking the following actions:

1. Finding the project exempt from California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section 15303 (Class 3).
2. Approve Project Nos. PLR24-0002/CUP24-0001/DRX24-0004, subject to the recommended conditions of approval.

<b>ADMINISTRATION</b>
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6. **Comments from City Council Liaison**
7. **Comments from Planning Commissioners**
8. **Comments from Staff**

**ADJOURNMENT**

9. **Adjourn to the Regular Planning Commission meeting scheduled for May 14, 2024.**

**PUBLIC ACCESS TO AGENDA DOCUMENTS AND BROADCASTING OF MEETINGS**

Planning Commission meeting agenda packets are available online at the City website: <https://www.southpasadenaca.gov/government/boards-commissions/planning-commission/test-planning-commission-agendas-minutes-copy>

**AGENDA NOTIFICATION SUBSCRIPTION**

Individuals can be placed on an email notification list to receive forthcoming agendas by emailing [CityClerk@southpasadenaca.gov](mailto:CityClerk@southpasadenaca.gov) or calling the City Clerk's Division at (626) 403-7230.

**ACCOMMODATIONS**



The City of South Pasadena wishes to make all of its public meetings accessible to the public. If special assistance is needed to participate in this meeting, please contact the City Clerk's Division at (626) 403-7230. Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities. Notification at least 48 hours prior to the meeting will assist staff in assuring that reasonable arrangements can be made to provide accessibility to the meeting (28 CFR 35.102-35.104 ADA Title II).

*I declare under penalty of perjury that I posted this notice of agenda on the bulletin board in the courtyard of City Hall at 1414 Mission Street, South Pasadena, CA 91030, and on the City's website as required by law.*

4/4/2024

Date

Robert (Dean) Flores, Senior Planner



**CITY OF SOUTH PASADENA  
Planning Commission  
Meeting Minutes  
Tuesday, March 12, 2024, 6:30 PM  
Amedee O. "Dick" Richards Jr. Council Chambers  
1424 Mission Street, South Pasadena, CA 91030**

**CALL TO ORDER:**

A Regular Meeting of the South Pasadena Planning Commission was called to order by Chair Padilla on Tuesday, March 12, 2024 at 6:31 p.m. The meeting was held at 1424 Mission Street, South Pasadena, California.

**ROLL CALL:**

**Present:** Chair: Lisa Padilla  
Commissioners: Jason Claypool, Laura Dahl, Mark Gallatin

**Absent:** Vice-Chair: Amitabh Barthakur

**Council Liaison:** Mayor Pro Tem: Jack Donovan

**City Staff**

**Present:** Stephanie Cao, Assistant City Attorney  
Alison Becker, Deputy Community Development Director  
Matt Chang, Planning Manager  
Dean Flores, Senior Planner  
Sandra Robles, Associate Planner  
Lillian Estrada, Administrative Secretary

**APPROVAL OF AGENDA:**

Approved, 4-0.

**DISCLOSURE OF SITE VISITS AND EX-PARTE CONTACTS:**

Commissioner Dahl and Chair Padilla drove by Agenda Item 5 at 2089 Hanscom Drive.

**PUBLIC COMMENT:**

1. **Public Comment – General (Non-Agenda Items)**  
None.

**CONSENT CALENDAR ITEM:**

**2. Minutes from the Regular Meeting of February 13, 2024**

**Approved, 4-0**, with the suggested corrections and clarifications recommended by Commissioner Gallatin and Commissioner Claypool.

**PUBLIC HEARING – CONTINUED ITEM:**

- 3. Project No. 2500-HDP/DRX/VAR/PM/TRE** – The proposed project is for a Hillside Development Permit (HDP) and Design Review Permit (DRX) for the construction of a new 3,214 square-foot, two-story, single-family dwelling along with a Parcel Merger (PM) application of the two existing lots within the Southwest Monterey Hills area, located at 4931 Harriman Avenue (APN: 5312-016-016 & 5312-016-017). The project includes two Variance (VAR) requests: 1) for a side yard setback of five feet in lieu of required seven feet and six inches, and 2) for an attached garage in front of the main structure. The project includes a Tree Removal Permit (TRE) for the removal of four (4) trees. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).

**Recommendation:**

Staff recommends that the Planning Commission continue this item to the April 9, 2024 Planning Commission meeting.

**Commissioner Discussion:**

Commissioner Dahl directed Staff to notify the neighbors and anyone who provided public comments about the project when it was initially presented of the continuance date.

**Decision:**

Commissioner Gallatin moved, seconded by Commissioner Dahl, to continue this item to the regularly scheduled Planning Commission meeting on April 9, 2024.

Chair Padilla directed Staff to call the Roll:

Commissioner Claypool	Yes
Commissioner Gallatin	Yes
Commissioner Dahl	Yes
Vice-Chair Barthakur	Absent
Chair Padilla	Yes

**Motion carried, 4-0.**

## **DISCUSSION**

### **4. Proposed Inclusionary Housing Ordinance In-lieu Fee**

#### **Recommendation:**

Staff recommends the Planning Commission review the analysis prepared by the City's consultant and recommend that the City Council adopt a fee resolution.

#### **Staff Presentation:**

Senior Planner Flores provided a short background of the project and introduced City's consultant Julie Cooper of Economic & Planning Systems, Inc. (EPS) who gave a PowerPoint presentation.

#### **Questions for Staff:**

The Commissioners asked several questions, including, but not limited to, clarifications in the April 2022 Planning Commission Staff Report; the number of projects currently subject to the IHO requirement; comparison of the proposed fee to the fee amounts of other cities; the annual review requirement; indexing the in-lieu fee; fee waivers; the growth capital requirement impact fee; the type of account the IHO funds are deposited in; clarification of the findings in the feasibility analysis between rental units vs. for sale units; the choice of prototypes modeled for the report statistics; the assumed land costs; the timeline for the creation of the affordable housing fund; and where the new fees would be channeled.

#### **Public Comments:**

Josh Albrektson (via Zoom), resident, spoke about the IHO and the feasibility study conducted by the City's consultant.

#### **Commissioner Discussion:**

Planning Manager Chang acknowledged that it has been two (2) years since Staff brought this item before the Commission and said the purpose of this item was for the Staff and Consultant to refresh the Commission on the updated ordinance and the new study prepared by the Consultant. Staff encouraged the Commission to provide comments or suggestions for Staff to incorporate into Staff Report which will be presented in a formal recommendation to the City Council.

The Commissioners expressed support for having an average fee and agreed that an index should be added.

Planning Manager Chang appreciated the Commission's input and will keep the Commission informed of the future City Council date where this item will be considered.



Chair Padilla thanked the public for their comments provided in writing and on Zoom.

## **PUBLIC HEARING**

5. **Project No. 2461 HDP/DRX/VAR** – A request for a Hillside Development Permit (HDP) and Design Review Permit (DRX) for a 234 square-foot first-story addition and a 605 square-foot second-story addition to an existing 1,990 square-foot single-family dwelling located at 2089 Hanscom Drive (APN: 5308-022-010). The project includes a raised deck, a one-car garage, and a carport. The request also includes a Variance (VAR) for a fence, located within the front yard setback, exceeding three (3) feet in height. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15301, Class 1 (Existing Facilities).

### **Recommendation:**

Staff recommends that the Planning Commission adopt a Resolution taking the following actions:

1. Finding the project exempt from California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section 15301 (Class 1).
2. Approve Project No. 2461 HDP/DRX/VAR, subject to the recommended Conditions of Approval.

### **Staff Presentation:**

Associate Planner Robles provided a PowerPoint presentation.

### **Questions for Staff:**

The Commissioners inquired about a proposed ADU referenced in the site plan and Staff Report; the location of the proposed carport; the requirement that part of the site be remediated to its natural state; and information regarding the impact of the project on existing trees. They also inquired about the preliminary grading and drainage plan; a concern for the public right-of-way; the driveway gate.

### **Applicant's Presentation:**

None.

### **Public Comment:**

Walter Quinn, 2111 Hanscom Drive, expressed his concerns about the project.

### **Applicant's Rebuttal:**

Eric Tsang of Eric Tsang Architects addressed questions regarding the window and door schedule; clarified that the existing house is already a two-story house;

the carport; and the intention behind the proposed roof area; the balcony; the driveway gate and questions regarding exterior lighting.

**The meeting recessed for 10 minutes.**

**Commissioner Discussion:**

The Commissioners engaged in a robust discussion about several substantive issues. The Commissioners determined that additional information was needed, and recommended this item be continued to a future meeting.

**Decision:**

Chair Padilla moved, seconded by Commissioner Gallatin, to reopen the Public Hearing and continue this item to the regularly scheduled Planning Commission meeting on May 14, 2024.

Chair Padilla directed Staff to call the Roll:

Commissioner Claypool	Yes
Commissioner Gallatin	Yes
Commissioner Dahl	Yes
Vice-Chair Barthakur	Absent
Chair Padilla	Yes

**Motion carried, 4-0.**

**ADMINISTRATION**

**6. Comments from City Council Liaison**

None.

**7. Comments from Planning Commissioners**

Commissioner Claypool thanked the Staff for welcoming him to the Commission.

Chair Padilla thanked the Staff, the participants, those providing public comments and the team providing support for running Planning Commission meetings.

**8. Comments from Staff**

Planning Manager Chang spoke about a letter received from California Department of Housing and Community Development (HCD) regarding the Housing Element and reported that it has been posted on the City's webpage. He also spoke about the Community Development Department assessment survey being circulated to the community, residents, and business owners. He encouraged community members to provide their comments and feedback on the Department. The survey will close on March 15, 2024.

**ADJOURNMENT:**

9. **Adjournment to the Regular Planning Commission meeting scheduled on April 9, 2024 at 6:30 pm:**

There being no further matters, Chair Padilla adjourned the meeting at 8:48 p.m.

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Lisa Padilla, Chair



Community Development  
Department

# Memo

DATE: April 9, 2024

TO: Planning Commission

FROM: Angelica Frausto-Lupo, Community Development Director  
Matt Chang, Planning Manager

PREPARED BY: Sandra Robles, Associate Planner

RE: Item No. 3. Project No. 2500-HDP/DRX/VAR/PM/TRE located at  
4931 Harriman Avenue (APN: 5312-016-016 & 5312-016-017)

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This item was continued from the regularly scheduled March 12, 2024, Planning Commission meeting.

Staff is recommending continuing this item to a regularly scheduled Planning Commission meeting, on a date to be determined.



# Planning Commission Agenda Report

ITEM NO. 4

**DATE:** April 9, 2024

**FROM:** Angelica Frausto-Lupo, Community Development Director  
Matt Chang, Planning Manager

**PREPARED BY:** Braulio Madrid, Associate Planner

**SUBJECT:** **Project No. 2571-VAR/HDP/DRX/TRP – A request for a Design Review and Hillside Development Permits to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant property located on Peterson Avenue (APN: 5308-031-042). The project site is located within the Southwest Monterey Hills area. The project includes two Variance requests: 1) for building height exceeding the maximum height of 24 feet, and 2) Downhill building walls requirements and a Tree Removal Permit for the proposed removal of two trees. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).**

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## Recommendation

Staff recommends that the Planning Commission adopt a Resolution (**Attachment 1 - P.C. Resolution with Exhibit “A” – Conditions of Approval**) taking the following actions:

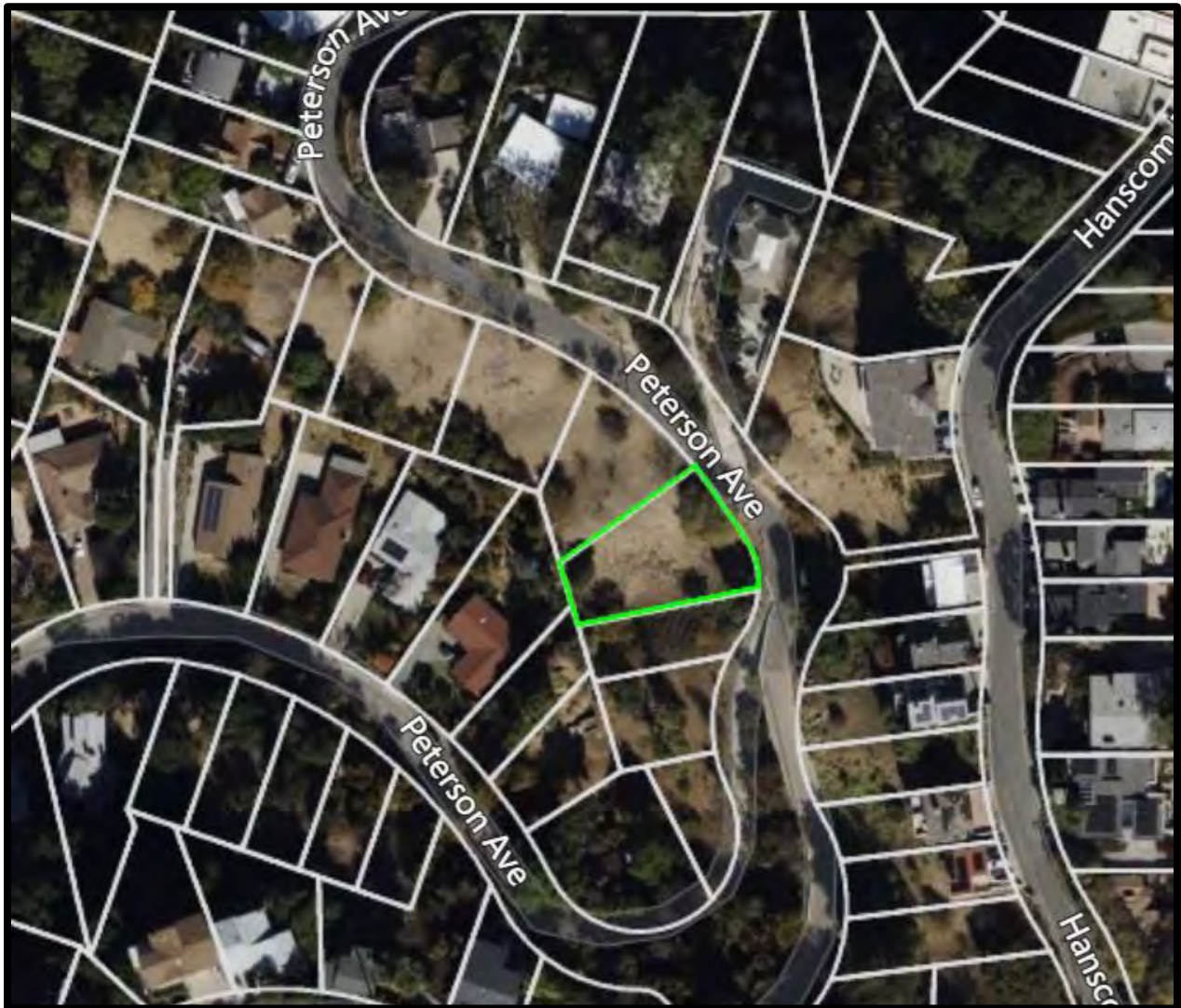
1. Finding the project exempt under the California Environmental Quality Act (CEQA) Guidelines, Section 15303, Class 3 (New Construction or Conversion of Small Structures) which includes construction and location of limited numbers of new, small facilities or structures, including single-family residence.
2. Approve Project No. 2571-VAR/HDP/DRX/TRP, subject to the recommended Conditions of Approval. (**Attachment 1 - P.C. Resolution with Exhibit “A” – Conditions of Approval**)

## Background

The subject site is an 8,755 square-foot, irregularly shaped lot located within the Southwest Monterey Hills area and zoned Residential Low Density (RS). The subject site

is currently vacant and has an average slope of 54.48 percent; slopping upward from the rear property line up to Peterson Ave. The subject property is outlined in green in the aerial below, surrounded by single-family residential uses to the east and west and vacant single family lots to the north and south. **(Figure 1)** The surrounding neighborhood includes a wide variety of architectural styles including but not limited to Minimal Traditional, and Contemporary Modern, amongst others. **(Attachments 2 and 3 - Site and Neighborhood Images)**

**Figure 1: Aerial**



### **Project Description**

The applicant is requesting approvals to construct a new 3,010 square-foot, multi-story, single-family home with an attached 495 square-foot garage on a vacant hillside property

that is accessed from Peterson Ave. The project proposes a minimalist architectural style which pursues natural materials, neutral or natural color pallets, and streamline forms and detailing. The property currently has no assigned property address.

The project includes a two-car garage, 811 square-feet of living space, and a 329 square-foot deck at the top floor; street level from Peterson Avenue. The top floor plan includes the living and dining room as well as the kitchen and a powder room. The 1,174 square-foot middle floor proposes the primary bedroom and a second bedroom, each with private decks. Lastly, the 1,041 square-foot, bottom floor, is designed with two additional bedrooms and an entertainment room connected to a 156 square-foot rear balcony. In total, the home will have four bedrooms, four and a half bathrooms, and two floors with shared living space. **(Attachment 4 - Architectural Drawings)**

Entitlements:

The applicant is requesting the following entitlement applications for the proposed Project No. 2571-VAR/HDP/DRX/TRP:

1. **Two (2) Variances (VAR)** to deviate from development standards to allow the following:
  - a. A Variance to exceed the maximum height of 24 feet (South Pasadena Municipal Code Section 36.340.050 Subsection (C), and;
  - b. A Variance from the downhill building walls requirements (South Pasadena Municipal Code Section 36.340.050 Subsection (C)(5) in conjunction with;
2. **A Hillside Development Permit (HDP)** to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant hillside property.
3. **A Design Review Permit (DRX)** for the review of the design aspects of the proposed development; and,
4. **A Tree Removal Permit (TRP)** for the removal of two (2) trees.

**Project Analysis**

General Plan Consistency

The City has updated its General Plan to be consistent with the 2021-2029 (6<sup>th</sup> Cycle) Housing Element, which included a new Downtown Specific Plan (DTSP) to replace the Mission Street Specific Plan (MSSP), amendments to the Zoning Code and Zoning Map, the creation of a Mixed-Use Overlay District and development standards. The subject property is not slated to be rezoned, but updated General Plan policy goals will apply throughout the City.

The General Plan land use designation of the site was previously Low Density Residential, now recognized as Low Density Neighborhood, which allows for detached single-family units. The proposed project does not involve the addition of another dwelling unit or a subdivision of land; therefore, the project is consistent with the General Plan.

Zoning Code Compliance & Development Standards

The subject property is zoned Residential Low Density (RS), which is intended for the development and anticipated use of a detached, single-family homes. The purpose of the Residential Design Review process is to ensure that the proposed site layout and building design are suitable and compatible with the City’s design standards and guidelines. The proposed project meets the requirements of the City’s adopted Design Guidelines for *New Residential Buildings - Single-Family on Hillside Sites*. Development standards from SPMC Sections 36.340.050—Hillside Project Development Standards; 36.220.040—Residential Zoning District General Development Standards for the RS Zone; and 36.220.050(F)—Development of Small Nonconforming Residential Parcels as required by the section for any single-family hillside development with less than 10,000 square feet, were applied to the project. **Table 1** below, provides a breakdown of the proposed project and its compliance with the applicable development standards listed under SPMC Sections 36.220.040 and 36.220.050(F), regulating residential land uses. Standards not applicable to the hillside project have been omitted from all the tables below.

**Table 1: Residential Low Density (RS) District General Development Standards & Development of Small Nonconforming Residential Parcels**

Standard	Requirement	Proposed
Allowable density	Maximum of 5 du/acre	Complies
Floor Area Ratio (FAR)	35% (3,064 SF max. allowed)	34.3% (3,010 SF)
Landscaping	As required by SPMC 36.330 (Landscaping Standards)	Complies
Lot Coverage	35%, sites larger than 10,000 sq. ft. 50%, sites smaller than 10,000 sq. ft. (4,377 SF max. allowed)	23.3% (2,041 SF)

Hillside Development Permit

Pursuant to SPMC Section 36.340.020, any development on a site with an average slope of 20 percent or greater requires a Hillside Development Permit—the subject site has an average slope of 54.48 percent. The purpose of the Hillside Development Permit is to ensure that developments are designed to preserve the City’s scenic resources, encourage appropriate grading practices, and encourage appropriate design to maintain the hillside in a natural, open character. **Table 2** provides a breakdown of the proposed project and its compliance with SPMC Section 36.340.050—Hillside Project Development Standards, with the exception of the requested variances. Any standards not applicable to the project site have been omitted from the table.



**Table 2: Hillside Project Development Standards**

<b>Standard</b>	<b>Requirement</b>	<b>Proposed</b>
Front Setback Yard	10 ft.	Complies, 10 ft.
Side Setback Yard	10% of lot width, min. of 4 ft., max. of 10 ft. Average Lot Width=70' Side Setback Requirement=7'	Complies, North: 7'-6" South: 7'-6"
Rear Setback Yard	20'	Complies, 78' 6"
Building Height Maximum	Maximum height for structures with a roof pitch of 3:12 or greater is 28 ft. If a roof pitch is less than <b>3:12, the maximum height is 24 ft.</b>	<b>Requires Variance to proposed a maximum building height of 35'-4"</b>
Siting Restrictions	Structures shall not be placed so that they appear silhouetted against the sky when viewed from a public street.	Complies
Placement Below Ridgeline	50 ft. between top of the structure and the top of the ridge or knoll.	Complies, 97' below ridgeline
Height of Lowest Floor Level	Vertical distance between the lowest point where foundation meets grade and the lowest floor line of the structure shall not exceed 6 ft.	Complies, the lower-level vertical distance shall not exceed more than 6' from existing grade.
Downhill Building Walls	No single building wall on the downhill side of a house shall exceed 15 ft. in height above grade. <b>Additional building height on a downhill side may be allowed in 15-foot increments, where each increment is stepped back from the lower wall a minimum of 10 feet.</b>	<b>Requires Variance for 10' Increments from lower wall.</b>
Decks and Balconies	No portion of the walking surface of a deck with visible underpinnings shall exceed a height of six feet above grade. Decks should be integrated into the architecture of the house, not appearing as an "add-on" to the primary building mass.	Complies, no proposed underpins for the balcony.
Driveways	Driveway shall not have a grade steeper than 5% within 10 ft. of the garage or carport entry. Finished grade of driveways shall not exceed an average of 15%.	Complies
Natural State	A minimum of 25% of the lot area plus the percentage figure of the average slope must be	Complies, 72.7% of the project site will

Standard	Requirement	Proposed
	remediated to its natural state in terms of slope and vegetation.	retain the natural state of the existing land.
Required Parking	2 covered parking space and one guest parking.	Complies
Parking Space Dimensions	Uncovered parallel spaces shall be at least 10 feet wide by 24 feet deep	Complies
Grading	Grading on slopes over 30 percent shall be permitted when sufficient technical information has been provided to support the determination that such development would have no negative impacts on the subject property, adjacent properties, or on the safety and welfare of the public. Grading shall utilize landform grading techniques.	Complies, the determination can be supported.

As conditioned, all landscaped areas shall be maintained in a healthy and sound condition at all times, in compliance with the approved preliminary landscape plan and conditions of approval, final landscape plans shall be submitted and approved prior to issuance of building permit. Irrigation systems and their components shall be maintained in a fully functional manner consistent with the originally approved design and the applicable provisions of the SPMC Section 36.330 Landscape Standards.

The maintenance required by Section 36.330 shall include checking, adjusting, and repairing irrigation equipment; resetting automatic controllers; aerating and dethatching turf areas; adding/replenishing mulch, fertilizer, and soil amendments; the replacement of dead or diseased plants; pruning; and weeding all landscaped areas.

Furthermore, new construction projects with an aggregate landscape area equal to or greater than 500 square-feet requiring a building or landscape permit, plan check or design review shall require the submittal and review of a documentation package in compliance with the SPMC Chapter 35 subsection *Article III. Water Efficiency Landscape*, as listed in the conditions of approval.

The overall objectives of the hillside development standards in the Zoning Code include, but are not limited to; protections of views, sensitive terrain alterations, site layout, grading and location of structures, appropriate massing, quality architectural design features and properly designated landscape and landscape features, in which this project has considered and exemplified, even with the request of the two variances described below.

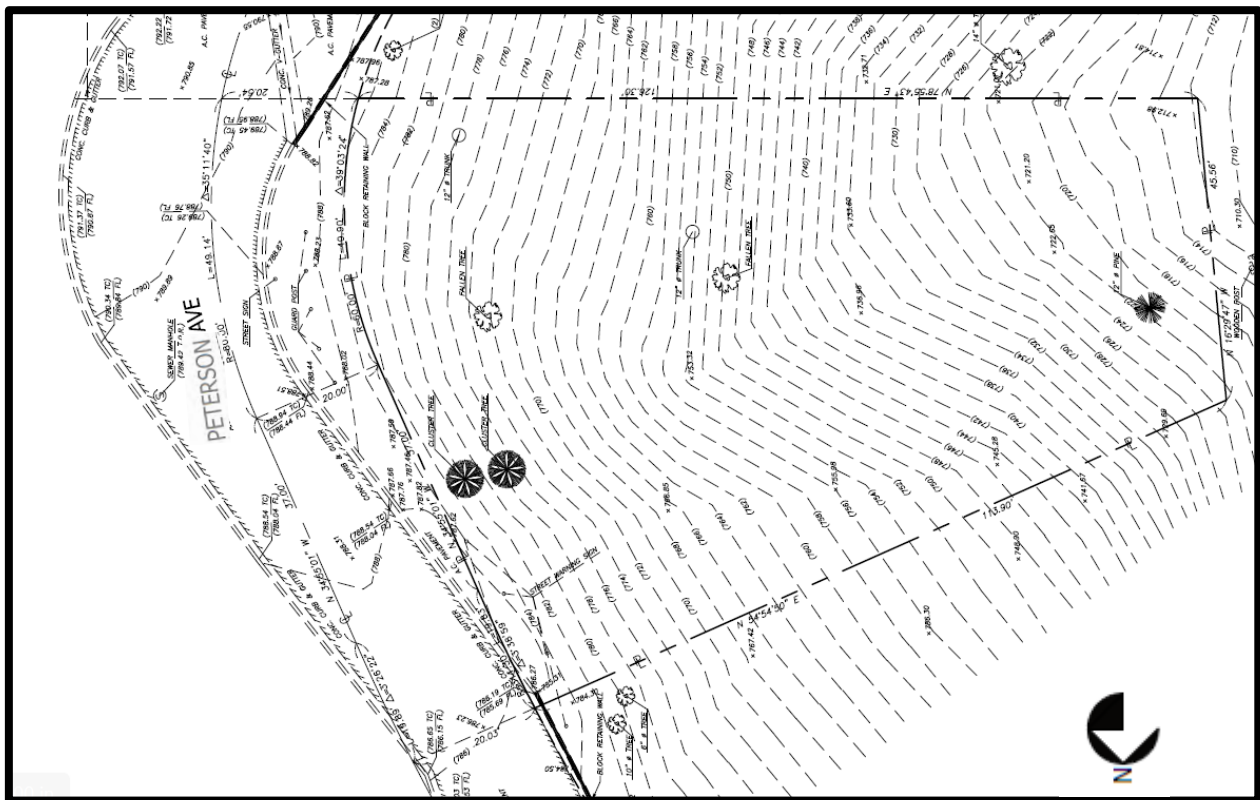
Variance 1: Increased Height Limitations

SPMC, Section 36.340.050(C)— *Height limitations. The maximum height for structures with a roof pitch of 3:12 or greater shall be 28 feet. If a roof pitch is less than 3:12, the maximum height shall be 24 feet.*

Due to the topography of the Southwest Monterey Hills area, each parcel is unique in its characteristics. The subject property downslopes from Peterson Ave. There are special circumstances applicable to the subject property which consists of an average slope of 54.48 percent. The steep terrain of the vacant site is the driving factor for the variance. Since the roof slope is proposed at a 2'/12" slope, the code section places a 24-foot height limitation on structures, measured vertically from existing grading. As encouraged by the design guidelines, the project was designed with a lower pitch, to reduce the overall height. Regardless, a variance would be required as the projection of the building also minimally exceeds the 24- and 28-foot height limitation.

Since the average slope for the property is calculated at 54.48 percent and the required front setbacks and associated driveway improvements pushes the building outward, the project requires a variance to exceed the applicable 24' height limitation for the projection of the building corners due to the existing topography and irregular shape of the property. (Figure 2)

Figure 2: Topography



The project requires a variance for height, as the applicant has carefully designed the project, as required by the SPMC, to fit the natural terrain of the land instead of significantly altering it to fit the project. Building section cuts of the proposed projections

can be referenced below, showing the 24 foot (in yellow) and 28 foot (in orange) height limitations measure from the existing grade level. **(Figure 3A and 3B)** The project proposes to exceed the applicable building height of 24 feet by a maximum 11 feet and 4 inches (proposed building height of 35'-4") or less, depending on the hillside area. Although the project is requesting the variance for exceeding the height limitation, the proposed project is consistent with applicable sections of the General Plan, the City's adopted Design Guidelines for *New Residential Buildings - Single-Family on Hillside Sites*, and the height limit established by the 1983 initiative.

If the project were to meet the height limitations, the proposed house would have to significantly cut into and disturb the existing natural slope of the hillside. The project could also consider obtaining variances for the required 10-foot front yard setback and guest parking space, pushing the project further onto the hillside. However, this would make the development incompatible with other single-family developments in the neighborhood. In fact, due to lack of available street parking in the vicinity, the variance for height is required to maintain the proposed driveway and guest parking for the preservation and enjoyment of the property rights possessed by other property owners in the same vicinity and zoning district.

Due to the existing conditions of the site, the requested increased in the allowable building height will permit the project to maintain the existing terrain mostly undisturbed and maintain the 10' front yard setback and the required driveway improvements, while limiting obstruction of views for the hillside. The development without the approval of the requested variance, will create an unnecessary and involuntary hardship towards the development of the site, due to the unreasonable regulation which makes it impractical to require compliance with the development standards due to the hillsides steep slope.

**Figure 3A: Section 3 and 1**

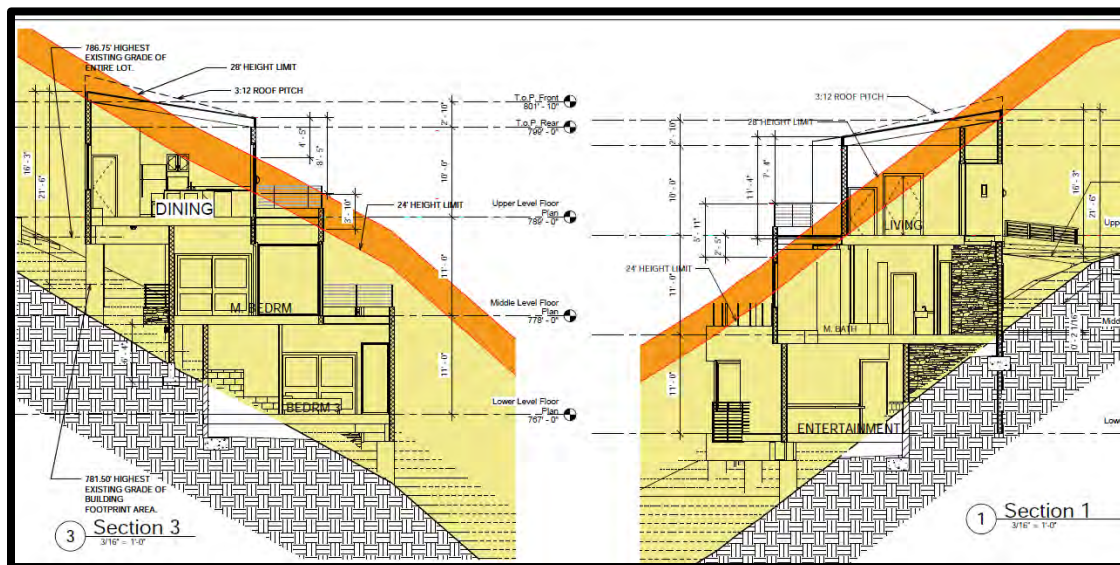
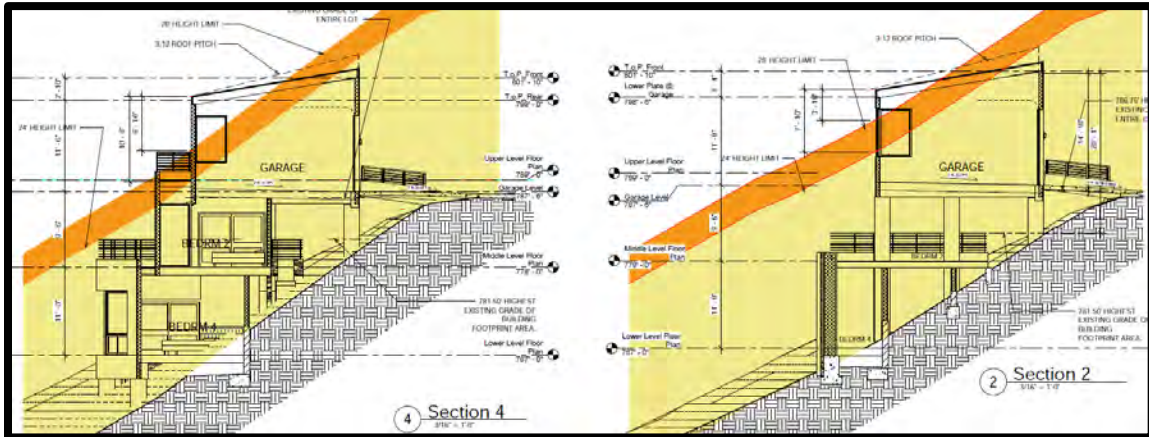


Figure 3B: Section 4 and 2



The project was designed to mimic the existing contours of the hillside and intends to respect the natural state of the land with minimal cuts or modifications to the existing terrain. Other properties in the same vicinity have been designed with similar characteristics such as the required front yard setback, guest parking space, size and massing, and design.

The subject property is surrounded by existing single-family dwellings built prior to the adoption of the City's Hillside Development Standards. Some of the properties exceed the current hillside height limitations. As such, the requested variance to allow the increase in building height will not set a precedent for the existing. (Figure 4 and 5)

Figure 4



**Figure 5**



Thus, the project, with the requested variance for height, would not be materially detrimental to the public convenience, health, interest, safety, or welfare of the City, or injurious to the property or improvements in the vicinity and zoning districts in which the property is located, as it would bring an additional housing opportunity to the city and develop an existing vacant site with minimal impacts to the existing terrain and hillside views.

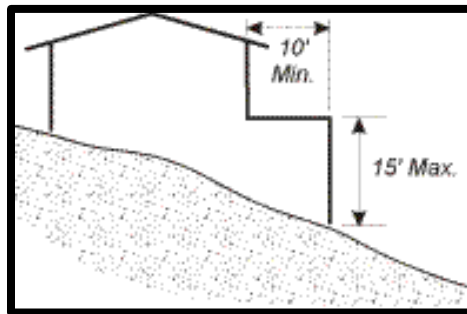
*Variance 2: Waive Downhill Building Wall Requirements*

*SPMC, Section 36.340.050 (C)(5)— Downhill building walls. No single building wall on the downhill side of a house shall exceed 15 feet in height above grade. Additional building height on a downhill side may be allowed in 15-foot increments, where each increment is stepped back from the lower wall a minimum of 10 feet.*

The subject property downslopes from Peterson Ave. There are special circumstances applicable to the subject property which consists of an average slope of 54.48 percent. The steep terrain of the hillside views for the vacant site is the driving factor for the variance. Since the proposed project slopes downhill, the section requires each floor level to not exceed a maximum height of 15 feet for downhill facing building walls, in increment 10 feet minimum. Although all building walls on the downhill side of the house measure under 15 feet in height, the project cannot meet the 10 foot stepped back from the lower building wall requirement.

Due to the topography of the Southwest Monterey Hills area and average property slope of 54.48 percent, the project requires a variance for the 10 foot increment separation requirement between each floor levels' downhill facing walls. The steep terrain and preservation of the hillside views for the vacant site is the driving factor for the variance. In accordance to the SPMC, Section 36.340.050—Hillside Development Project Standards—the downhill building walls must not exceed 15 feet in total height and provide a minimum 10 foot stepped back increment from the lower building wall. **(Figure 6)**

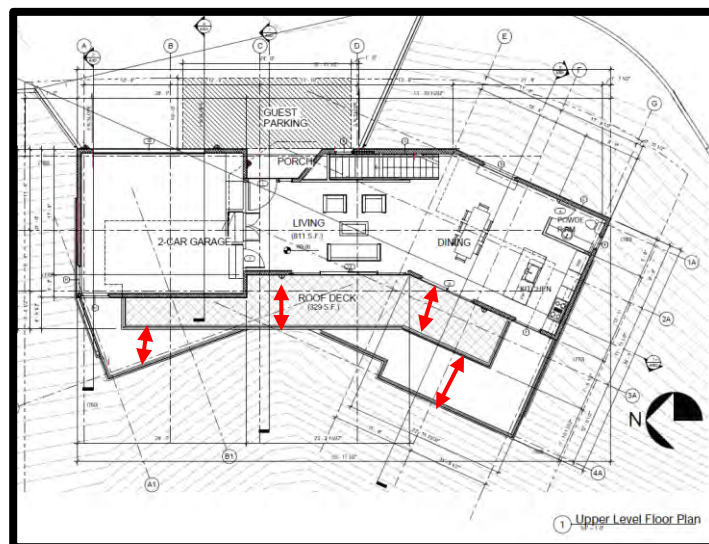
**Figure 6: Height Limit for Downhill Building Wall**



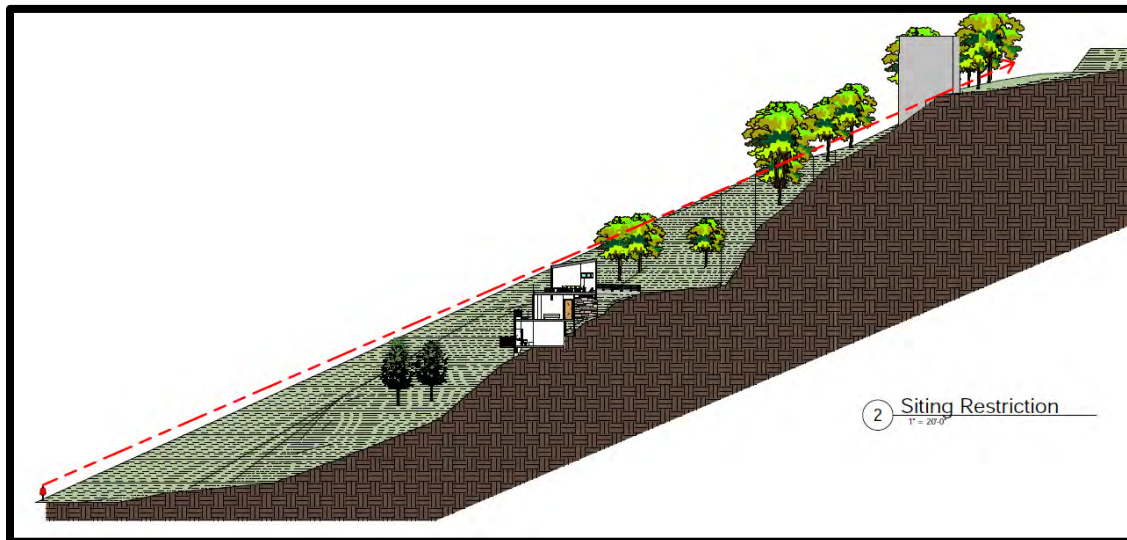
Other parcels in the vicinity do not have the same slope characteristics as the subject property or were developed with downhill walls that exceed 15 feet or without the required 10 foot increments from the lower level downhill facing wall. Each floor level proposes building walls ranging with an 8-foot maximum to no separation between downhill building walls. The red arrows below (**Figure 7**) show the placement of the required 10 foot separation. The granting of the variance for the downhill building wall requirements does not constitute a grant of special privilege inconsistent with the limitations on other properties in the vicinity and in the same zoning district due to the hillside slope and existing conditions of the neighborhood.

If the project were to comply with the 10 foot stepped back from each floor, the proposed house would have to further encroach onto the existing building height limitations, further modify the existing sloping terrain, or potentially propose additional variances for an increase in maximum FAR and siting restrictions against the silhouette of the sky. (**Figure 8**) As proposed, although a variance is requested, the design of the project intentionally provides various breaks in the floor levels through placement and use of various exterior building materials, to alleviate any issues or concerns with obstructing views or project massing.

**Figure 7: Top View of Proposed Project**



**Figure 8: Sitting Restriction**



The project has been designed to fit the existing contour lines of the terrain as required by the SPMC; instead of significantly altering the existing land to fit the project. The subject property is surrounded by existing single-family dwellings built prior to the adoption of the City's Hillside Development Standards. As a result, some of the properties in the vicinity do not meet the downhill building wall requirements. As such, the requested variance to allow the deviation from Subsection 5 of the Downhill Building Wall standard will not set a precedent for the existing neighborhood.

The variance is required for the preservation and enjoyment of the property rights possessed by other property owners in the same vicinity and zoning district and limit the projects obstruction of hillside views. The architectural style of the neighborhood surrounding the project site is mixed with various architectural styles including minimalist architectural designs, such as the proposed. The development would be compatible with the existing aesthetics, character, and scale of the surrounding neighborhood, and considers impacts on neighboring properties.

The development without the approval of the requested variance, will create an unnecessary and involuntary hardship, due to the unreasonable regulation which makes it impractical to require compliance with the development standards due to the hillsides steep slope.

Lastly, the project, with the requested variance for downhill building wall requirements, would not be materially detrimental to the public convenience, health, interest, safety, or welfare of the City, or injurious to the property or improvements in the vicinity and zoning districts in which the property is located, as it would bring an additional housing opportunity to the city and develop an existing vacant site with minimal impacts to the existing terrain and hillside views.



### *Tree Removal Permit*

The applicant has carefully designed the proposed project to minimize the removal of trees, as such, the footprint of the home is narrow and situated along the top portion of the property. Two (2) non-native Chinese Elms trees are proposed for removal. The applicant has provided all necessary documents to the department of Public Works as required by the SPMC. As tentatively approved and illustrated in the landscape plan, the applicant has provided some new replacement trees and will pay the applicable in lieu fee of \$426 per tree that is not installed as part of the requirements of SPMC Section 34.10(a)(5).

The department of Public Works has reviewed the requested tree removal for the site and has provided a tentative approval, granted upon approval of the building permit. **(Attachment 5 and 6 - Preliminary Landscape Plan / Tentative Tree Removal Approval Letter)**

As stated under SPMC Section 34.6(a)(3), *Procedures for Consideration of the Tree Trimming/ Removal Applications*, this section authorizes the commission to provide conditions of approval for the project or recommendations to the approval body, associated with the proposed replacement trees or their placement, referenced in the tentative landscape plan.

### Soils & Grading

The applicant submitted a preliminary geological report of the subject property. **(Attachment 6 – Preliminary Geotechnical Investigation Report)** According to the report, the subject project is feasible from a geotechnical standpoint, provided that the recommendations presented in the report are implemented:

- A. Subsurface Conditions: According to the report, the subject site is undeveloped, consisting mostly of light seasonal grasses and several mature trees. The site is located on a westerly facing slope with gradients generally ranging between 1.2H:1V to 1.8H:1V for a total relief onsite equal to 74 feet. The bedding structure is anticipated to be generally neutral with respect to overall stability of the westerly-descending slope.
- B. Groundwater: According to the report, no seepage or ground water was encountered within any of the test pit excavations to the total depth explored of 12' beneath the surface. Due to the elevation of the site with respect to natural drainage courses, regional ground water is not expected to be a significant factor during construction of the proposed project.
- C. Expansive Soil: According to the report, expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may result in unacceptable settlement or heave of structures or concrete slabs supported on grade. Based on laboratory testing, the upper

foundation soil onsite is expected to have a medium expansion potential (EI=51), as defined in ASTM D4829. This would require verification subsequent to completion of new footing excavations.

- D. Corrosive Soil: According to the report, Ferrous metal pipes should be protected from potential corrosion by bituminous coating, etc. the consultant recommends that all utility pipes be nonmetallic and/or corrosion resistant. Recommendations should be verified by soluble sulfate and corrosion testing of soil samples obtained from specific locations at the completion of rough grading.
- E. Seismic Design Parameters: According to the report, based on the soils encountered in the exploratory borehole within the subject site and with consideration of the geologic units mapped in the area, it is consultant's opinion that the site soil profile corresponds to Site Class C in accordance with Section 1613.2.2 of the California Building Code.
- F. Regional Faulting and Seismic Hazards: There are no mapped active or potentially active faults with surface expression that trend through or are adjacent to the subject property based on the references cited. The site does not lie within a designated Alquist-Priolo Earthquake Fault Zone (CDMG, 2000). According to the Seismic Hazard Zones Map (see Figure 4) published by the State of California, Division of Mines and Geology, Los Angeles Quadrangle (1998), the site is not indicated to lie within a zone of potential seismic liquefaction hazard. Additionally, the site is not indicated to lie within a zone considered to be potentially susceptible to seismically-induced slope failure.
- G. Slope Stability: The bedrock and soil materials onsite will be modeled utilizing ultimate shear strength parameters. The shear strength parameters for the existing bedrock used in the stability analyses were based on laboratory test results of relatively undisturbed soil samples obtained from the onsite material.

The documents reviewed by the City include a topographic map, slope analysis, and preliminary grading plan prepared by a registered professional engineer. The applicant will provide a final grading plan prepared by registered engineer. As required and conditioned, the final grading plan will be approved by the Public Works Department and the Building Division prior to grading permit issuance. As such, the grading work would not impact the safety of the site, adjacent properties, or the general safety and welfare of the public. The applicant is required to submit a draft Construction Management Plan to be reviewed and approved by the Public Works Department to reduce potential construction impacts on nearby residents. **(Attachment 1 – Resolution with Attached Conditions of Approval)**

## **Design Review**

### *Hillside Design Guidelines*

The Hillside Development Design Guidelines in Section 36.340.040 of the SPMC and the City's residential design guidelines for hillside lots apply to the proposed project. To approve the project, the Planning Commission must find that the proposed project is

consistent with City's design requirements. These guidelines require projects to be compatible within the neighborhood context and surrounding architectural characteristics so as not to adversely impact the character of the City. The proposed project met the following guidelines from the City's adopted *Design Guidelines for New Residential Buildings - Single-Family on Hillside Sites*, which state:

1. *New hillside homes or additions and alterations to existing hillside homes should be designed with consideration for the character and scale of the existing development in the vicinity. Alterations to existing hillside homes should be designed with consideration for the character and scale of the existing development in the vicinity.*
2. *Hillside construction could embrace modernism while maintaining the scale and patterns of building placement in the neighborhood.*
3. *Preservation of views from adjoining hillside lots should be carefully considered in the design of a new home or addition to an existing home on a hillside lot.*
4. *Massing should be stepped with the slope to avoid large expanses of tall walls. The wall planes at various levels should be articulated and have a variety of solid and void elements.*
5. *New construction on hillsides should not disregard or significantly alter the existing topography of a site. Further, the requirements put forward in the South Pasadena Zoning Code should be followed. To minimize grading, building designs should step up or down hillsides.*
6. *Each hillside structure should be located in the most accessible, least visually prominent, most geographically stable portion of the site, and at the lowest feasible elevation. Siting structures in the least prominent locations is important on open hillsides where high visibility should be minimized by placing structures so that they will be screened by existing vegetation, depressions in topography, or other natural features.*
7. *Each structure should be located to take advantage of existing vegetation for screening and should include the installation of additional native plant materials to augment existing vegetation, where appropriate.*
8. *The sitting of homes on steep hillside lots tends to pull garages close to the street. Garages at hillside homes should be carefully designed and integrated into the overall design of the residence with articulated details and quality materials.*
9. *Wherever possible, garages should be "straight-on" rather than "side-on" designs. The maximum average grade for driveways set by the Zoning Code is 15%. The maximum slope for ramps to garages or carports is 5% within 10 feet of the garage or carport.*
10. *To reduce the overall height, mass and bulk and avoid adverse visual impacts, roof pitches should be kept to slopes at or below 6:12.*
11. *Encouraged exterior wall finishes with Modern Aesthetic: stucco (sand or smooth finish and half timbering), wood clapboard siding, wood shingles, wood board and batten, brick.*

The placement of the building is consistent with most existing houses in the neighborhood. The proposed house will roughly be an equal distance from the house across the street up on the hill and from its rear neighbor down below. The proposed design terraces the house along the slope to minimize the massing viewed from the top or bottom of the hillside. Additionally, the mid-level's wood siding treatment is intended to break up the continuous stucco material and further modulate the scale of the building viewed from below. The proposed project exemplifies the application of the city's design standards for unique hillside home design, not found in the surrounding neighborhood. Some older properties have been developed with dwellings in the form of a deep rectangular shaped box, extruding from the hillside, with minimal breaks from each floor level or decorative architectural elements.

The surrounding neighborhood includes a mix of large, multi-story homes with a variety of architectural styles. The project is designed with consideration of the character and scale of the existing multi-story residential developments in the vicinity as well as the existing topographic conditions of the site, and future occupants and neighbors. The proposed project uses appropriate materials that complement the eclectic architecture of the surrounding neighborhood. The architectural style of the neighborhood surrounding the project site is mixed with various architectural styles including minimalist architectural designs, same as the proposed. The development would be compatible with the existing aesthetics, character, and scale of the surrounding neighborhood, and considers impacts on neighboring properties.

The proposed use of single-family residential will remain unchanged and the project is consistent with the established residential neighborhood. The scale of the project is appropriate in size, when compared to the surrounding neighborhood and the topography of the land and the configuration of neighboring properties minimizes view impacts. With the exception of the requested variances, the proposed design complies with the City's Hillside Design Guidelines, the Hillside Protection Ordinance, and the SPMC, including but not limited to building mass, scale, respect of the topography, FAR and lot coverage.

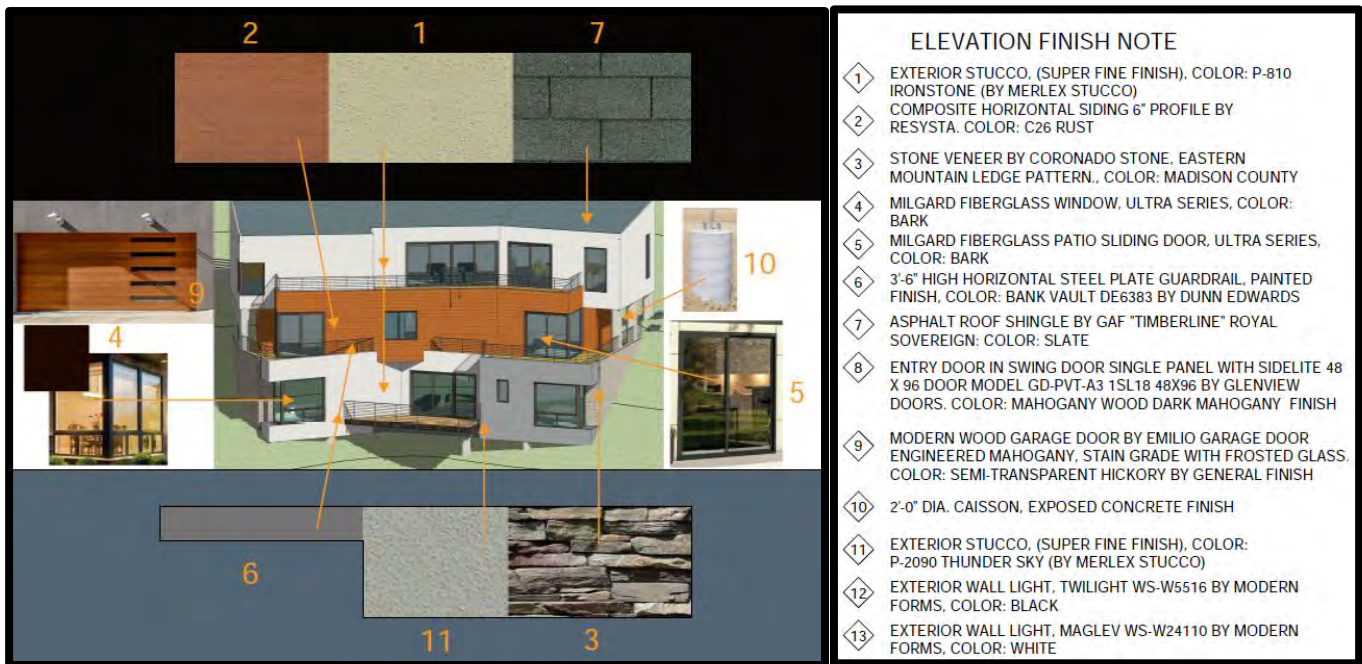
The temporary construction activities would not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards. A construction management plan will be reviewed and approved by staff during the Building and Public Works permitting process.

### *Design Review*

The proposed project has been designed with consideration to its future occupants and neighbors. The proposed development incorporates a minimalist architectural style with; large windows and glass doors facing the rear of the property with minimal fenestration and architectural elements at the front elevation, sleek decks and a balcony, and use of natural materials and neutral color palettes. The architectural features include a wood garage door and proposes windows and doors manufactured by Milgard. The exterior walls will be clad with a combination of super fine finished stucco, stone veneer, and

composite horizontal siding. The project also proposes steel plate guardrails for the decks and balcony and a sloped roof with asphalt roof shingles. **(Figure 9)** As required and conditioned, the final design, materials, and construction documents would be reviewed and approved by the Planning Division and Building Division prior to permit issuance.

**Figure 9: Proposed Materials**



As shown in the front renderings and elevations (**Figure 10 and 11**), the mass and scale of the proposed project, would be well-proportioned and harmonious with the established neighborhoods' street facing facades (**Attachments 2 and 3 - Site and Neighborhood Images**). The overall design of the project would result in an attractive and orderly development as intended by the General Plan and design guidelines and serve as an improvement to the vacant parcel.

**Figure 10: Front Elevation**



**Figure 11: Rendering Viewed from the Top**



Based upon the limited projection and mass of the proposed project and its location, the new development will not interfere with the use and enjoyment of neighboring, existing, or future developments. As conditioned, with the approval for the requested variances, the development will not significantly obstruct views and decrease the project's potential mass, scale, bulk, and overall projection. **(Figure 12 and 13)**

**Figure 12: Rendering from Bottom of the Hillside**



**Figure 13: Proposed Rendering**



### **General Standards for Construction**

The Public Works Department has reviewed this project and recommended Conditions of Approval (**Attachment 1 - P.C. Resolution with Exhibit “A” – Conditions of Approval**) to mitigate any potential construction impact during construction. The recommended conditions including, but not limited to, requiring the applicant to submit a construction management plan, advanced notice for any street closures, and prohibiting overnight storage of materials or equipment within the public right-of-way. The temporary construction activities would not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards. Since the proposed project is located within the Southwest Monterey Hills area, an additional condition was added to ensure that the applicant abides by construction regulations.

### **Findings**

In order to approve the project, the Planning Commission shall find that the design and the proposed layout comply with the findings for a Variance, Hillside Development Permit, and Design Review as stipulated in the South Pasadena Municipal Code. All findings for the proposed project may be found within the draft Planning Commission resolution. (**Attachment 1 - P.C. Resolution with Exhibit “A” – Conditions of Approval**)

## **Environmental Analysis**

This item is exempt from California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section 15303, Class 3 – New Construction or Conversion of Small Structures. Class 3 exemption includes the construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. Class 3 exemption includes, but is not limited to: one single-family residence, or a second dwelling unit in a residential zone; in urbanized areas, up to three single-family residences may be constructed or converted under this exemption. The project will not have a significant effect on the environment because the project includes one single-family residence, the project is in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan; and is not located in an environmentally sensitive area.

## **Alternatives to Consider**

Planning Commission may also consider the following alternatives to this recommendation:

1. The Planning Commission may approve the project with or without modified/added conditions;
2. The Planning Commission may continue the project to address comments discussed; or
3. The Planning Commission may deny the project.

## **Public Notification**

Hearing notices were sent to all properties within a 300-foot radius of the property and to all properties located within the Southwest Monterey Hills Notification Area on March 28, 2024. A Public Hearing Notice was published on March 29, 2024 in the South Pasadena Review. In addition, the public was made aware that this item was to be considered at a public hearing by virtue of its inclusion on the legally publicly noticed agenda, posting of the same agenda and reports on the City's website.

## **Public Comments**

At the time of writing this report, staff has not receive public comments regarding the proposed project.



### **Next Steps**

If the Planning Commission approves the project, a 15-day appeal period will commence in which any person affected by the decision may appeal the decision for a public hearing by the City Council. Should there be no appeals during this 15-day period, the applicant may proceed through the Plan Check Process with the Building Division and staff will review the construction plans to ensure that all conditions are satisfied.

### **Attachments:**

1. P.C. Resolution with Exhibit "A" – Conditions of Approval
2. Site Images
3. Neighborhood Images
4. Architectural Plans & Renderings
5. Preliminary Landscape Plans
6. Tentative Tree Removal Approval
7. Preliminary Geotechnical Investigation Report

## **ATTACHMENT 1**

P.C. Resolution with Exhibit “A” – Conditions of Approval

**EXHIBIT "A"**  
**CONDITIONS OF APPROVAL**  
**PROJECT NO. 2571-VAR/HDP/DRX/TRP**  
**Peterson Avenue (APN: 5308-031-042)**

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**The following approvals are granted as described below and as shown on the development plans submitted to and approved by the Planning Commission on April 9, 2024:**

1. Two (2) Variances (VAR) to deviate from development standards to allow the following:
  - a. A Variance to exceed the maximum height of 24 feet (South Pasadena Municipal Code Section 36.340.050 Subsection (C), and;
  - b. a Variance from the downhill building walls requirements (South Pasadena Municipal Code Section 36.340.050 Subsection (C)(5) in conjunction with;
2. A Hillside Development Permit (HDP) to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant hillside property.
3. A Design Review Permit (DRX) for the review of the design aspects of the proposed development; and,
4. A Tree Removal Permit (TRP) for the removal of two (2) trees.

*Note: As a convenience to the applicant, the development requirements from applicable Departments/Agencies are listed herein. These requirements list what the applicant will be required to comply with in order to receive a Building Permit, a Certificate of Occupancy, or other Department-issued entitlement.*

**PLANNING DIVISION:**

- P1. Approval by the Planning Commission does not constitute a building permit or authorization to begin any construction. An appropriate permit issued by the South Pasadena Building Division must be obtained prior to construction, enlargement, relocation, conversion or demolition of any building or structure on any of the properties involved with the project.
- P2. This Design Review and Hillside Development Permit and Variance and all rights hereunder shall terminate within twelve (12) months of the effective date of the Design Review and Hillside Development Permit unless otherwise conditioned and/or unless action is taken to secure Building Permits and maintain active Building Permits with the Building Division beginning with the submittal of the plans for Plan Check review.
- P3. All other requirements of any law, ordinance, or regulation of the State of California, City of South Pasadena, and any other government entity shall be complied with.
- P4. Compliance with and execution of all conditions listed herein shall be necessary prior to obtaining any occupancy inspection clearance and/or prior to obtaining any occupancy clearance.
- P5. Any changes to the proposed project shall be submitted for review and approval to the Planning Division.

- P6. The applicant and each successor in interest to the property which is the subject of this project approval, shall defend, indemnify and hold harmless the City of South Pasadena and its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void or annul any approval of the City, City Council or Planning Commission concerning this approval. In the event of any claim or lawsuit, the applicant and/or successor shall submit a deposit in such amount as the City reasonably determines necessary to protect the City from exposure to fees, costs or liability with respect to such claim or lawsuit.
- P7. The construction site and the surrounding area shall be kept free of all loose materials resembling trash and debris in excess of that material used for immediate construction purposes. Such excess may include, but is not limited to: the accumulation of debris, garbage, lumber, scrap metal, concrete, asphalt, piles of earth, salvage materials, abandoned or discarded furniture, appliances or other household fixtures.
- P8. The applicant shall sign the Southwest Monterey Hills Construction Regulations Affidavit prior to submitting a Building Permit Application with the Building Division.
- P9. The hours of construction shall be limited to the following: 8:00 am and 7:00 pm Monday through Friday, 9:00 am and 7:00 pm Saturday, and construction on Sundays limited to 10:00 am to 6:00 pm.
- P10. During construction, the clearing, grading, earth moving, or excavation operations that cause excessive fugitive dust emissions shall be controlled by regular water or other dust preventive measures using the following procedures:
- a. All material excavated or graded shall be sufficiently watered to prevent excessive amounts of dust. Watering shall occur at least twice daily with complete coverage, preferable in the late morning and after work is done for the day;
  - b. All material transported on-site or off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust;
  - c. The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized so as to prevent excessive amounts of dust; and
  - d. Visible dust beyond the property line emanating from the project shall be prevented to the maximum extent feasible.
- P11. The applicant shall submit final landscape and irrigation plans showing compliance with state law and the City's Water Efficient Landscape Ordinance (SMPC Section 35.50), for approval by the Community Development Director. The final landscape plans shall provide, but not limited, to the following:
- a. Screening of all above ground equipment from public view.
  - b. Incorporating Tree Removal Permit (TRP) conditions, as recommended by the Department of Public Works.
  - c. Using California Native plants.
- P12. The applicant shall install all landscaping and irrigation per the approved final landscape plans pursuant to the City's Water Efficient Landscape Ordinance (SPMC Section 35.50). The applicant shall provide documentations as required under SPMC Section 35.50, which shall include:

- a. A Certification of Completion certifying that landscape and irrigation have been installed per the approved final landscape plans and complies with the City Water Efficient Landscape Ordinance.
  - b. A Landscape Irrigation Audit Report from a certified landscape irrigation auditor shall be submitted to the City. The landscape irrigation audit shall not be conducted by the person who designed the landscape plans or installed the landscape irrigation.
- P13. The construction plan shall show that all lighting on the site will be directed downward and shielded to prevent off-lighting on adjacent properties.
- P14. A construction sign with contact information for the contractor shall be clearly posted on-site during construction.
- P15. Any proposed revision to the approved plans shall require review and approval by the Community Development Department prior to construction. The Community Development Department may refer the proposed revision to the Planning Commission or Planning Commission Chair for approval.

**BUILDING DIVISION:**

- B1. The second sheet of building plans is to list all conditions of approval and to include a copy of the Planning Decision letter. This information shall be incorporated into the plans prior to the first submittal for plan check.
- B2. Plans prepared in compliance with the code in effect shall be submitted to Building Division for review prior to permit issuance.
- B3. Prior to the application of a building or grading permit, a preliminary Geotechnical report that specifically identifies and proposes mitigation measures for any soils or geological problems that may affect site stability or structural integrity shall be approved by the Building Official or his/her designee. The applicant shall reimburse the City for all costs incurred to have the project soils report evaluated by an independent, third-party, peer-level soils and /or geological engineer. Approval letter of the geotechnical report review shall be copied and pasted on the first sheet of building and grading plans.
- B4. School Developmental Fees shall be paid to the School District prior to the issuance of the building permit.
- B5. Fees shall be paid to the County of Los Angeles Sanitation District prior to issuance of the building permit.
- B6. Park Impact Fee to be paid at the time of permit issuance.
- B7. Per Chapter 16A of the City of South Pasadena Municipal Code, Growth fee to be paid at the time of permit issuance.
- B8. A separate address required. An application to assign address and unit numbers shall be filed with Public Works Department prior to plan check submittal.

- B9. In accordance with paragraph 5538(b) of the California Business and Professions Code, plans are to be prepared and stamped by a licensed architect.
- B10. Structural calculations prepared under the direction of an architect, civil engineer or structural engineer shall be provided.
- B11. The lateral-force-resisting system for a new hillside building at and below the base level diaphragm on slopes steeper than one unit vertical in three units horizontal (33.3%) comply with Section 1613.6 of the Los Angeles Building Code.
- B12. The property shall be surveyed, and the boundaries marked by a land surveyor licensed by the State of California.
- B13. A geotechnical and soils investigation report is required, the duties of the soils engineer of record, as indicated on the first sheet of the approved plans, shall include the following:
  - a. Observation of cleared areas and benches prepared to receive fill;
  - b. Observation of the removal of all unsuitable soils and other materials;
  - c. The approval of soils to be used as fill material;
  - d. Inspection of compaction and placement of fill;
  - e. The testing of compacted fills; and
  - f. The inspection of review of drainage devices.
- B14. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by another soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits and has accepted by Building Division, a new Preliminary Soils and/or Geotechnical Investigation.
- B15. Project shall incorporate recommendations of the final grading and soils report.
- B16. A grading and drainage plan shall be approved prior to issuance of the building permit. The grading and drainage plan shall indicate how all storm drainage including contributory drainage from adjacent lots is carried to the public way or drainage structure approved to receive storm water.
- B17. Stormwater Application (MS4-1 Form) completed by Engineer of Record shall be copied on the first sheet of Grading Plans. The form can be found at the following link:  
<https://www.dropbox.com/s/5p4yf08beipzyot/SP%20MS4-1%20LID%20Determination%20Form.pdf?dl=0>

- B18. Foundation inspection will not be made until the excavation has been surveyed and the setbacks determined to be in accordance with the approved plans by a land surveyor licensed by the State of California. THIS NOTE IS TO BE PLACED ON THE FOUNDATION PLAN IN A PROMINENT LOCATION.
- B19. Project shall comply with the CalGreen Residential mandatory requirements.
- B20. No form work or other construction materials will be permitted to encroach into adjacent property without written approval of the affected property owner.
- B21. When required by Fire Department, all fire sprinkler hangers must be designed, and their location approved by an engineer or an architect. Calculations must be provided indicating that the hangers are designed to carry the tributary weight of the water filled pipe plus a 250-pound point load. A plan indicating this information must be stamped by the engineer or the architect and submitted for approval prior to issuance of the building permit. A separate permit is required for Fire Sprinklers.
- B22. Separate plan review and permit is required for fire sprinklers.

**PUBLIC WORKS DEPARTMENT:**

- PW1. The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting in the need for the project to be redesigned.
- PW2. The applicant shall pay all applicable City and LA County fees, including Public Works Department plan review fee and permit fees per the current adopted Master Fee Schedule which can be found on the City's website. This includes all costs incurred by the City and the Public Works Department for the use of professional services or consultants in the review, investigation, and/or plan check of the public improvement plans. The applicant shall provide receipts of all applicable fees paid prior to submitting plans for review.
- PW3. The applicant shall provide a deposit of \$12,000 for a Deputy Inspector for hillside construction. Whenever the balance drops below \$6,000, the applicant shall be required to make an additional deposit of \$6,000. Any unused funds will be refunded to the applicant at the completion of the project
- PW4. The applicant shall identify all on-site existing City easements. Any conflict with and/or presence of existing easements must be addressed. The applicant shall provide a Title Report, with effective date within the last 60 days. The applicant shall show all easements (if any) per the Title Report to the satisfaction of the Public Works Department.
- PW5. Peterson Avenue shall be photographed and video recorded before the start of construction and after construction for assessing the damage caused to the street by construction related activity. The applicant will be responsible to restore the public right-of-way to its original condition and to the satisfaction of the City Engineer. These video recordings and photographs shall be submitted to the City before the project approval and immediately upon completion of

the project.

- PW6. The applicant shall pay all applicable City sewer and/or water capacity charges per SPMC Section 16B.3.
- PW7. The applicant shall submit the proposed sewage flow calculations to the City. The proposed sewage flow from the property will be used to create a Hydraulic Analysis Report to determine if the sewer outlet has adequate capacity for the proposed sewage flow from the property. The developer shall be responsible for all sewer improvements to provide adequate capacity for the proposed sewage flow. The applicant shall pay for the cost to create a Hydraulic Analysis Report.
- PW8. The applicant shall provide a new sewer connection to the project. The proposed sewer lateral shall be a four-inch (4") diameter vitrified clay pipe (VCP) that connects to the City sewer main within the public right-of-way.
- PW9. The applicant shall provide a copy of a will-serve letter and receipt for the sewer connection fee from the Los Angeles County Sanitation District (LACSD). A copy of the receipt for any fees to be paid must be submitted before permit issuance.
- PW10. The applicant shall contact the City of South Pasadena Water Operations Manager, Victor Magana, VMagana@SouthPasadenaCA.gov for the fire flow test. The applicant shall submit water demand calculations to the City for potable water and fire (if applicable). The calculations will be used to verify the adequacy of the existing water/determine the size of the meter connection for the proposed structure and Fire Department approved fire sprinkler system (if applicable). The applicant shall coordinate with the Water Operations Manager the size, location and the associated fee for the installation of a new water meter connection.
- PW11. The applicant shall provide clearance letter from utility companies for any proposed relocation of utility lines that encroach on the properties prior to obtaining permits for the project.
- PW12. Improvement plans for underground utilities (i.e. water, sewer, electrical, telecommunications, etc.) to be placed in the public right-of-way or easement that will be owned and maintained by other entities shall be reviewed by the City prior to Utility Agency approval. The City shall have a place on the title sheet to accept the plans with a statement: "The City's acceptance is limited to the placement of utilities relative to public infrastructure clearances, uses, and future plans within the right-of-way.
- PW13. All flood control plans to be reviewed by the City or the Los Angeles County Flood Control District shall be submitted through the City of South Pasadena, unless otherwise directed by the City Engineer. For projects requiring LACFCD review, the developer shall pay the appropriate fees to LACFCD.
- PW14. The applicant shall bring the existing parkway on Peterson Avenue up to current standards per SPMC Section 31.48. The applicant shall submit a parkway landscape plan for review and the landscape design shall conform to the Model Water Efficient Landscape Ordinance (MWELO) as stipulated in SPMC Chapter 35, Article III.



- PW15. The applicant shall provide a detailed drainage and grading plan signed and stamped by a CA licensed civil engineer for improvements within the public right-of-way.
- PW16. The applicant shall provide an erosion control plan for improvements within the public right-of-way, showing dust control techniques to be implemented during project construction which shall include, but not be limited to, use of appropriate BMPs, plans for daily watering of the construction site, limitations on construction hours, and adherence to standard construction practices such as watering of inactive and perimeter areas.
- PW17. Provide a preconstruction survey for nesting birds performed by a Designated Biologist no more than 30 days prior to the start of project activities. All native migratory non-game birds, including raptors, and their active nests are protected from "take" by Sections 3503, 3503.5, and 3513 of the California Fish and Game Code and the Migratory Bird Treaty Act (MBTA). If active nests are found, the applicant shall provide a Nesting Bird Management Plan (NBMP) prepared by the Designated Biologist.
- PW18. Show all existing and proposed trees, including size and species, and indicate their disposition. If any trees (12" in diameter or greater and/or native trees) are to be removed, apply for a tree removal permit with the Public Works Department per City Ordinance No. 2328 amending Section 34.10 of SPMC. See SPMC Section 34.12 for the required information and process for the trees that are proposed to be removed and/or impacted during construction. Replacement trees shall be planted per SPMC Section 34.12-5. If existing trees are to remain on site, the applicant shall note on the plans methods of protecting existing trees during construction.
- PW19. The applicant shall provide a Construction Management Plan to the Public Works Department for review and approval prior to issuance of permits. The Construction Management Plan shall include, but not be limited to, types of proposed construction activities, an on-site staging plan, haul route, construction schedule, and shall indicate a contractor parking location. All vehicles including workers' vehicles shall not be parked on the streets or public right-of-way. An offsite parking with a shuttle service should be provided if necessary.
- PW20. The applicant shall provide a traffic sight distance study prepared by a CA licensed civil engineer for vehicular ingress and egress from the proposed driveway entrance. The applicant shall be responsible for implementing safety measures based on the sight distance study.
- PW21. The applicant shall apply for a new address permit for the proposed development.
- PW22. The applicant shall provide a covenant for unconditional and indefinite maintenance of any private improvements within the public right-of-way. This covenant shall be reviewed and approved by the Public Works Department and the City Attorney and a fully executed covenant, in recordable form, shall be provided to the City prior to obtaining a permit.
- PW23. The applicant shall include the following information on the plans:

- The 24-hour emergency contact number for the applicant and contact information of all utility agencies involved/impacted/potentially impacted by this project on the title sheet of the plans.
- The location, grade, and dimensions of all existing conditions and proposed improvements within the public right-of-way, including, but not limited to, curb and gutter, sidewalk, driveway, traffic striping, signage, trees, utilities, pavement and other features.
- The location of all existing utilities on adjacent street(s), as well as the location and size of all existing or proposed utilities serving the property. Show all utility points of connection (POC).
- Show the location and area of trench sections for any proposed sewer and water line connections within the public right-of-way. Provide a trench restoration detail per City standards if any new utility connections are proposed.
- A trench restoration detail per City standards for proposed utility connections.
- All utility poles adjacent to the properties and note to "PROTECT-IN-PLACE".

PW24. The applicant shall add the following notes on the plans:

- The applicant shall bring the existing parkway on Peterson Avenue up to current standards per SPMC Section 31.48.
- The applicant shall replace all broken, damaged, or out-of-grade curb and gutter, install new driveway approach, and repaint all curb markings along the perimeter of the property to the satisfaction of the City Engineer regardless of when or how such condition originally occurred per SPMC Section 31.54. All improvements within the public right-of-way shall conform to the current Standard Specifications for Public Works Construction (SSPWC) and Standard Plans for Public Works Construction (SPPWC).
- The proposed building structure shall not be constructed within critical root zone area of any trees. For native and protected species, use the tree trunk's diameter measured at breast height (DBH) (X5) as the minimum critical root mass. For non-native and protected species, use the tree's DBH (X3) as the minimum critical root mass.
- Any construction activity that may require roadway or lane closures where two-way traffic cannot be accommodated will require a traffic control plan prepared by a CA licensed civil or traffic engineer or a C-31 licensed contractor to be submitted for review. Safe pedestrian access, including ADA and bicycle, must be maintained at all times. All street closures will require an encroachment permit from the Public Works Department. Street closures are only allowed between 8:30 am-2 pm. Whenever there will be a street closure exceeding thirty minutes in duration, the applicant shall provide written notification about the street closure to all impacted businesses and residents at least 48 hours in advance of the street closure.
- The applicant shall post temporary "No Parking " signs along the entire length of the property prior to the start of any construction. The temporary "No Parking" signs shall be covered at the end of each working day and uncovered at the start of the following working day prior to any construction activity.
- The applicant shall place a minimum of two Portable Changeable Message Signs (PCMS) are required to be placed in advance of the project site.
- The applicant shall be responsible for posting a project sign at the entrance to the project site displaying the City's construction hours per SPMC Section 19A.13. The project sign shall be 24" x 36" and made of durable weather-resistant material. The applicant shall provide a 24-hour emergency contact number for the designated contact who will be responsible for maintaining the public right-of-way during the all stages of construction until the project is complete.

- No overnight storage of materials or equipment within the public right-of-way shall be permitted.
- Temporary bins (low boy), if used, shall be “roll off” style to be provided by Athens Services. Athens Services has an exclusive agreement with the City for the provision of trash removal services: only Athens dumpsters can be used. Any dumpsters placed on the roadway shall require a protective barrier underneath (such as plywood) to protect the pavement. The applicant shall obtain dumpster permit from the Public Works Department.
- The applicant shall obtain oversize/overload permits from the Public Works Department for any oversized equipment used during the stages of construction, including, but not limited to: demolition; clearing and grubbing; grading; material disposal; drilling for piles and/or caissons; trenching for footings; excavation for retaining walls; core sampling of soils; etc.
- The applicant shall obtain an encroachment permit from the Public Works Department for any work proposed within the public right-of-way.

**FIRE DEPARTMENT:**

- FD1. Required Code References: Current South Pasadena Municipal Code (SPMC); 2022 California Fire Code (CFC); 2022 California Building Code and NFPA standards.
- FD2. The applicant shall provide the Code Editions referenced for current project at time of submittal.
- FD3. Fire Alarm is required. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with sections 907.1 through 902.2.23 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.
- FD4. Fire Sprinklers are required. Submit plans to City for approval.
- FD5. Required automatic sprinkler systems in new buildings and structures shall be provide in the locations described in Sections 903.2.1 through 903.2.12.
- FD6. Fire sprinklers shall not be able to shut off unless the domestic line to the property is shut off. There shall be no other means to turn off water to the sprinkler system. Ensure this sprinkler system is installed by an approved C-16 licensed contractor. Provide a set of drawing of the sprinkler system to the Fire Department prior to beginning of work.
- FD7. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with Health and Safety Code Section 13114.7
- FD8. An approved water supply capable of supplying the required fire flow for fire protection shall be provide to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.
- FD9. The applicant shall provide a Water Flow Test from the City of South Pasadena Water Department along with fire sprinkler plans at time of submittal

- FD10. Address Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Address numbers shall be maintained.
- FD11. Notwithstanding anything else in this code, or any other code incorporated, herein, by reference any new roof shall be of Class "A" roof material.
- FD12. Groups R-2, R-2.1, R-3, R-3.1, and R-4. Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-2.1, R-3, R-3.1 and R-4 regardless of occupant load at all of the following locations:
- a. On the Ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms;
  - b. In each room used for sleeping purposes.
  - c. In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
- FD13. Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit or sleeping unit in Group R-1, R-2, R-3, R-3.1, or R-4, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.
- FD14. Where required for new construction, an approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed; and in dwelling units that have attached garages.
- FD15. Power Supply. For new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.
- FD16. Interconnection. Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.
- FD17. (CFC 903.2.18) Group U private garages and carports accessory to Group R-3 occupancies. Carports with habitable space above and attached garages, accessory to Group R-3 occupancies, shall be protected by residential fire sprinklers in accordance with this section. Residential fire sprinklers shall be connected to, and installed in accordance with, and automatic residential fire sprinkler system that complies with Section R313 of the California Residential Code or with NFPA 13D. Fire sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a minimum density of 0.05 /ft<sup>2</sup> (2.04 mm/min) over

the area of the garage and/or carport, but not to exceed two sprinklers for hydraulic calculation purposes. Garage doors shall not be considered obstructions with respect to sprinkler placement.

- FD18. Buildings under construction shall meet the condition of “Chapter 33 Fire Safety During Construction and Demolition” of the 2022 California Fire Code. Structures under construction, alteration or demolition, shall be provide with no less than one 2A10BC fire extinguisher as follows:
- 1) At each stairway on all floor levels where combustibles materials have accumulated.
  - 2) In every storage and construction shed.
  - 3) Where special hazards exist included, but not limited to, storage and use of combustible and flammable liquids.
- FD19. FD19. A set of plans must remain on the job site at all times. Appointment for inspections can be made two days in advance of required inspection by calling the Fire Department at (626) 403-7304.
- FD20. FD20. The applicant shall contact the water department for new meter or meter upgrade by contacting Public Works at (626) 403-7240.
- FD21. The City of South Pasadena Fire Department reserves the right to change or otherwise modify requirements based upon receiving additional project information or other unforeseen circumstances.

P.C. RESOLUTION NO. 24 - \_\_

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SOUTH PASADENA APPROVING PROJECT NO. 2571-VAR/HDP/DRX/TRP FOR DESIGN REVIEW AND HILLSIDE DEVELOPMENT PERMITS TO CONSTRUCT A NEW 3,010 SQUARE-FOOT SINGLE-FAMILY DWELLING WITH AN ATTACHED 495 SQUARE-FOOT GARAGE AT A VACANT PROPERTY LOCATED ON PETERSON AVENUE (APN: 5308-031-042). THE PROJECT SITE IS LOCATED WITHIN THE SOUTHWEST MONTEREY HILLS AREA. THE PROJECT INCLUDES TWO VARIANCE REQUESTS: 1) FOR BUILDING HEIGHT EXCEEDING THE MAXIMUM HEIGHT OF 24 FEET, AND 2) DOWNHILL BUILDING WALLS REQUIREMENTS AND A TREE REMOVAL PERMIT FOR THE PROPOSED REMOVAL OF TWO TREES. IN ACCORDANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), THIS PROJECT QUALIFIES FOR A CATEGORICAL EXEMPTION UNDER SECTION 15303, CLASS 3 (NEW CONSTRUCTION OR CONVERSION OF SMALL STRUCTURES).

**WHEREAS**, on February 22, 2023, Yung Kao (the “applicant”) submitted an application for the following entitlements:

1. **Two (2) Variances (VAR)** to deviate from development standards:
  - a. A Variance to exceed the maximum height of 24 feet (South Pasadena Municipal Code Section 36.340.050(C), and;
  - b. A Variance from the downhill building walls requirements (South Pasadena Municipal Code Section 36.340.050(C)(5)) in conjunction with;
2. **Hillside Development Permit (HDP)** to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant hillside property.
3. **A Design Review Permit (DRX)** for the review of the design aspects of the proposed development; and,
4. **A Tree Removal Permit (TRP)** to remove two (2) trees.

The project is located on Peterson Avenue (APN: 5308-031-042) within the Southwest Monterey Hills area (the above-referenced applications and requests are referred to herein as the “project” or “proposed project”); and

**WHEREAS**, the subject property is zoned Residential Low Density (RS) and has a General Plan land use designation of Low Density Residential; and

**WHEREAS**, the proposed project is categorically exempt from the California Environmental Quality Act (CEQA), per CEQA Guidelines Section 15303, Class 3 – New Construction. The project will not have a significant effect on the environment because the project falls under a Class 3 – New Construction or Conversion of Small Structures. Class 3 exemption includes the construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor

modifications are made in the exterior of the structure. Class 3 exemption includes, but is not limited to: one single-family residence, or a second dwelling unit in a residential zone; in urbanized areas, up to three single-family residences may be constructed or converted under this exemption. The project will not have a significant effect on the environment because the project includes one single-family residence; the project is in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan; and is not located in an environmentally sensitive area.

**WHEREAS**, the Community Development Department evaluated the project for consistency with the City's General Plan, South Pasadena Municipal Code, the City's Design Guidelines, and all other applicable state and local regulations; and

**WHEREAS**, on March 29, 2024, the City of South Pasadena Planning Division, published a legal notice in the *South Pasadena Review*, a local newspaper of general circulation, indicating the date, time, and location of the public hearing in compliance with state law concerning Project No. 2571-VAR/HDP/DRX/TRP. On March 28, 2024 said public hearing notices were also mailed to each property owner within a 300-foot radius of the project site and to properties located within the Southwest Monterey Hills Notification Area in accordance with the requirements of South Pasadena Municipal Code declaring the project review by the Planning Commission; and

**WHEREAS**, the South Pasadena Planning Commission held a duly noticed public hearing on April 9, 2024, at which time it considered the staff report, oral report, the testimony, and the written evidence submitted by and on behalf of the applicant and by members of the public concerning Project No. 2571-VAR/HDP/DRX/TRP.

**NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF SOUTH PASADENA DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:**

### **SECTION 1: ACKNOWLEDGEMENTS**

The foregoing recitals are true and correct and are incorporated and made an operative part of this resolution.

### **SECTION 2: ENVIRONMENTAL REVIEW FINDINGS**

The Planning Commission has determined that the proposed project is Categorically Exempt from the provisions of the California Environmental Quality Act (CEQA), under CEQA Guidelines Section 15303, Class 3 – New Construction or Conversion of Small Structures. Class 3 exemption includes the construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure. Class 3 exemption includes, but is not limited to: one single-family residence, or a second dwelling

unit in a residential zone; in urbanized areas, up to three single-family residences may be constructed or converted under this exemption. The project will not have a significant effect on the environment because the project includes one single-family residence; the project is in an area where all public services and facilities are available to allow for maximum development permissible in the General Plan; and is not located in an environmentally sensitive area.

### **SECTION 3: HILLSIDE DEVELOPMENT PERMIT FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings for approval of a Hillside Development Permit pursuant to the South Pasadena Municipal Code (SPMC), Section 36.410.065(F), as follows:

**1. The proposed use complies with requirements of Division 36.340 (Hillside Protection) and all other applicable provisions of this Zoning Code.**

The project uses thoughtful site design which conforms to the hillside development standards and design guidelines. The project is considerate of the character and scale of the existing single-family developments in the vicinity. The overall objectives of the hillside development standards in the Zoning Code include, but are not limited to, protections of views, sensitive terrain alterations, site layout, grading and location of structures, appropriate massing, quality architectural design features and properly designated landscape and landscape features, in which this project has considered and exemplified. With the exception of two variances being requested, the project as designed and conditioned, will comply with the Hillside Protection Ordinance and the RS standards in the SPMC.

**2. The proposed use is consistent with the General Plan and any applicable specific plan;**

The City has updated its General Plan to be consistent with the 2021-2029 (6<sup>th</sup> Cycle) Housing Element, which included a new Downtown Specific Plan (DTSP) to replace the Mission Street Specific Plan (MSSP), amendments to the Zoning Code and Zoning Map, the creation of a Mixed-Use Overlay District and development standards. The subject property is not slated to be rezoned, but updated General Plan policy goals will apply throughout the City.

The General Plan land use designation of the site was previously Low Density Residential, now recognized as Low Density Neighborhood, which allows for detached single-family units. The proposed project does not involve the addition of another dwelling unit or a subdivision of land; therefore, the project is consistent with the General Plan. In addition, the project has been conditioned, to ensure that the



applicant abides, to meet the applicable Southwest Monterey Hills construction regulations.

As proposed, the project complies with requirements contemplated by SPMC Section 36.410.040 and the General Plan for development of a single family dwelling located in the single-family zoning district on the hillside.

- 3. The establishment, maintenance, or operation of the use would not, under the circumstances of the particular case, be detrimental to the health, safety, or general welfare of the persons residing or working in the neighborhood of the proposed use;**

The neighborhood is developed with a mix of hillside homes in both architectural style and scale; as required and conditioned, all construction documents, including grading plans and calculations, would be prepared by professional architects or engineers and must be formally reviewed and approved by the appropriate City departments prior to issuing permits. As such, the proposed land use for a single-family residential home will remain unchanged and as designed and conditioned, would not be detrimental to the health and safety or general welfare of persons residing or working in the neighborhood.

- 4. The use, as described and conditionally approved, would not be detrimental or injurious to properties and improvements in the neighborhood or to the general welfare of the City; and,**

Prior to commencing construction, the project is required to comply with and obtain all applicable building permits, including those necessary for grading, utilities, public works, and fire prevention. Additionally, the applicant shall provide a construction management plan, as required in the Southwest Monterey Hills Construction Plan area, prior to the issuance of building permits. By complying with the applicable codes and conditions of approval, the project will not be detrimental or injurious to the properties and improvements in the neighborhood or to the general welfare of the City.

- 5. The design, location, operating characteristics, and size of the proposed use would be compatible with the existing and future land uses in the vicinity, in terms of aesthetics, character, scale, and view protection.**

The proposed use of single-family residential will remain unchanged and the project is consistent with the established residential neighborhood. The scale of the project is appropriate in size, when compared to the surrounding neighborhood and the topography of the land and the configuration of neighboring properties minimizes view impacts. With the exception of the variances requested, the proposed design complies with the City's Hillside Design Guidelines, the Hillside Protection Ordinance, and the SPMC, including but not limited to building mass, scale, respect of the topography, and lot coverage.

## **SECTION 4: DESIGN REVIEW FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings for approval of a Design Review Permit pursuant to the South Pasadena Municipal Code (SPMC), Section 36.410.040(I), as follows:

- 1. Is consistent with the General Plan, any adopted design guidelines and any applicable design criteria for specialized areas (e.g., designated historic district or other special districts, plan developments, or specific plans);**

The City has updated its General Plan to be consistent with the 2021-2029 (6<sup>th</sup> Cycle) Housing Element, which included a new Downtown Specific Plan (DTSP) to replace the Mission Street Specific Plan (MSSP), amendments to the Zoning Code and Zoning Map, the creation of a Mixed-Use Overlay District and development standards. The subject property is not slated to be rezoned, but updated General Plan policy goals will apply throughout the City.

The General Plan land use designation of the site was previously Low Density Residential, now recognized as Low Density Neighborhood, which allows for detached single-family units. The proposed project does not involve the addition of another dwelling unit or a subdivision of land and complies with the applicable General plan Goals, Development and Design Standards, and related Design Guidelines for the development of a hillside property; therefore, the project is consistent with the General Plan. In addition, the project has been conditioned, to ensure that the applicant abides, to meet the applicable Southwest Monterey Hills construction regulations.

As proposed, the project complies with requirements contemplated by SPMC Section 36.410.040 and the General Plan for development of a single family dwelling located in the single-family zoning district on the hillside.

- 2. Will adequately accommodate the functions and activities proposed for the site, will not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards;**

The project involves construction of a new 3,010 square-foot home with an attached 495 square-foot garage on a vacant hillside property. The proposed development is consistent with the land use and design standards for the zone, with the exception of the requested variances. Based upon the height and mass of the proposed project and its location, the new development will not interfere with the use and enjoyment of neighboring, existing, or future developments. Conditions of approval for process and procedures of construction have been carefully considered, and the proposed work will be limited to the project site and associated improvement of the public right-of-way on Peterson Avenue.

The requested variance to exceed the maximum height will allow the project to comply with the required setbacks while preserving the majority of the land's natural state, with minimal view impacts from hilltop or to the existing terrain. The second requested variance will allow the proposed project with a decreased building projection to lessen the project's mass, scale, and overall projection from the hillside. Both variances will allow the construction of the development with minor impact to the existing sloping terrain and hillside views based upon the height and mass of the proposed project.

The development project and the associated temporary construction activities would not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards. A construction management plan will be reviewed and approved by staff during the Building and Public Works permitting process.

- 3. Is compatible with the existing character of the surrounding neighborhood and that all reasonable design efforts have been made to maintain the attractive, harmonious, and orderly development contemplated by SPMC Section 36.410.040 and the General Plan; and**

The project site is surrounded by multi-story residential buildings of different architectural styles and sizes. Except for the variances sought, the project complies with all the development standards for zoning and hillside lots. The proposed development is compatible with the neighborhood and it will have minimal view impacts from hilltop or to the existing terrain due to the limited projections of each floor level. The building location, size, and form fits the size of the lot. As described in more detail by staff report, the proposed project complies with requirements contemplated by SPMC Section 36.410.040 and the General Plan for the proposed development of a single family dwelling located in the single-family zoning district on the hillside.

- 4. Would provide a desirable environment for its occupants and neighbors, and is aesthetically of good composition, materials, and texture that would remain aesthetically appealing with a reasonable level of maintenance and upkeep.**

The proposed project has been designed with consideration to its future occupants and neighbors. The proposed project uses appropriate materials that complement the eclectic architecture of the surrounding neighborhood. The proposed development incorporates a minimalist architectural style with; large windows and glass doors facing the rear of the property with minimal fenestration and architectural elements at the front elevation, sleek decks and a balcony, and use of natural materials and neutral color palettes. The architectural features include a wood garage door and windows and doors manufactured by Milgard. The exterior walls will be clad with a combination of super fine finished stucco, stone veneer, and composite horizontal siding. The project also proposes steel plate guardrails for the decks and balcony and a sloped roof with asphalt roof shingles. As required and conditioned, the final design, materials, and construction documents would be reviewed and approved by the

Planning Division and Building Division prior to permit issuance.

## **SECTION 5: VARIANCE FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings to grant a Variance, pursuant to the South Pasadena Municipal Code (SPMC) Section 36.410.080, for diviation from Section 36.340.050(C) and Section 36.340.050(C)(5), as follows:

- 1. There are special circumstances applicable to the subject property (e.g., location, shape, size, surroundings, topography, or other conditions), so that the strict application of this Zoning Code denies the property owner privileges enjoyed by other property owners in the vicinity and within the same zoning district, or creates an unnecessary and involuntarily created hardship, or unreasonable regulation which makes it impractical to require compliance with the development standards;**

### *36.340.050(C)— Height Limitations for Hillside Development Project*

There are special circumstances applicable to the subject property which consists of an average slope of 54.48 percent and the irregular shape of the lot. The steep terrain of the vacant site is the driving factor for the Variance. Since the roof slope is proposed at a 2'/12" slope, the code section places a 24 foot height limitation on structures, measured vertically from existing grading.

As such, due to the existing conditions of the site, the requested increased in the allowable building height will permit the project to maintain the existing terrain mostly undisturbed and maintain the 10' front yard setback for the required driveway improvements, while limiting obstruction of views for the hillside. As proposed, the building height will partly exceed the maximum height of 24 feet on the rear building corners of the top and middle floors. Other properties in the vicinity have been designed with similar characteristics such as the required front yard setback, guest parking space, size, massing, and design.

Some of the properties in the vicinity exceed the current hillside height limitations. As such, the requested Variance to allow the increase in building height will not set a precedent for the existing neighborhood.

In fact, due to lack of available street parking on the hillsides, the Variance for height is needed to maintain the proposed driveway and guest parking for the preservation and enjoyment of the property rights possessed by other property owners in the same vicinity and zoning district.

Section 36.340.050 (C)(5)— *Waive Downhill Building Wall Requirements*

The steep sloping terrain and preservation of the hillside views for the vacant site is the driving factor for the Variance.

If the project were to comply with the 10 foot stepped back requirement for each 15' downhill building wall, the proposed house would have to further encroach onto the proposed building height limitations, obstruct hillside views, and potentially require additional Variances for an increase in maximum FAR and siting restrictions against the silhouette of the sky.

As such, the requested Variance to allow the deviation of the downhill building wall standards will not set a precedent for the existing neighborhood. As proposed and condition, the development without the approval of the requested Variance will create an unnecessary and involuntarily hardship, or unreasonable regulation which makes it impractical to require compliance with the development standards.

**2. Granting the Variance would:**

- a. Be necessary for the preservation and enjoyment of substantial property rights possessed by other property owners in the same vicinity and zoning district, and denied to the subject property owner;**

*36.340.050(C)— Height Limitations for Hillside Development Project*

If the project were to meet the height limitations, the proposed house would have to significantly cut into and disturb the existing natural slope of the hillside. The project could also consider obtaining Variances for the required 10-foot front yard setback and guest parking space, pushing the project further onto the hillside. However, this would make the development incompatible with other single-family developments in the neighborhood.

In fact, due to lack of available street parking on the hillsides, the height variance is preferred to maintain the required 10 foot setback for the driveway and guest parking for the preservation and enjoyment of the property rights possessed by other property owners in the same vicinity and zoning district.

Section 36.340.050 (C)(5)— *Waive Downhill Building Wall Requirements*

The project has been designed to fit the existing contour lines of the terrain as required by the SPMC, instead of significantly altering the existing land to fit the project. The subject property is surrounded by existing single-family dwellings that do not meet the downhill building wall requirements.

If the project were to comply with the 10 foot stepped back from each floor, the proposed house would have to further encroach onto the existing building height limitations and further obstruct the hillside views or potentially propose

additional Variances for an increase in maximum FAR and siting restrictions against the silhouette of the sky.

The requested Variance to allow the deviation of the downhill building wall standards will not set a precedent for the existing neighborhood. The Variance is required for the preservation and enjoyment of the property rights possessed by other property owners in the same vicinity and zoning district.

**b. Be consistent with the General Plan and any applicable specific plan, and the limitations established by the 1983 initiative;**

*36.340.050(C)— Height Limitations for Hillside Development Project*

The proposed project is consistent with the General Plan, the City's adopted Design Guidelines for new single family buildings on hillsides, and the height limit established by the 1983 initiative. The proposed project does not impact limitations established by the 1983 initiative and does not impact goals established by the General Plan. The General Plan land use designation of the site was previously Low Density Residential, now recognized as Low Density Neighborhood, which allows for detached single-family units. The proposed project with the Variance does not involve the addition of another dwelling unit or a subdivision of land; therefore, the project is consistent.

*Section 36.340.050 (C)(5)— Waive Downhill Building Wall Requirements*

The proposed project is consistent with the General Plan, the City's adopted Design Guidelines for new single family buildings on hillsides, and the height limit established by the 1983 initiative. The proposed project does not impact limitations established by the 1983 initiative and does not impact goals established by the General Plan. The General Plan land use designation of the site was previously Low Density Residential, now recognized as Low Density Neighborhood, which allows for detached single-family units. The proposed project with the Variance does not involve the addition of another dwelling unit or a subdivision of land; therefore, the project is consistent with the General Plan.

**c. Not constitute a grant of special privileges inconsistent with the limitations on other properties in the vicinity and in the same zoning district; and**

*36.340.050(C)— Height Limitations for Hillside Development Project*

The granting of the Variance to exceed the maximum height of a single-family hillside development would not constitute a grant of special privileges that are inconsistent with the limitations on other properties in the vicinity and in the same zoning district, as other existing properties in the hillside neighborhood

exceed the limitations due to the implementation of the hillside development standards.

If the project were to meet the height limitations, the proposed house would have to significantly cut into and disturb the existing natural slope of the hillside. The project could also consider obtaining Variances for the required 10-foot front yard setback and guest parking space, pushing the project further onto the hillside. However, this would make the development incompatible with other single-family developments in the neighborhood.

In fact, granting the Variance to accommodate the driveway and guest parking is preferable for the preservation and enjoyment of property rights possessed by other property owners in the same vicinity and zoning district.

Thus, the approval of the Variance for height would not constitute a grant of special privileges that are inconsistent with the limitations on other properties in the vicinity and in the same zoning district.

*Section 36.340.050 (C)(5)— Downhill Building Wall Requirements*

Such as the proposed project, some of the other properties do not meet the downhill building wall requirements. The granting of the Variance for the downhill building wall requirements does not constitute a grant of special privileges inconsistent with the limitations on other properties in the vicinity and in the same zoning district, as other parcels are developed with downhill walls that exceed 15 feet without the required 10 foot increments from the lower level downhill facing wall either due to the year built or issuance of a Variance.

If the project were to comply with the 10 foot stepped back from each floor, the proposed house would have to further encroach onto the existing building height limitations or potentially propose additional Variances for an increase in maximum FAR and siting restrictions against the silhouette of the sky.

As such, the requested Variance to allow the deviation of the downhill building wall standard will not set a precedent for the existing neighborhood.

- d. Not be materially detrimental to the public convenience, health, interest, safety, or welfare of the City, or injurious to the property or improvements in the vicinity and zoning district in which the property is located.**

*36.340.050(C)— Height Limitations for Hillside Development Project*

The Public Works Department has reviewed this project and recommended Conditions of Approval to mitigate any potential construction impact during construction. The recommended conditions including, but not limited to, requiring the applicant to submit a construction management plan, advanced notice for any street closures, and prohibiting overnight storage of materials or

equipment within the public right-of-way. The temporary construction activities would not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards. Since the proposed project is located within the Southwest Monterey Hills area, an additional condition was added to ensure that the applicant abides by construction regulations. The conditions of approval for process and procedures of construction have been carefully considered, and the proposed work will be limited to the project site and associated improvement of the public right-of-way on Peterson Avenue.

As such, the project, with the requested Variance for building height, would not be materially detrimental to the public convenience, health, interest, safety, or welfare of the City, or injurious to the property or improvements in the vicinity and zoning districts in which the property is located, as it would bring an additional housing opportunity to the city and develop an existing vacant site with minimal impacts to the existing terrain and hillside views.

Section 36.340.050 (C)(5)— *Waive Downhill Building Wall Requirements*

The Public Works Department has reviewed this project and recommended Conditions of Approval to mitigate any potential construction impact during construction. The recommended conditions including, but not limited to, requiring the applicant to submit a construction management plan, advanced notice for any street closures, and prohibiting overnight storage of materials or equipment within the public right-of-way. The temporary construction activities would not unreasonably interfere with the use and enjoyment of the neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards. Since the proposed project is located within the Southwest Monterey Hills area, an additional condition was added to ensure that the applicant abides by construction regulations. The conditions of approval for process and procedures of construction have been carefully considered, and the proposed work will be limited to the project site and associated improvement of the public right-of-way on Peterson Avenue.

As such, the project, with the requested Variance for downhill building wall requirements, would not be materially detrimental to the public convenience, health, interest, safety, or welfare of the City, or injurious to the property or improvements in the vicinity and zoning districts in which the property is located, as it would bring an additional housing opportunity to the city and develop an existing vacant site with minimal impacts to the existing terrain and hillside views.



- 3. The proposed project would be compatible with the existing aesthetics, character, and scale of the surrounding neighborhood, and considers impacts on neighboring properties.**

*36.340.050(C)— Height Limitations for Hillside Development Project*

The subject property is surrounded by existing single-family dwellings. The surrounding neighborhood includes a mix of large, multi-story homes with a variety of architectural styles. Some of the properties exceed the current hillside height limitations. The project has been designed to fit the existing contour lines of the terrain as required by the SPMC; instead of significantly altering the existing land to fit the project. The subject property is surrounded by existing single-family dwellings built prior to the adoption of the City's Hillside Development Standards.

As such, the requested Variance to allow the increase in building height will not set a precedent for the existing neighborhood. The architectural style of the neighborhood surrounding the project site is mixed with various architectural styles including minimalist architectural designs, same as the proposed. The development would be compatible with the existing aesthetics, character, and scale of the surrounding neighborhood, and considers impacts on neighboring properties.

*Section 36.340.050 (C)(5)— Waive Downhill Building Wall Requirements*

The project has been designed to fit the existing contour lines of the terrain as required by the SPMC, instead of significantly altering the existing land to fit the project. The subject property is surrounded by other existing single-family dwellings that do not meet the downhill building wall requirements. The project has been designed to fit the existing contour lines of the terrain as required by the SPMC; instead of significantly altering the existing land to fit the project. The subject property is surrounded by existing single-family dwellings built prior to the adoption of the City's Hillside Development Standards. As a result, some of the properties in the vicinity do not meet the downhill building wall requirements. As such, the requested variance to allow the deviation from Subsection 5 of the Downhill Building Wall standard will not set a precedent for the existing neighborhood.

As such, the requested Variance to allow the deviation of the downhill building wall standard will not set a precedent for the existing neighborhood. The architectural style of the neighborhood surrounding the project site is mixed with various architectural styles including minimalist architectural designs, same as the proposed. The development would be compatible with the existing aesthetics, character, and scale of the surrounding neighborhood, and considers impacts on neighboring properties.

**SECTION 6: RECORD OF PROCEEDING**

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include, but are not limited to,

the staff reports, as well as all materials that support the staff reports for the proposed project, are located in the Community Development Department of the City of South Pasadena at 1414 Mission Street, South Pasadena, CA 91030. The custodian of these documents is the City Clerk of the City of South Pasadena.

### **SECTION 7: DETERMINATION**

Based upon the findings outlined in Sections 2-5 above and provided during the public hearing, the Planning Commission of the City of South Pasadena hereby approves Project No. 2571-VAR/HDP/DRX/TRP and the applications for a Hillside Development Permit, Design Review Permit, Variance and Tree Removal Permit to construct a new 3,010 square-foot single-family dwelling with an attached 495 square-foot garage at a vacant property located on Peterson Avenue (APN: 5308-031-042), subject to the Conditions of Approval that are attached hereto as "Attachment 1".

### **SECTION 8: APPEAL**

Any interested person may appeal this decision or any portion of this decision to the City Council. Pursuant to the South Pasadena Municipal Code, any such appeal must be filed with the City, in writing, and with appropriate appeal fee, no later than fifteen (15) days, following the date of the Planning Commission's final action.

### **SECTION 9: CERTIFICATION OF THE RESOLUTION**

The Secretary shall certify that the foregoing Resolution was adopted by the Planning Commission of the City of South Pasadena at a duly noticed regular meeting held on the 9<sup>th</sup> day of April, 2024.

**PASSED, APPROVED, AND ADOPTED** this 9<sup>th</sup> day of April, 2024 by the following vote:

**AYES:**

**NOES:**

**ABSENT:**

**ABSTAIN:**

---

Lisa Padilla, Chair

**ATTEST:**

---

Mark Gallatin, Secretary to the Planning Commission

## **ATTACHMENT 2**

Site Images

# Site Images Map



**Image 1**



**Image 2**



**Image 3**



**Image 4**



**Image 5**



**Image 4**



## **ATTACHMENT 3**

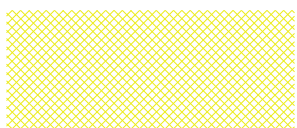
### Neighborhood Images

# HOUSES IN THE PROJECT VICINITY

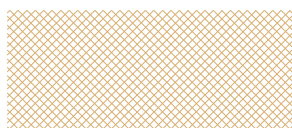


LA County | County of Los Angeles. Bu

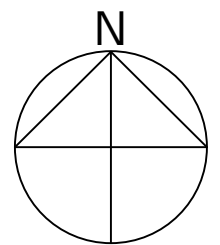
## PHOTO MAP LEGEND



PROJECT SITE



VACANT LOT



PM-1



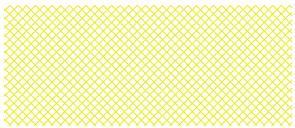
235 E MAIN STREET SUITE 200  
ALHAMBRA CALIFORNIA 91801  
TEL 626-570-9989 FAX 626-570-8104  
EMAIL ARCHITECTGROUP@MSN.COM

**WANG'S RESIDENCE**  
APN 5308-031-042  
Peterson Avenue, South Pasadena

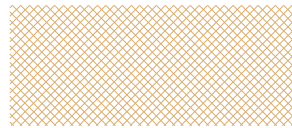
# HOUSES IN THE PROJECT VICINITY



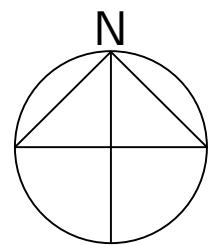
## PHOTO MAP LEGEND



PROJECT SITE



VACANT LOT



PM-2



235 E MAIN STREET SUITE 200  
ALHAMBRA CALIFORNIA 91801  
TEL 626-570-9989 FAX 626-570-8104  
EMAIL ARCHITECTGROUP@MSN.COM

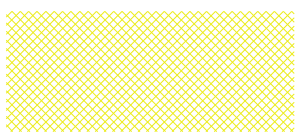
## WANG'S RESIDENCE

APN 5308-031-042  
Peterson Avenue, South Pasadena

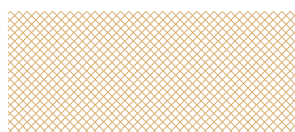
# HOUSES IN THE PROJECT VICINITY



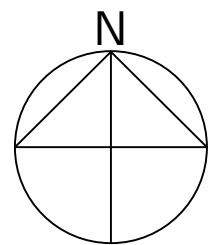
## PHOTO MAP LEGEND



PROJECT SITE



VACANT LOT



PM-3



235 E MAIN STREET SUITE 200  
ALHAMBRA CALIFORNIA 91801  
TEL 626-570-9989 FAX 626-570-8104  
EMAIL ARCHITECTGROUP@MSN.COM

## WANG'S RESIDENCE

APN 5308-031-042  
Peterson Avenue, South Pasadena



115 Peterson Avenue



117 Peterson Avenue



136 Peterson Avenue



156 Peterson Avenue



149 Peterson Avenue



149 Peterson Avenue



1811 Peterson Avenue



1811, 1815, 1817, 1821 Peterson Avenue





1824 Peterson Avenue



1832 Peterson Avenue



1878 Peterson Avenue



1878 Peterson Avenue



1883 Peterson Avenue



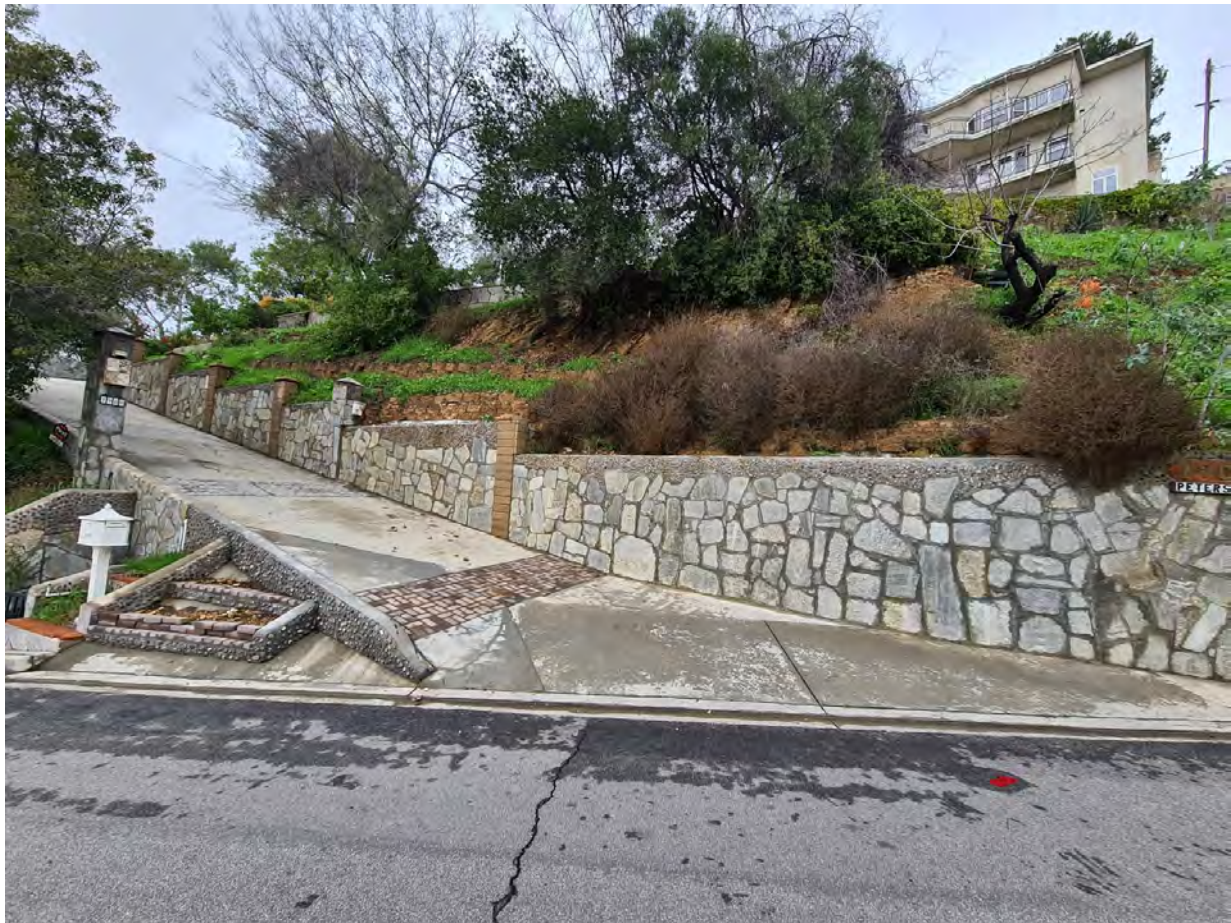
1883 Peterson Avenue



1871 Peterson Avenue



1883 Peterson Avenue



1900 Peterson Avenue



1742 Hill Drive



1703 Hanscom Drive



1711 Hanscom Drive



1723 Hill Drive



1725 Hill Drive



1727 Hanscom Drive



1727 Hanscom Drive





1905 Hanscom Drive



1937 Hanscom Drive



1923 Hanscom Drive



1923 Hanscom Drive



2066 Hanscom Drive



2076 Hanscom Drive



2072 Hanscom Drive



2072 Hanscom Drive



2075 Hanscom Drive



2075, 2077 Hanscom Drive



2080 Hanscom Drive



2080 Hanscom Drive



2084 Hanscom Drive



2083 Hanscom Drive



2089 Hanscom Drive



2106 Hanscom Drive





2114 Hanscom Drive



2115 Hanscom Drive



21108 Hanscom Drive



2083 Hanscom Drive



2135, 2141 Hanscom Drive



2141, 2145 Hanscom Drive



2100 Hanscom Drive



2100 Hanscom Drive

# **ATTACHMENT 4**

Architectural Plans & Renderings

# WANG'S RESIDENCE

Peterson Avenue South Pasadena, APN 5308-031-042



235 E MAIN STREET SUITE 200  
ALHAMBRA CALIFORNIA 91801  
TEL 626-570-9989 FAX 626-570-8104  
EMAIL ARCHITECHGROUP@MSN.COM

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Project:  
**WANG'S RESIDENCE**  
APN 5308-031-042  
Peterson Avenue, South Pasadena

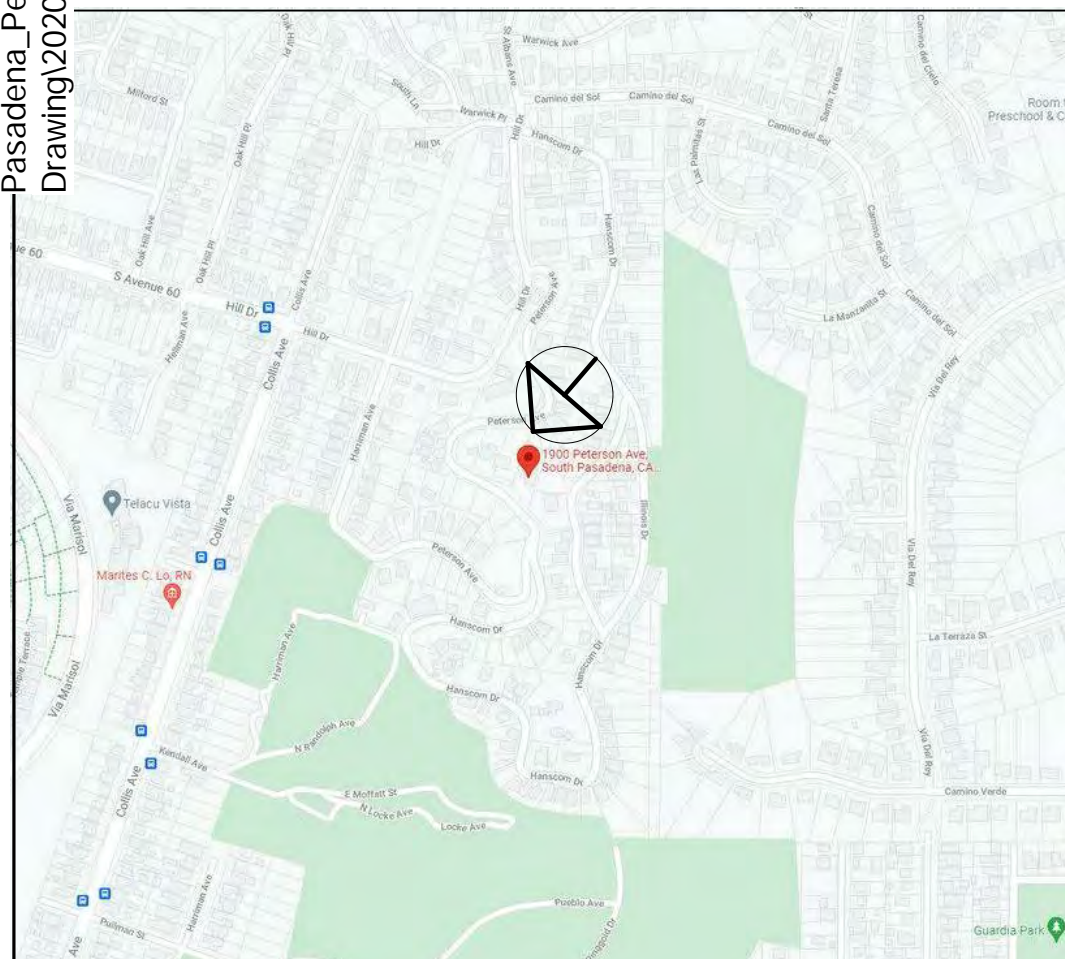
Owner:  
**Ken Wang**  
818.679.0622

## BUILDING DATA

PROJECT: NEW CUSTOM HOUSE  
APN 5308-031-042 PETERSON AVE. SOUTH PASADENA  
ASSESSOR PARCEL NO.: 5308-031-042  
LOT SIZE: 8,755 SQ. FT.  
ZONING: RS  
OCCUPANCY GROUP: R-3/ U  
TYPE OF CONSTRUCTION: V-B  
BUILDING HEIGHT / STORY: 20'-3" / 3 STORY  
FLOOR AREA:  
UPPER LEVEL AREA: 795 SQ. FT.  
MIDDLE LEVEL AREA: 1,174 SQ. FT.  
LOWER LEVEL AREA: 1,041 SQ. FT.  
TOTAL LIVING FLOOR AREA: = 3,010 SQ. FT.  
2- CAR GARAGE/STORAGE: 495 SQ. FT.  
DECK AREA:  
UPPER LEVEL ROOF DECK: 329 SQ. FT.  
MIDDLE LEVEL ROOF DECK: 428 SQ. FT.  
LOWER LEVEL WOOD DECK: 156 SQ. FT.  
TOTAL DECK AREA: 913 SQ. FT.  
FLOOR AREA RATIO:  
3,010 SQ. FT. / 8,755 SQ. FT.  
= 34.3 % < 35 %  
LOT COVERAGE: (SEE BLD'G. FOOTPRINT BREAKDOWN ON SHT. A-100)  
2,041 SQ. FT. / 8,755 SQ. FT.  
= 23.3 % < 40 %  
BUILDING SETBACK:  
FRONTYARD SETBACK: REQUIRED: 10'. PROVIDED: 10'.  
SIDEYARD SETBACK: REQUIRED: 7'. PROVIDED: 7'-6".  
REARYARD SETBACK: REQUIRED: 20'. PROVIDED: 78'-6".  
DRIVEWAY SLOPE: 5% MAX. SLOPE



## VICINITY MAP



## SHEET INDEX

A-001	Title Sheet	A-601	Schedules
A-100	Site Plan	A-700	Material Board
A-100a	Isonometric & Perspective view	A-701	Lights Specification
A-100b	Survey & Tree Removal Plan		
A-100c	Retaining Wall & Conceptual Grading Plan		
A-101	Upper Level Plan		
A-102	Middle Level Plan		
A-103	Lower Level Plan		
A-104	Roof Plan		
A-201	West & South Elevation		
A-202	East & North Elevation		
A-301	Sections		
A-302	Section		
A-303	Section		

## Title Sheet

Scale: As indicated  
Drawn: Author  
Checked: Checker  
Date: April 25, 2023  
Job No. 1006

**A001**

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

**AVERAGE SLOPE CALCULATION**

AVERAGE SLOPE FORMULAS  $S = \frac{100 (IX L)}{A}$

$\frac{100 (10' X 477)}{8,755 \text{ SQ. FT.}}$

AVERAGE SLOPE %  $S = 54.48$

**LOT WIDTH CALCULATION:**

AVERAGE WIDTH OF LOT:  $8,755 \text{ sq. ft.} / 124'-6" = 70.48'$   
 10% OF AVERAGE WIDTH  $10\% (70.48') = 7.04'$   
 SIDE YARD REQUIRED WIDTH 7.04' MAX.  
 SIDE YARD PROVIDED WIDTH 7.50'

**FRONT YARD LANDSCAPE CALCULATION:**

FRONT YARD SETBACK AREA: 1,449 sq. ft.  
 NEW DRIVEWAY / WALKWAY AREA: 449 sq. ft.  
 MAXIMUM HARDSCAPE AREA ALLOWED: 45%  
 $449 \text{ sq. ft.} / 1,449 \text{ sq. ft.} = 31\% < 45\%$

**NATURAL LANDSCAPE:**

$8,755 \text{ sq. ft.} - 2,390 \text{ sq. ft.} = 6,365 \text{ sq. ft.} / 8,755 \text{ sq. ft.} = .727\%$   
 (ADDITIONAL NATURAL LANDSCAPE AREA UNDER DRIVEWAY BRIDGE AND BUILDING FOOTPRINT ARE OMITTED FROM THE NUMBER IN THE CALCULATION)

**BUILDING FOOTPRINT AT EACH LEVEL :**

LEVEL "A" = 1,290 sq. ft.  
 LEVEL "B" = 367 sq. ft.  
 LEVEL "C" = 384 sq. ft.  
 TOTAL AREA = 2,041 sq. ft.

**Site Plan**

Scale:	As indicated
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

**A100**



**1 Site Plan**  
1/8" = 1'-0"

ENGINEER  
*Kenneth R. ...*

Date: 2/26/2024 4:24:23 PM File: C:\The Architect Group\Projects\2021\03\_South Pasadena\_Peterson Avenue\_Single Family Residence\01 Current Drawing\2020\Plan V10.rvt

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622



③ ISO VIEW SOUTH EAST

① EAST PERSPECTIVE



④ ISO VIEW NORTH WEST

② ISO VIEW SOUTH WEST

**ISOs and Views**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

**A100a**



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Project:  
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APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:  
**Ken Wang**  
818.679.0622



ENGINEER  
*Kenneth K. Wang*  
Kenneth K. Wang

**1 Survey & Tree Removal Plan**  
1/8" = 1'-0"

**Survey & Tree Removal Plan**

Scale:	1/8" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.:	1006

**A100b**

Revisions	By	Revisions	By

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Project:

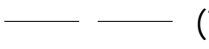
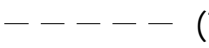


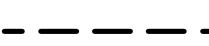

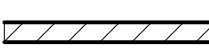

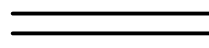





**WANG'S RESIDENCE**

APN 5308-31-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

**LEGEND**

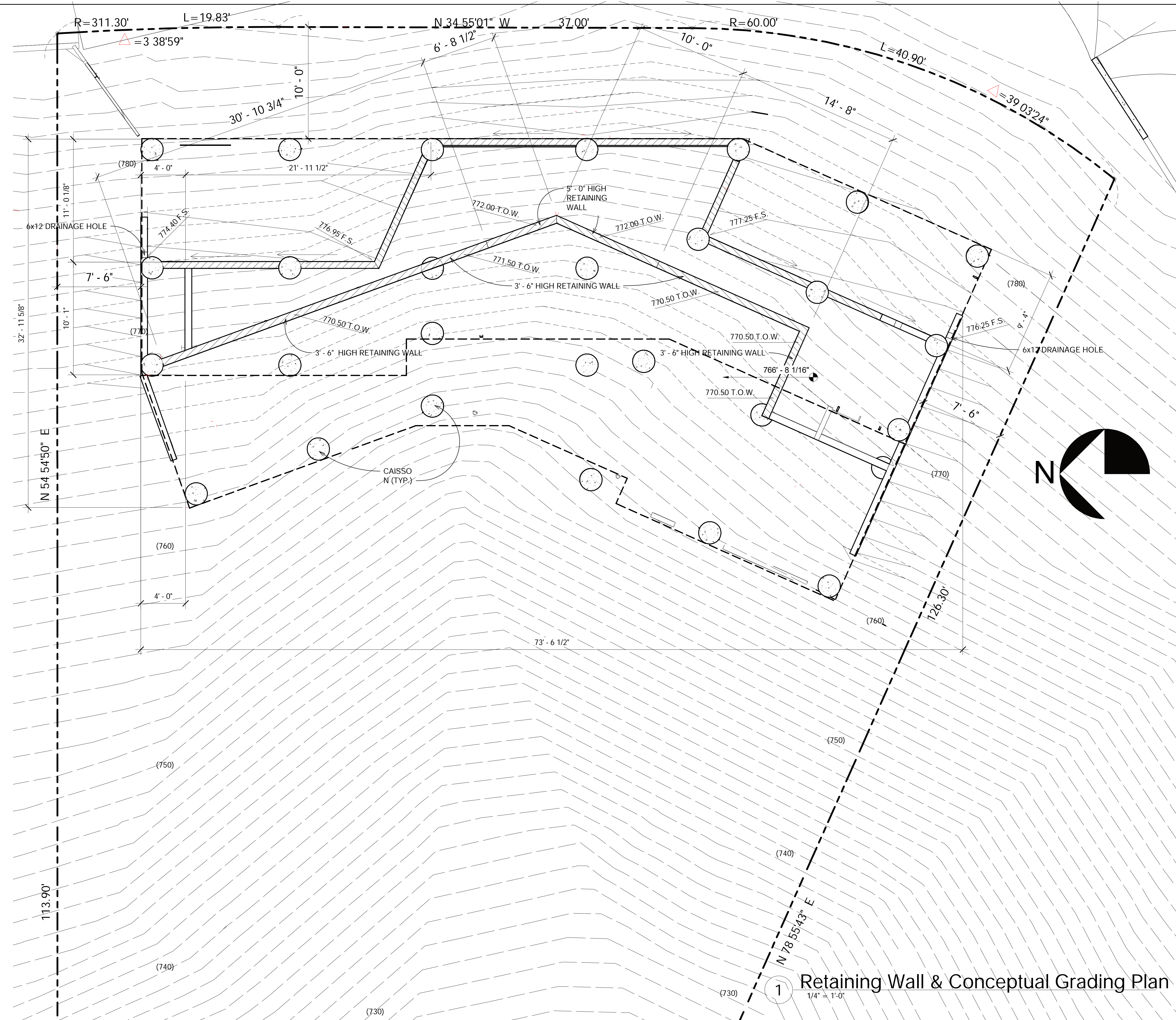
-  (744) EXISTING CONTOUR TO REMAIN
-  (744) EXIST'G CONTOUR TO BE REVISED
-  744 NEW CONTOUR
-  PROPERTY LINE
-  BUILDING LINE
-  DRAINAGE DIRECTION
-  RETAINING BUILDING EXTERIOR WALLS
-  NOTE:  
THIS RETAINING WALL LEGEND DOES NOT INCLUDE BUILDING WALLS THAT RETAIN LOCAL ADJUSTMENT FOR DRAINAGE UP TO 18" OF DIRT
-  NON-RETAINING BUILDING EXTERIOR WALLS
-  NEW CAISSON
-  (E) EXISTING ELEVATION
-  F.F. FINISH FLOOR
-  F.S. FINISH SURFACE
-  T.O.W. TOP OF WALL

**Retaining Wall & Conceptual Grading Plan**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.:	1006

**A100c**

Date: 2/26/2024 4:24:31 PM File: C:\The Architect Group\Projects\2021\2103\_South Pasadena\_Peterson Avenue\_Single Family Residence\01 Current Drawing\2020Plan v10.rvt



**Retaining Wall & Conceptual Grading Plan**  
1/4" = 1'-0"

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena


Owner:

**Ken Wang**  
818.679.0622


**EXTERIOR WALL LIGHT LEGEND**

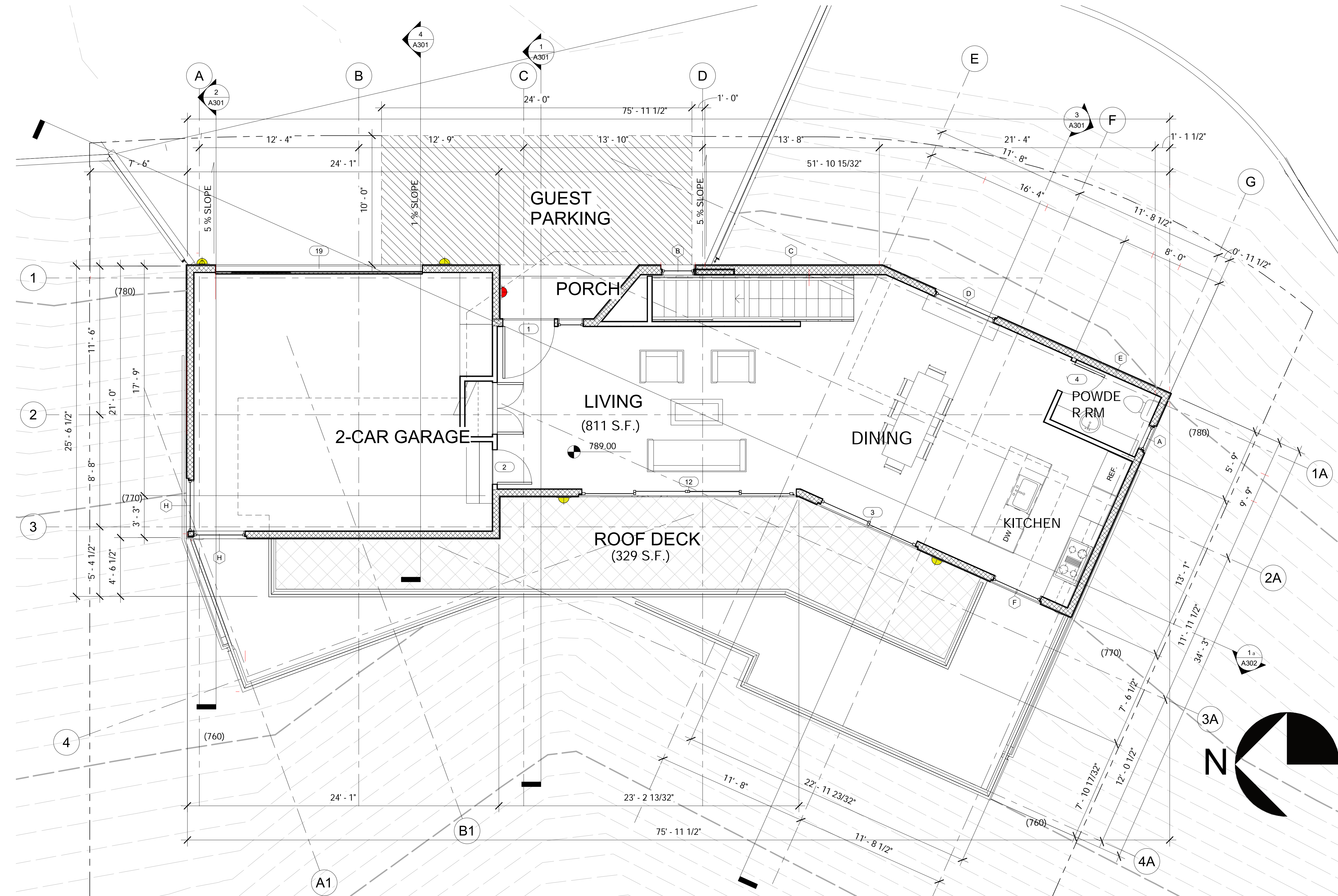
 EXTERIOR WALL LIGHT, TWILIGHT WS-W5516 BY MODERN FORMS, COLOR: BLACK



 EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE



 EXTERIOR CEILING LIGHT, 8" TALL LED OUTDOOR LIGHT BY WESTINGHOUSE, COLOR: BLACK



**1 Upper Level Floor Plan**  
1/4" = 1'-0"

**Upper Level Floor Plan**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.:	1006

**A101**

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**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena


Owner:

**Ken Wang**  
818.679.0622


**EXTERIOR WALL LIGHT LEGEND**

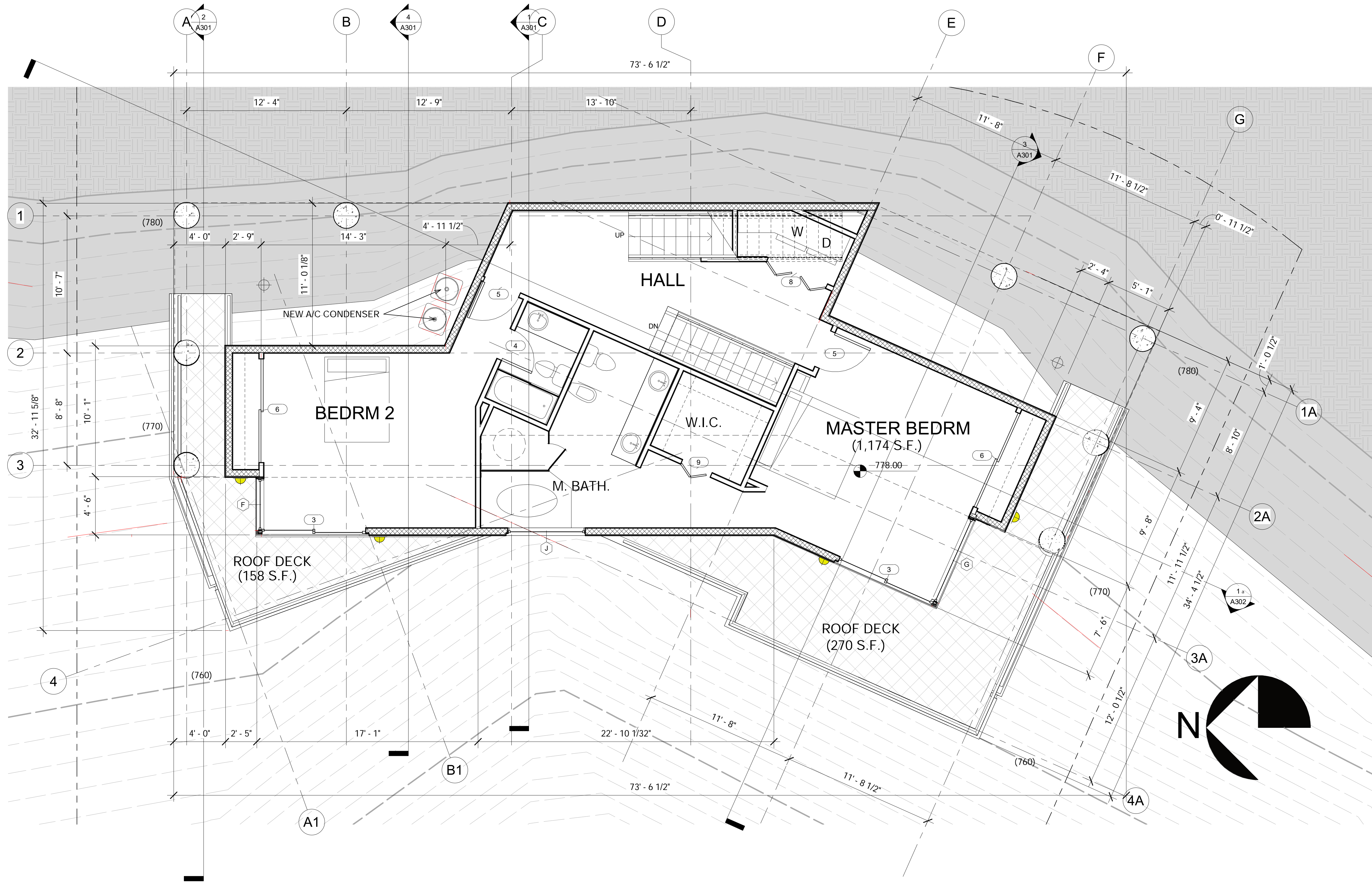
 EXTERIOR WALL LIGHT, TWILIGHT WS-W5516 BY MODERN FORMS, COLOR: BLACK



 EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE



 EXTERIOR CEILING LIGHT, 8" TALL LED OUTDOOR LIGHT BY WESTINGHOUSE, COLOR: BLACK



**1 Middle Level Floor Plan**  
1/4" = 1'-0"

**Middle Level Floor Plan**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

**A102**

Revisions	By	Revisions	By

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

**EXTERIOR WALL LIGHT LEGEND**

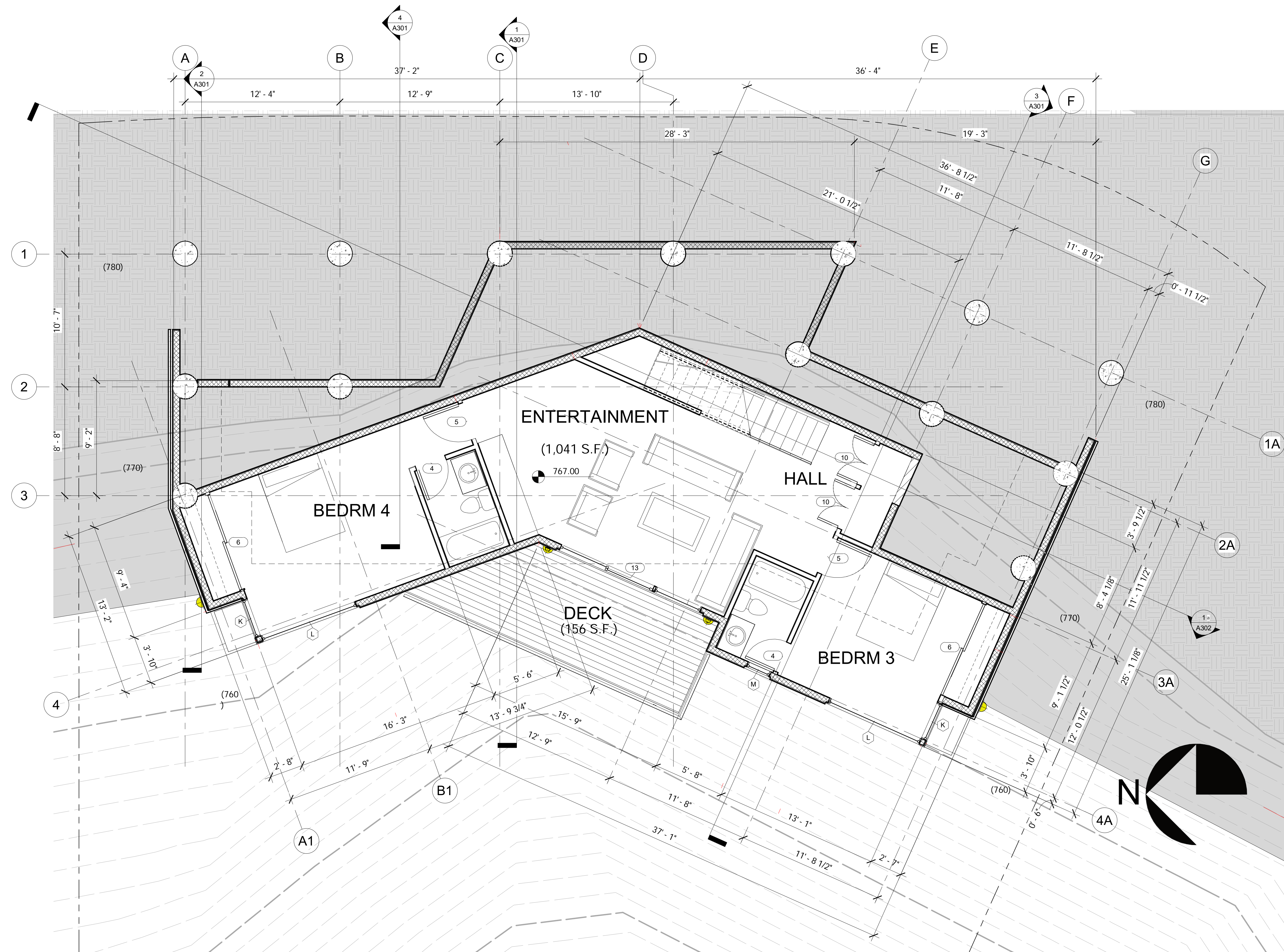
EXTERIOR WALL LIGHT, TWILIGHT WS-W5516 BY MODERN FORMS, COLOR: BLACK



EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE



EXTERIOR CEILING LIGHT, 8" TALL LED OUTDOOR LIGHT BY WESTINGHOUSE, COLOR: BLACK



**1 Lower Level Floor Plan**  
1/4" = 1'-0"

**Lower Level Floor Plan**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

**A103**

Revisions	By	Revisions	By

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622



**1 Roof Plan**  
1/4" = 1'-0"

**Roof Plan**

Scale: 1/4" = 1'-0"  
Drawn: Author  
Checked: Checker  
Date: April 25, 2023  
Job No. 1006

**A104**

Revisions	By	Revisions	By

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Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

**ELEVATION FINISH NOTE**

- 1 EXTERIOR STUCCO, (SUPER FINE FINISH), COLOR: P-810 IRONSTONE (BY MERLEX STUCCO)
- 2 COMPOSITE HORIZONTAL SIDING 6" PROFILE BY RESYSTA. COLOR: C26 RUST
- 3 STONE VENEER BY CORONADO STONE, EASTERN MOUNTAIN LEDGE PATTERN., COLOR: MADISON COUNTY
- 4 MILGARD FIBERGLASS WINDOW, ULTRA SERIES, COLOR: BARK
- 5 MILGARD FIBERGLASS PATIO SLIDING DOOR, ULTRA SERIES, COLOR: BARK
- 6 3'-6" HIGH HORIZONTAL STEEL PLATE GUARDRAIL, PAINTED FINISH, COLOR: BANK VAULT DE6383 BY DUNN EDWARDS
- 7 ASPHALT ROOF SHINGLE BY GAF "TIMBERLINE" ROYAL SOVEREIGN. COLOR: SLATE
- 8 ENTRY DOOR IN SWING DOOR SINGLE PANEL WITH SIDELITE 48 X 96 DOOR MODEL GD-PVT-A3 1SL18 48X96 BY GLENVIEW DOORS. COLOR: MAHOGANY WOOD DARK MAHOGANY FINISH
- 9 MODERN WOOD GARAGE DOOR BY EMILIO GARAGE DOOR ENGINEERED MAHOGANY, STAIN GRADE WITH FROSTED GLASS. COLOR: SEMI-TRANSPARENT HICKORY BY GENERAL FINISH
- 10 2'-0" DIA. CAISSON, EXPOSED CONCRETE FINISH
- 11 EXTERIOR STUCCO, (SUPER FINE FINISH), COLOR: P-2090 THUNDER SKY (BY MERLEX STUCCO)
- 12 EXTERIOR WALL LIGHT, TWILIGHT WS-W5516 BY MODERN FORMS, COLOR: BLACK
- 13 EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE



**1 East Elevation**  
3/16" = 1'-0"



**2 South Elevation**  
3/16" = 1'-0"

**East & South Elevations**

Scale:	As indicated
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

**A201**

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Project:

## WANG'S RESIDENCE

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

### ELEVATION FINISH NOTE

- 1 EXTERIOR STUCCO, (SUPER FINE FINISH), COLOR: P-810 IRONSTONE (BY MERLEX STUCCO)
- 2 COMPOSITE HORIZONTAL SIDING 6" PROFILE BY RESYSTA. COLOR: C26 RUST
- 3 STONE VENEER BY CORONADO STONE, EASTERN MOUNTAIN LEDGE PATTERN., COLOR: MADISON COUNTY
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- 12 EXTERIOR WALL LIGHT, TWILIGHT WS-W5516 BY MODERN FORMS, COLOR: BLACK
- 13 EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE



1 West Elevation  
3/16" = 1'-0"



2 North Elevation  
3/16" = 1'-0"

### West & North Elevations

Scale:	As indicated
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

A202



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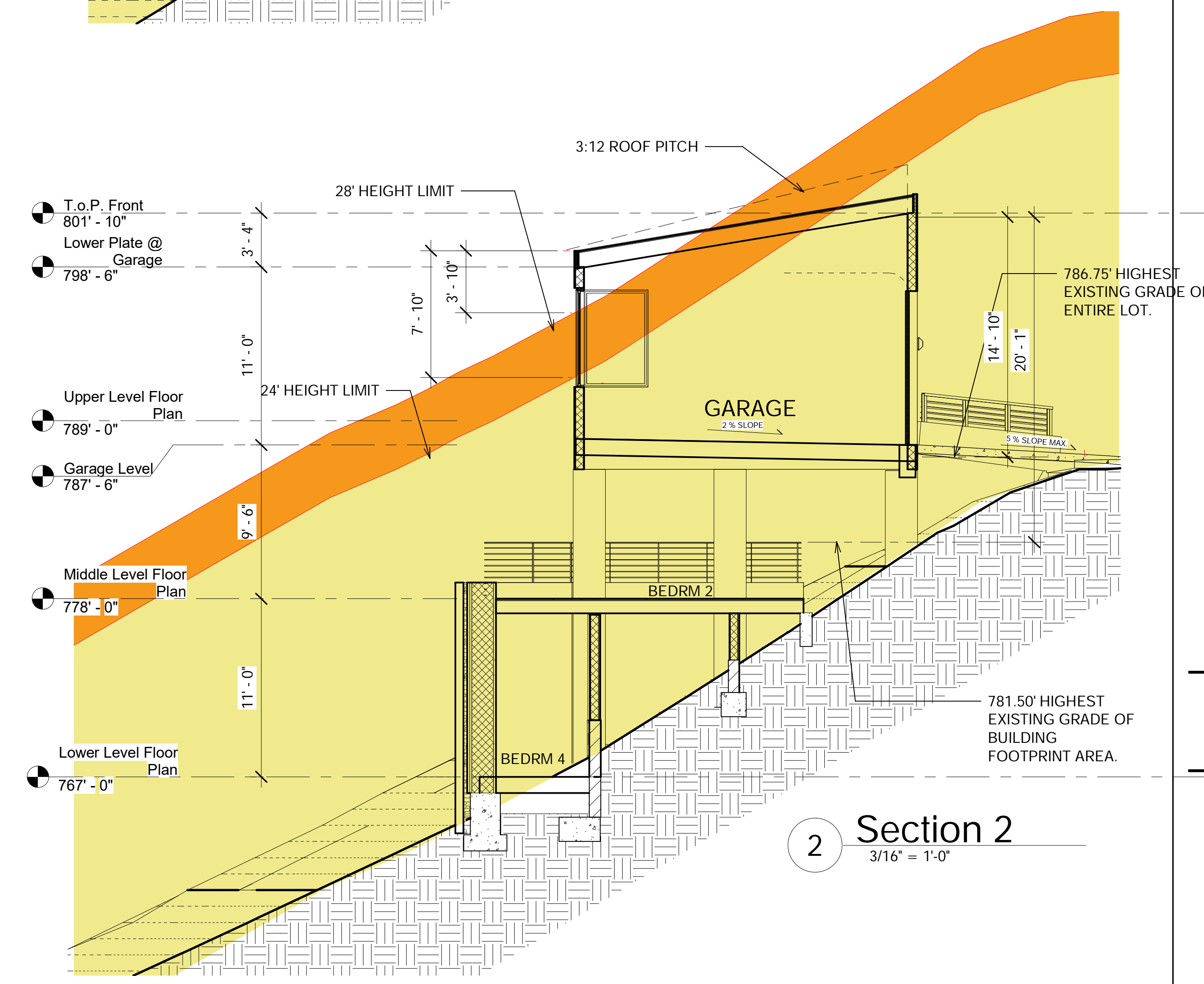
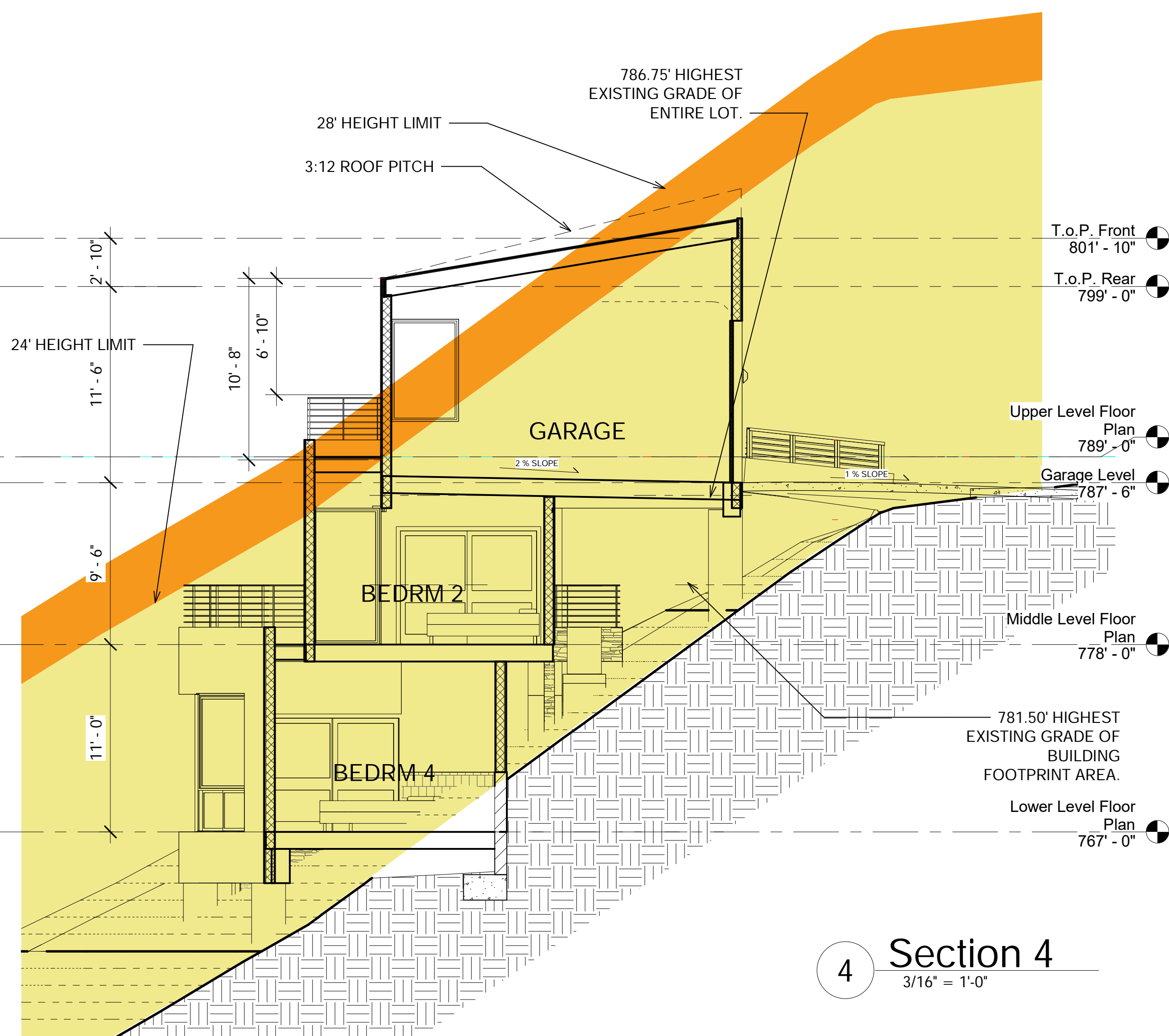
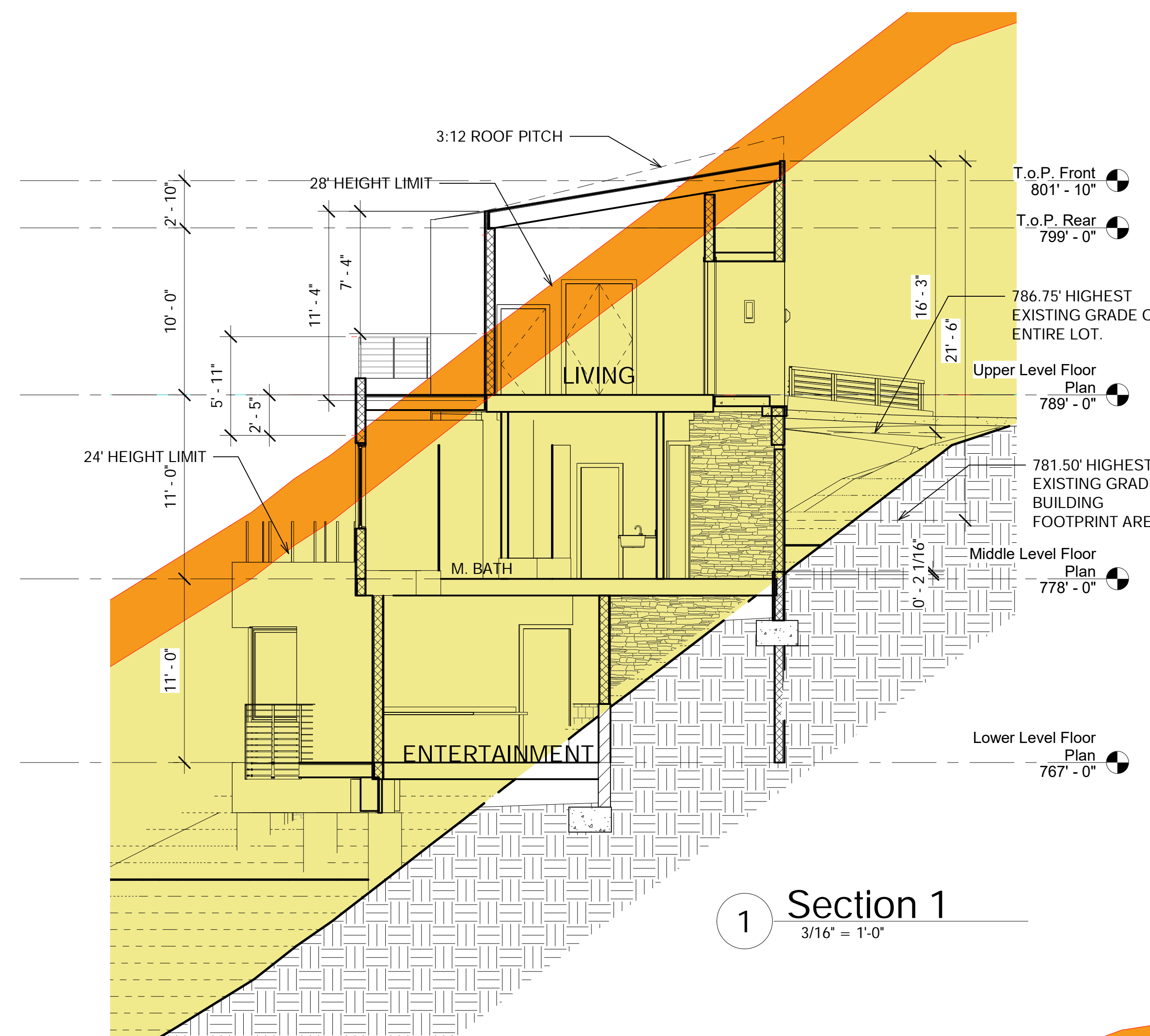
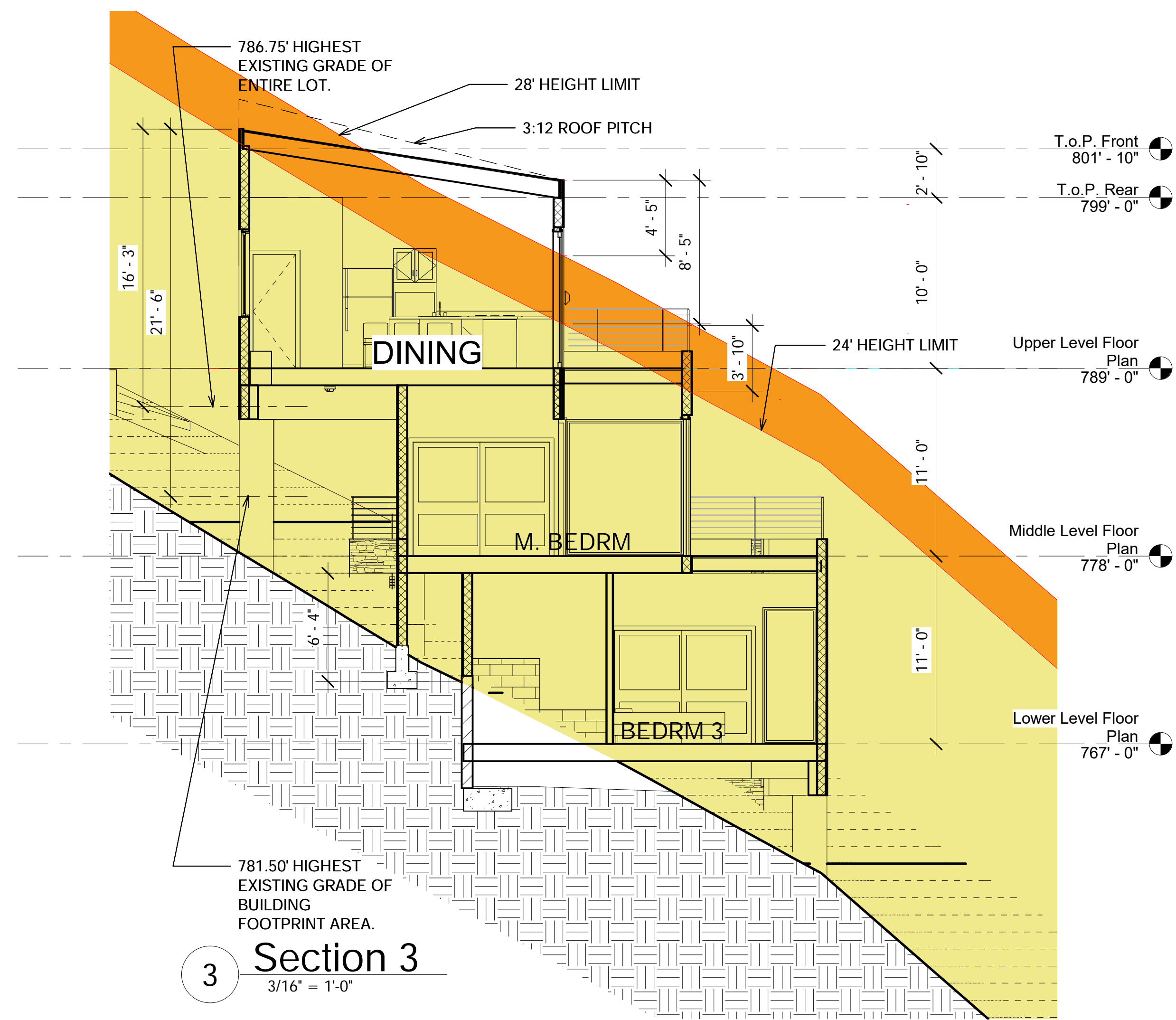
Project:

**WANG'S RESIDENCE**

APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622



Sections

Scale:	3/16" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.:	1006

A301

File: C:\The Architect Group\Projects\2021\103\_South Pasadena\_Peterson Avenue\_Single Family Residence\01 Current Drawing\2020\Plan V10.rvt  
 Date: 2/26/2024 4:24:51 PM

Revisions	By	Revisions	By

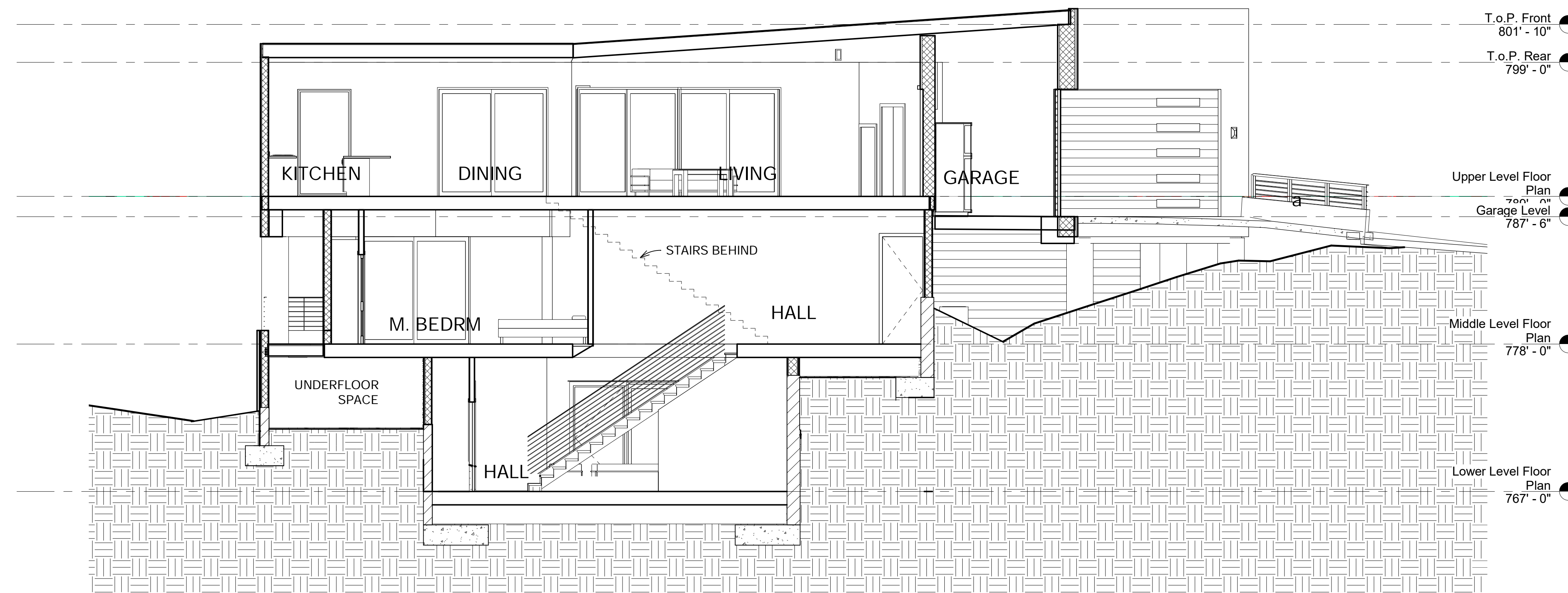
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Project:

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APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622



**1a Section 1a**  
3/16" = 1'-0"

**Section**

Scale: 3/16" = 1'-0"  
Drawn: Author  
Checked: Checker  
Date: April 25, 2023  
Job No. 1006

**A302**

Revisions	By	Revisions	By

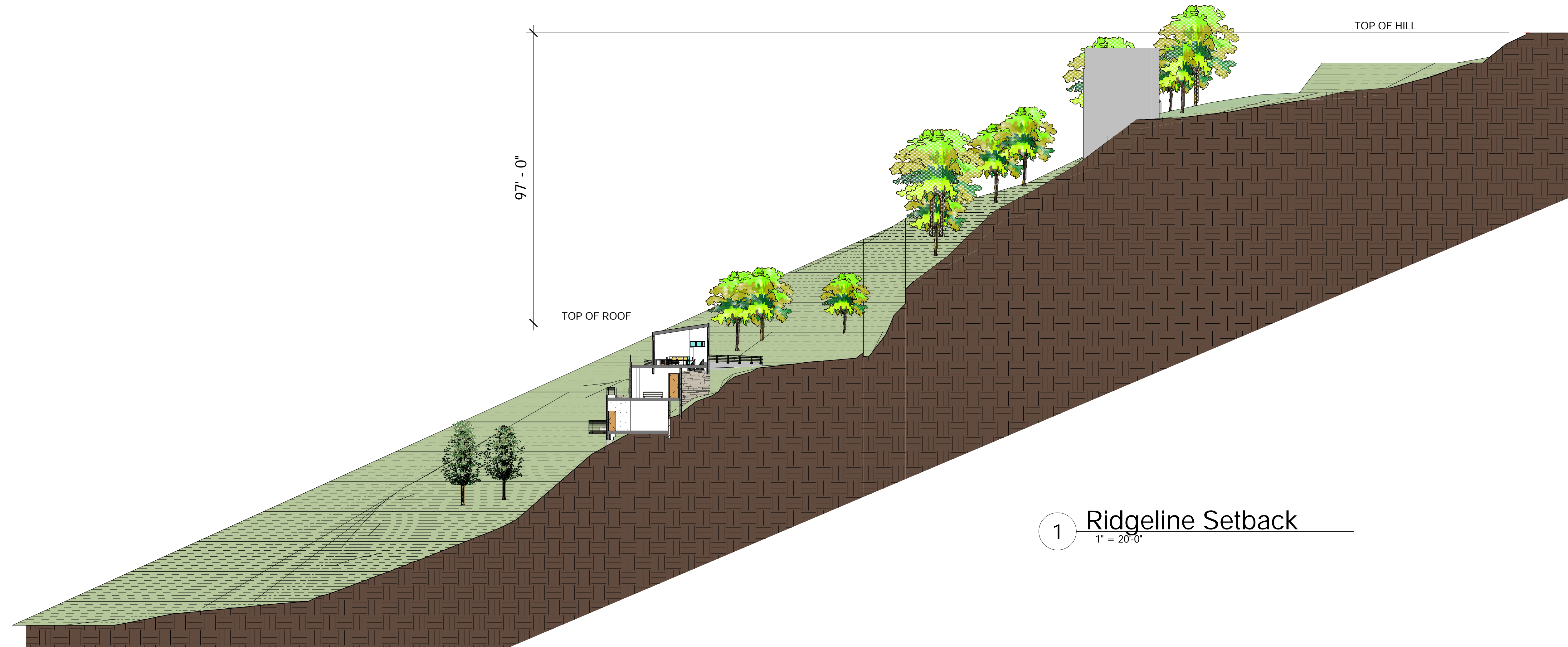
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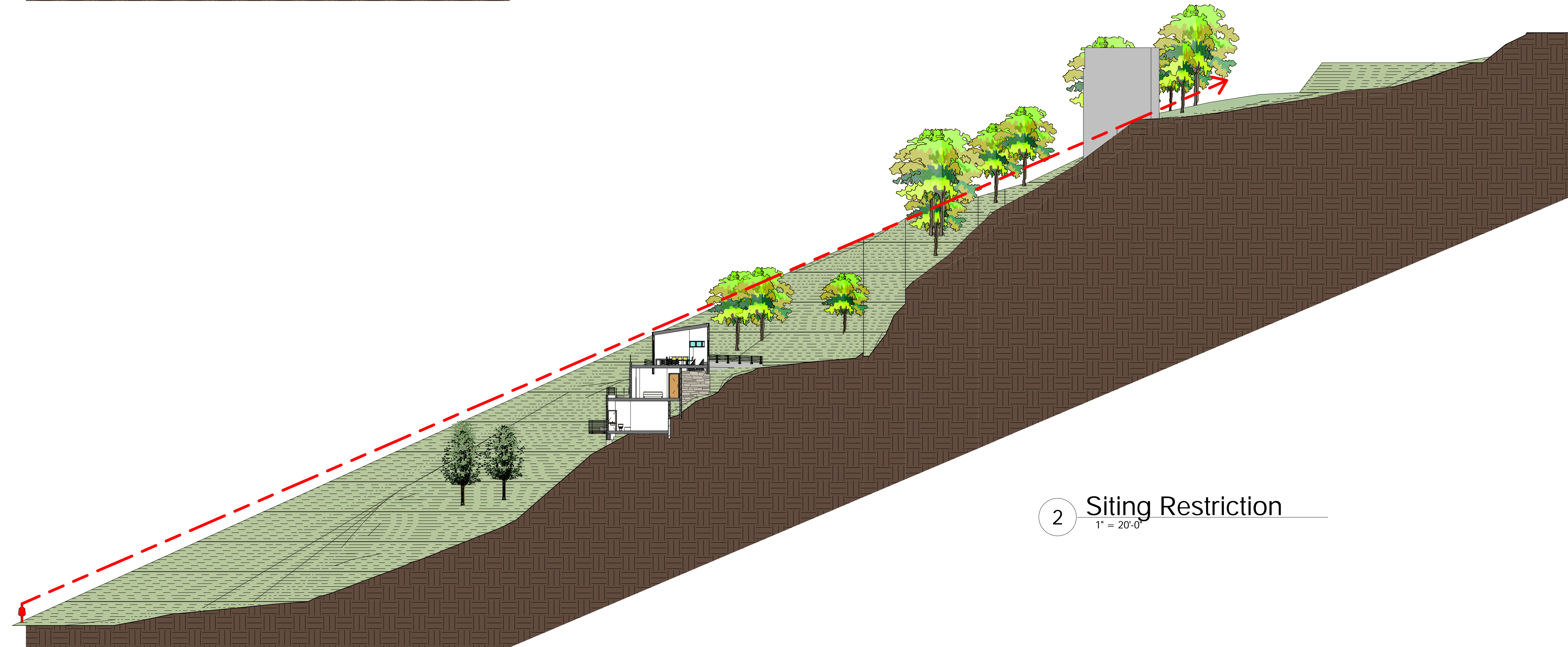
**WANG'S RESIDENCE**  
APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622



1 Ridgeline Setback  
1" = 20'-0"



2 Siting Restriction  
1" = 20'-0"

**Ridgeline Setback & Siting Restriction**

Scale:	1" = 20'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.:	1006

A303



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Project:

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APN 5308-031-042  
Peterson Avenue, South Pasadena

Owner:

**Ken Wang**  
818.679.0622

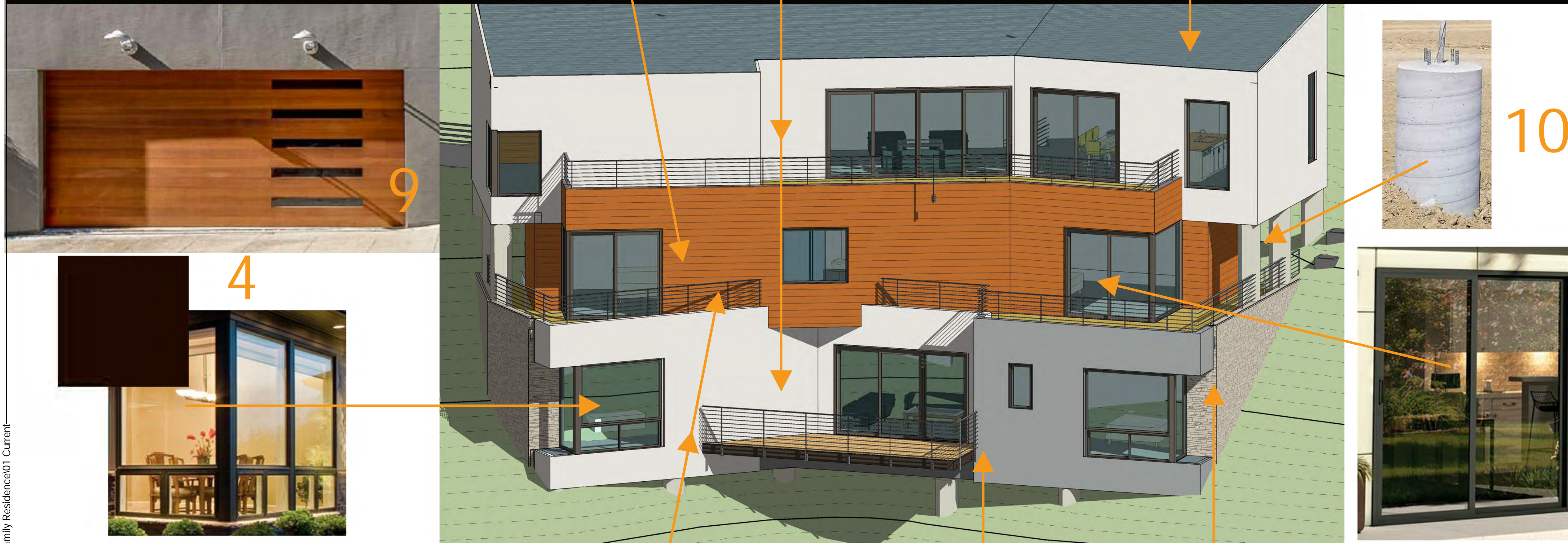
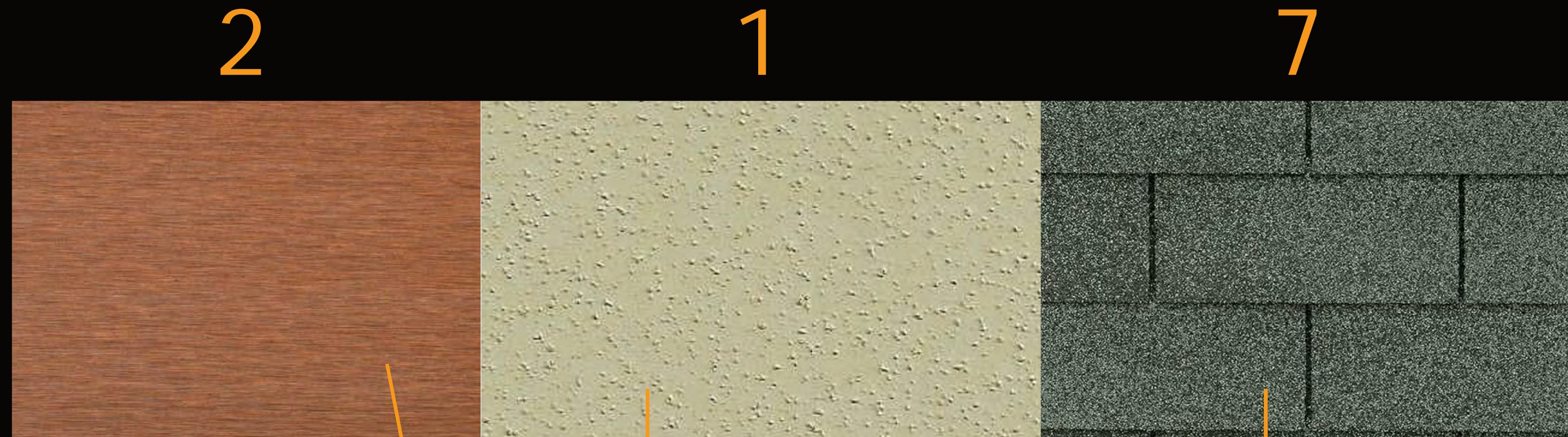
**ELEVATION FINISH NOTE**

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- 13 EXTERIOR WALL LIGHT, MAGLEV WS-W24110 BY MODERN FORMS, COLOR: WHITE

**Material Board**

Scale:	1/4" = 1'-0"
Drawn:	Author
Checked:	Checker
Date:	April 25, 2023
Job No.	1006

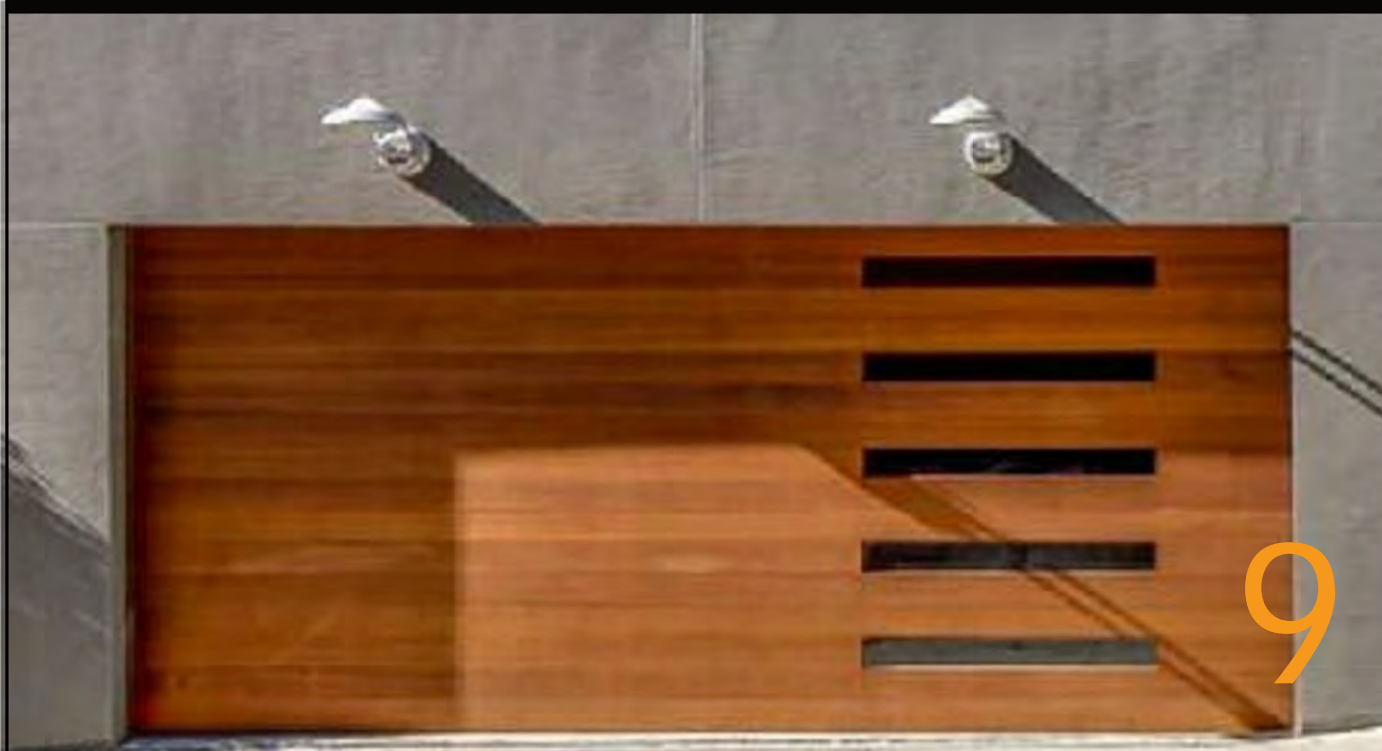
**A700**



2

1

7



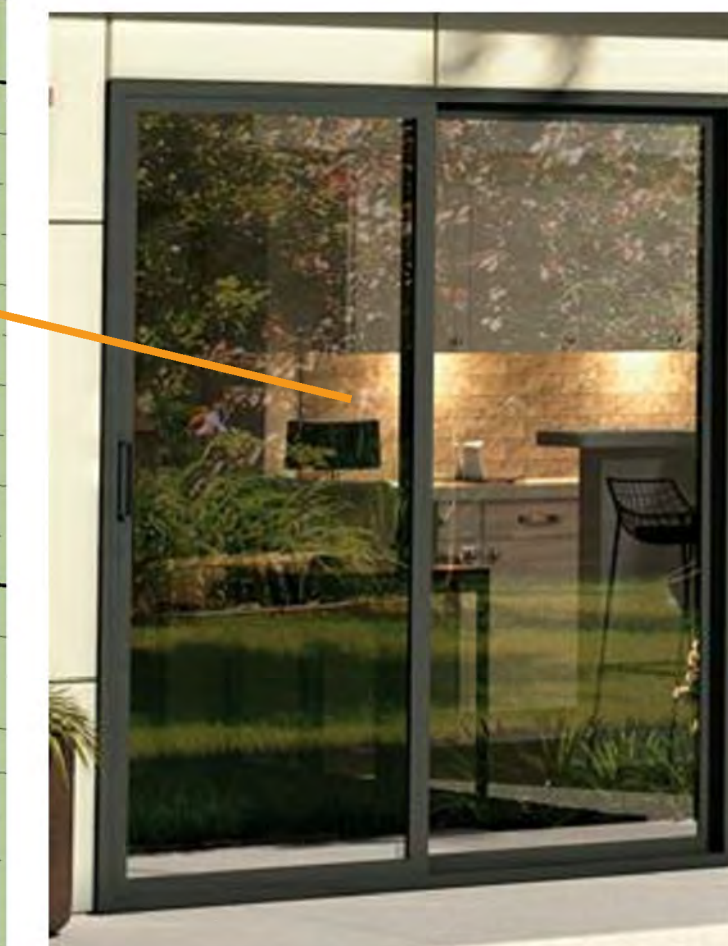
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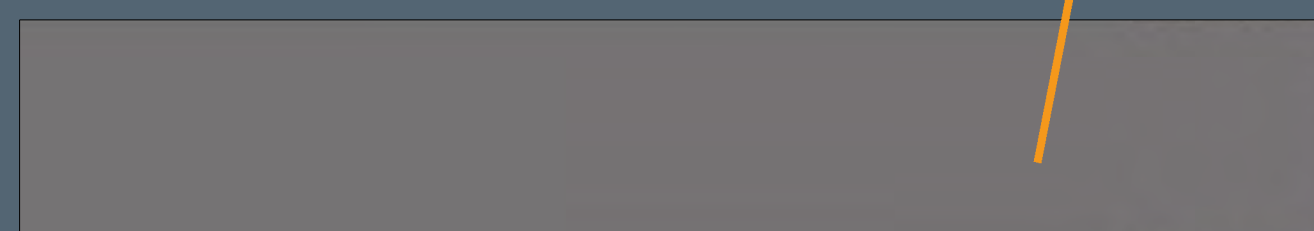
4



10



5



6



11



3



Ultra™ Series | C650 Fiberglass Windows & Patio Doors Architectural Manual

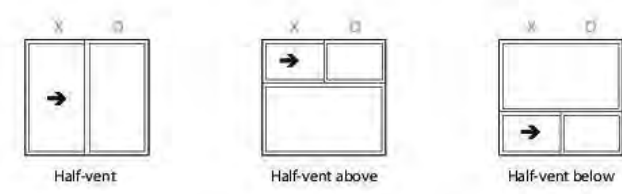
Frame Colors

Exterior Frame Colors - Choose white or color-matched interiors



Horizontal Sliding Window

Configurations



Minimum/Maximum Sizes

- HALF-VENT - Min 2'1" Max 6'6"
HALF-VENT ABOVE - Min 2'2" Max 6'6"
HALF-VENT BELOW

Ultra™ Series Performance Ratings

Table with columns: Window Type, Series, U-Value, R-Value, Infiltration, Condensation Risk, Air Leakage, Solar Heat Gain Coefficient, Visible Transmittance, Min. Depth, Max. Depth, Min. Height, Max. Height, Min. Width, Max. Width

Ultra™ Series | C650 Windows and Doors Acoustical Ratings

Table with columns: Operating Style, Series Numbers, Glass 1, Glass 2, Spacer, STC, OITC, Test Date, Test Number

Ultra™ Series | C650 Windows and Doors Acoustical Ratings

Table with columns: Operating Style, Series Numbers, Glass 1, Glass 2, Spacer, STC, OITC, Test Date, Test Number



SPECIFICATION SHEET

Item Number 6113900
Dimmable LED Wall Fixture Textured White Finish White Glass

Specifications

- Height: 7.75"
Diameter: 7.75"
Back Plate: D: 7.75"
Includes 12 Watt Integrated LED
Hours: 50000
Life (years): 45.6
Fixture Lumens: 1100
Kelvin: 3000
Equivalent Incandescent Wattage: 75W



Installation
Refer to instruction manual for installation and additional warnings. Consult a qualified electrician if unsure how to proceed.

Warranty Information - 5 Year Limited Warranty
This Westinghouse Lighting Fixture is warranted against defects in material and workmanship for a period of Five Years from purchase date.

Specifications are subject to change without notice, please visit www.westinghouselighting.com for latest information.

Westinghouse and Westinghouse are trademarks of Westinghouse Electric Corporation. Used under license by Westinghouse Lighting. All Rights Reserved.



LED OUTDOOR LIGHT\_BY WESTINGHOUSE



800.545.0367
www.glenviewdoorscalifornia.com



GD-PVT-A3 1SL18 48X96

FRONT DOOR • MODERN EURO TECHNOLOGY • PIVOT COLLECTION • CUSTOM

Shown in Oak Wood Veneer with Light-Loft Finish • External Dimensions: 69-3/4 x 99-1/2"



Project:
Location:
Fixture Type:
Catalog Number:



Twilight WS-W5516

PRODUCT DESCRIPTION
Warning light of day, indirect LED illumination gives the illusion of twilight. Glare free illumination with ambient and down lighting for safety, security and architectural accent.

FEATURES

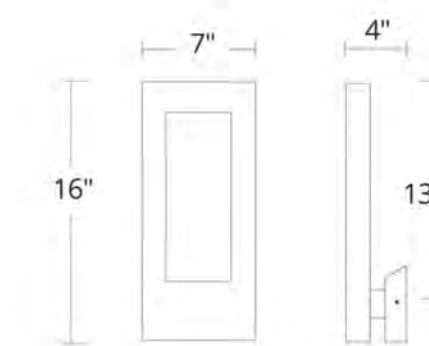
- ACLED driverless technology
Up and down illumination

SPECIFICATIONS

Rated Life: 50000 Hours
Standards: ETL, cETL, Wet Location Listed, IP65, Title 24 JAB, 2019 Compliant
Input: 120 VAC, 50/60Hz
Dimming: ELV
Color Temp: 3000K
CRI: 90
Construction: Aluminum hardware

REPLACEMENT PARTS

RPL-GLA-5516-01 - Side Glass
RPL-GLA-5516-02 - Bottom Glass



WS-W5516

Table with columns: Model & Size, Color Temp, Finish, LED Watts, LED Lumens, Delivered Lumens

Example: WS-W5516-RZ
For custom requests please contact custom@modernforms.com

ModernForms.com | Phone: (866) 810-6615 | Fax: (800) 526-2285
Central Distribution Center: 1500 Distribution Ct., Lithia Springs, GA 30122
Western Distribution Center: 1750 Archibald Avenue, Ontario, CA 91760

MODERN FORMS

TWILIGHT\_BY MODERN FORMS

Project:
Location:
Fixture Type:
Catalog Number:



Maglev WS-W24110

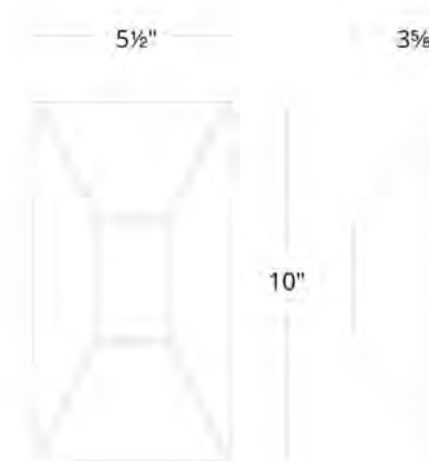
PRODUCT DESCRIPTION
An ultra-functional balanced sconce, this LED wall luminaire employs an etched glass diffuser that delivers interest generating bidirectional illumination. ADA compliance allows usage in high traffic, hospitality and light commercial spaces. 3 CCT's available for customized selection. Mounts in all orientations.

FEATURES

- ACLED driverless technology
Up and down illumination
Built in color temperature adjustability. Switch from 3000K/3500K/4000K

SPECIFICATIONS

Rated Life: 50000 Hours
Standards: ETL, cETL, Wet Location Listed, IP65, Title 24 JAB, 2019 Compliant
Input: 120 VAC, 50/60Hz
Dimming: ELV, 100-10%/TRAC: 100-10%
Mounting: Can be mounted on wall in all orientations
Color Temp: 4000K, 3500K, 3000K
CRI: 90
Construction: Extruded aluminum body with etched glass diffuser



WS-W24110

Table with columns: Model & Size, Color Temp, Finish, LED Watts, LED Lumens, Delivered Lumens

Example: WS-W24110-40-WT
For custom requests please contact custom@modernforms.com

ModernForms.com | Phone: (866) 810-6615 | Fax: (800) 526-2285
Central Distribution Center: 1500 Distribution Ct., Lithia Springs, GA 30122
Western Distribution Center: 1750 Archibald Avenue, Ontario, CA 91760

MODERN FORMS

MAGLEV\_BY MODERN FORMS



235 E MAIN STREET SUITE 200
ALHAMBRA CALIFORNIA 91801
TEL 626-570-9989 FAX 626-570-8104
EMAIL ARCHITECHGROUP@MSN.COM

Revisions table with columns: Revisions, By, Revisions, By

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Project:

WANG'S RESIDENCE

APN 5308-031-042
Peterson Avenue, South Pasadena

Owner:

Ken Wang
818.679.0622

Lights Specification, Window & Door Specification

Scale: 3/4" = 1'-0"

Drawn: Author

Checked: Checker

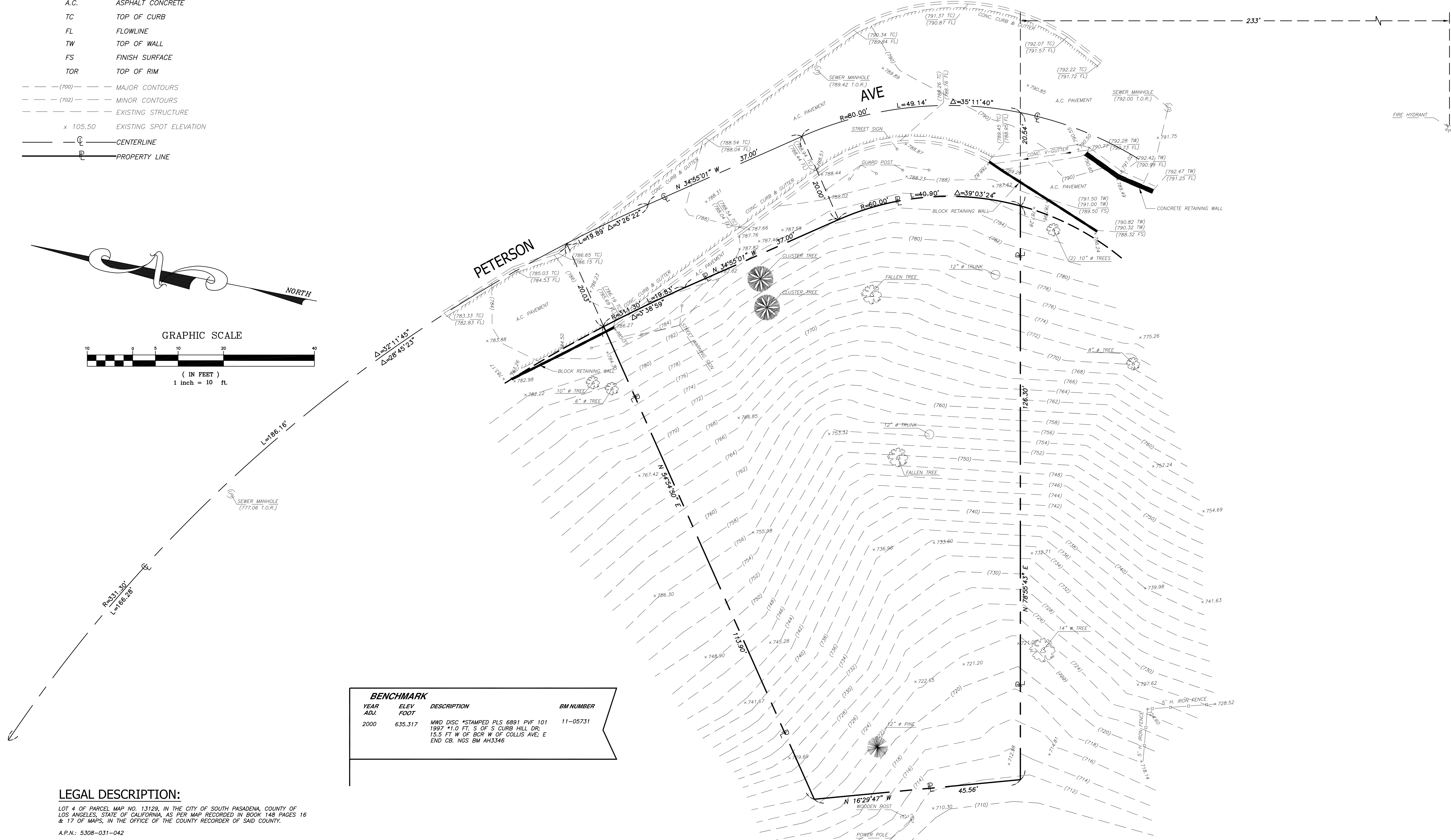
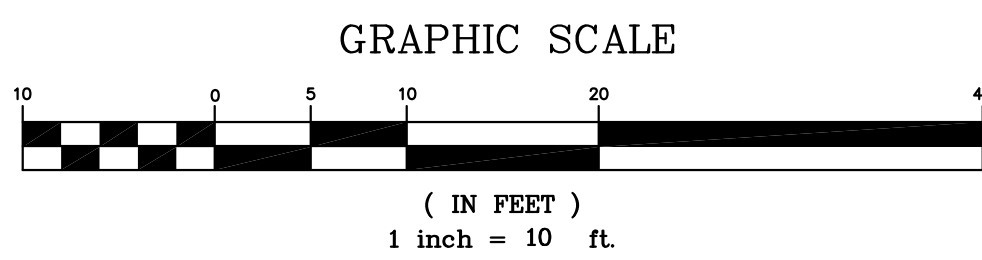
Date: April 25, 2023

Job No. 1006

A701

**LEGEND**

- H. HIGH
- CONC. CONCRETE
- A.C. ASPHALT CONCRETE
- TC TOP OF CURB
- FL FLOWLINE
- TW TOP OF WALL
- FS FINISH SURFACE
- TOR TOP OF RIM
- (700) --- MAJOR CONTOURS
- (702) --- MINOR CONTOURS
- - - - - EXISTING STRUCTURE
- x 105.50 EXISTING SPOT ELEVATION
- C — CENTERLINE
- P — PROPERTY LINE



BENCHMARK			
YEAR ADJ.	ELEV FOOT	DESCRIPTION	BM NUMBER
2000	635.317	MWD DISC *STAMPED PLS 6891 P/VF 101 1997 *1.0 FT. S OF S CURB HILL DR; 15.5 FT W OF BCR W OF COLLIS AVE; E END CB. NGS BM AH3346	11-05731

**LEGAL DESCRIPTION:**  
LOT 4 OF PARCEL MAP NO. 13129, IN THE CITY OF SOUTH PASADENA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 148 PAGES 16 & 17 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.  
A.P.N.: 5308-031-042

**OWNER OR DEVELOPER:**  
**TALAL JAMJOOM**  
PETERSON AVE  
SOUTH PASADENA, CA  
**C/O: KENNETH K. WANG**

**PREPARED BY:**  
**LANDEVELOPMENT ENGINEERING, INC.**  
CIVIL ENGINEERING ASSOCIATE: EDUARDO VILLARRUEL  
7340 E. FLORENCE AVENUE, SUITE 211  
DOWNEY, CA 90240  
(562) 325-8893 TEL  
(562) 309-8161 FAX  
evengineering@yahoo.com

*Kenneth K. Wang*  
ENGINEER  
Kenneth K. Wang RCE 25386  
EXP. 12-31-21  
10-6-21  
Date



**TOPOGRAPHIC SURVEY MAP**  
SITE ADDRESS: PETERSON AVE  
SOUTH PASADENA, CA  
A.P.N. 5308-031-042

**JOB NO:**  
VA021\_125

SHEET 1 OF 1

SCALE: 1"=10'  
DATE: 10-06-21

DRAWN BY: EAV  
CHECKED BY: EV/PBS  
**CITY OF SOUTH PASADENA**

5308-031-042 Peterson Avenue, South Pasadena

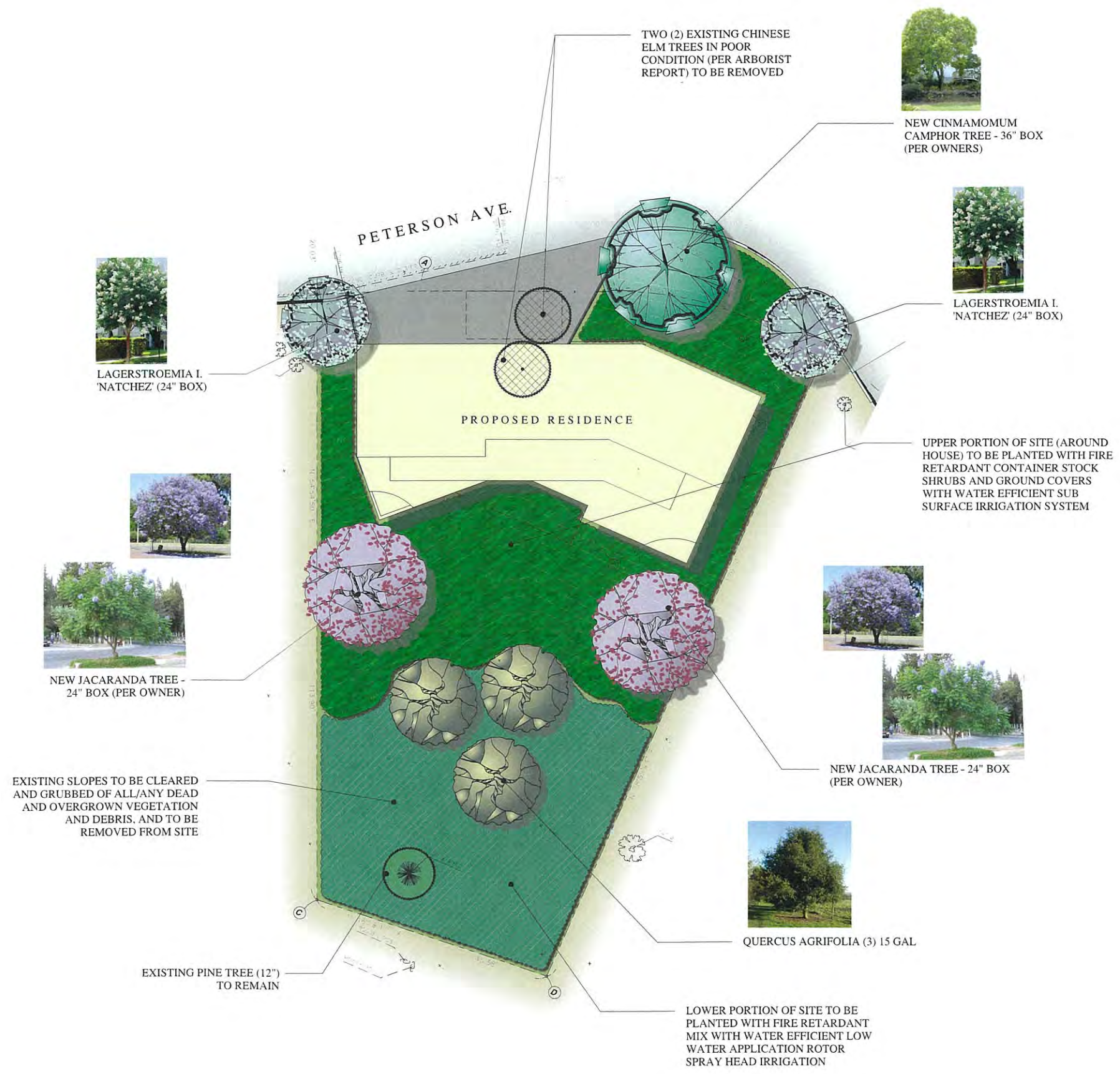


View From The Street Below (Oak Trees Omitted For Clarity)



# **ATTACHMENT 5**

## Preliminary Landscape Plans



- IRRIGATION & PLANTING NOTES:**
1. ALL LANDSCAPE AREAS SHALL RECEIVE A WATER CONSCIOUS AUTOMATIC IRRIGATION SYSTEM. DRIP IRRIGATION SHALL BE UTILIZED WHERE EVER APPROPRIATE.
  2. ALL ON - SITE PLANTING AND IRRIGATION SHALL BE MAINTAINED TO ENSURE WATER EFFICIENCY AND HEALTH APPEARANCE.
  3. ALL UNSIGHTLY SITE APPARATUS SHALL BE SCREENED WITH 5 GALLON SHRUBS OR GREATER (BACK FLOW PREVENTERS, TRANSFORMERS, GAS METERS, AC UNITS ETC.)
  4. THE CRITERIA OF CALIFORNIA MODEL WATER EFFICIENT LANDSCAPE ORDINANCE WILL BE CALCULATED & PROVIDED TO ASSURE COMPLIANCE OF EFFICIENT USE OF WATER WITHIN THE NEW DESIGNED LANDSCAPE PLAN

**FRONTYARD HARDSCAPE NOTE:**  
 PERMEABLE - 1,000 SQ.FT.  
 NON-PERMEABLE - 449 SQ.FT.

**PLANTING LEGEND**

SYM.	BOTANICAL NAME	COMMON NAME	SIZE	W.U.	P.F.	QTY	COMMENTS
<b>TREES:</b>							
	CINNAMOMUM CAMPHORA	CAMPHOR TREE	36" BOX	M	0.5	1	-
	JACARANDA MIMOSIFOLIA	JACARANDA	24" BOX	M	0.5	2	-
	LAGERSTROMIA INDICA	GRAPE MYRTLE	24" BOX	M	0.5	2	'NATCHEZ'
	QUERCUS AGRIFOLIA	COAST LIVE OAK	15 GAL	M	0.5	3	-
<b>SHRUBS:</b>							
	AGAVE SPECIES	AGAVE	5 GAL	L	0.2	QTY	COMMENTS
	ALOE SPECIES	ALOE	5 GAL	L	0.2	QTY	COMMENTS
	BOUGAINVILLEA SP.	BOUGAINVILLEA	5 GAL	L	0.2	QTY	COMMENTS
	CISTUS SPECIES	ROCKROSE	5 GAL	L	0.2	QTY	COMMENTS
	ELAEGNIUS PUNGENS	SILVERBERRY	5 GAL	M	0.5	QTY	COMMENTS
	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL	L	0.2	QTY	COMMENTS
	KNIPHOFIA UVARIA	RED-HOT POKER	5 GAL	L	0.2	QTY	COMMENTS
	MIMULUS SPECIES (DIPLACUS)	MONKEY FLOWER	5 GAL	L	0.2	QTY	COMMENTS
	PHOTNOA FRASERI	PHOTINIA	5 GAL	M	0.5	QTY	COMMENTS
	WESTRINGIA FRUTICOSA	COAST ROSEMARY	5 GAL	M	0.5	QTY	COMMENTS
<b>GROUNDCOVERS:</b>							
	MYOPORUM PARVIFOLIUM	MYOPORUM	5 GAL	L	0.2	QTY	COMMENTS
	SENECIO SERPENS	BLUE CHALKSTICKS	5 GAL	L	0.2	QTY	COMMENTS

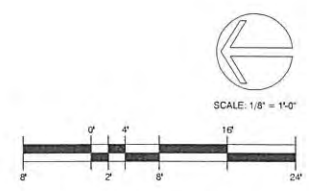
**NATIVE GRASSLAND MIX - HYDROSEED**

SPECIES	COMMON NAME	BULK #/acre	MIN % PLS*
<i>Muhlenbergia microspenna</i>	Little milly	4.00	75
<i>Festuca microstachya</i>	Small fescue	6.00	90
<i>Festuca rubra Molate</i>	Molate Red Fescue	8.00	72
<i>Dactyloctenium aegyptium</i>	Slender hairgrass	2.00	70
<i>Dactyloctenium aegyptium</i>	Slender hairgrass	1.00	60
<i>Meica imperfecta</i>	Coast Melic	4.00	60
<i>Stipa legida</i>	Foothill needle grass	3.00	70
<i>Stipa pulchra</i>	Purple needle grass	6.00	73
		<b>34.00</b>	

\*MIN % PLS (Pure Live Seed) = Seed Purity x Germination Rate  
 Seeding rate: 34 lbs per acre  
 S & S SEEDS - PHONE NUMBER: 805/684-0436 EMAIL: INFO@SSSEEDS.COM WEBSITE: WWW.SSSEEDS.COM

EXISTING SLOPES TO BE CLEARED AND GRUBBED OF ALL/ANY DEAD AND OVERGROWN VEGETATION AND DEBRIS. AND TO BE REMOVED FROM SITE

LOWER PORTION OF SITE TO BE PLANTED WITH FIRE RETARDANT MIX WITH WATER EFFICIENT LOW WATER APPLICATION ROTOR SPRAY HEAD IRRIGATION



# **ATTACHMENT 6**

Tentative Tree Removal Approval



## CITY OF SOUTH PASADENA

1414 MISSION, SOUTH PASADENA, CA 91030

TEL: 626.403.7241 ▪ FAX: 626.403-7240

[WWW.SOUTHPASADENACA.GOV](http://WWW.SOUTHPASADENACA.GOV)

March 26, 2024

Ken Wang  
Peterson Avenue (d308-031-042)  
South Pasadena, CA 91030

Re: Tree Removal/Replacement Application

After reviewing your application, it has been determined to grant you a tentative approval for the removal of two (2) non-native, Chinese Elm (70", 22") trees located on the property subject to the following conditions:

1. The tree removal permit will be granted upon approval of the building permit, as per the South Pasadena Municipal Code (SPMC) Chapter 34.10(a)(5). A tree removal permit must be obtained prior to scheduling any work to remove or transplant a tree. This tentative approval is **exclusively** for the tree removal process and is not to be construed as Project approval.
2. Based on the size of the trees and species, the applicant is required to replace (16) sixteen trees and plant them on the property or on City property prior to project final.
- 3). As per the SPMC 34.10(a)(5), a deposit in the amount of \$6,784 (\$424 per tree) for the required replacement trees, in an amount sufficient to cover the cost of all required replacement trees, as determined by the city's arborist.

If you have any questions, please feel free to contact me at 626-403-7240.

Sincerely,

*Leaonna DeWitt*

Leaonna DeWitt  
Public Works Assistant

cc: H. Ted Gerber, Public Works Director  
Catrina Peguero, Public Works Operations Manager



# **ATTACHMENT 7**

## **Preliminary Geological Investigation Report**



# GeoMat Testing Laboratories, Inc.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

November 23, 2021

Project No.: 21242-01

TO: Mr. Ken Wang  
147 Palatine Drive  
Alhambra, California 91801

SUBJECT: Preliminary Geotechnical Investigation Report, Proposed New Residence, APN 5308-031-042 Peterson Avenue, South Pasadena, California

In accordance with your authorization, GeoMat Testing Laboratories, Inc. (GeoMat) is pleased to present our Preliminary Geotechnical Investigation Report for the proposed single-family residence at APN 5308-031-042 Peterson Avenue, South Pasadena, California. The accompanying report presents a summary of our findings, recommendations, and limitation of work for the proposed site development.

The primary purpose of this investigation and report is to provide an evaluation of the existing geotechnical conditions at the site as they relate to the design and construction of the proposed development. More specifically, this investigation was to address geotechnical conditions for the preliminary design of the foundation for the proposed residence.

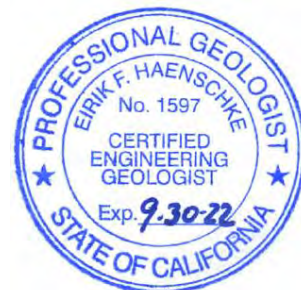
Based on the results of our investigation, the proposed development is feasible from a geotechnical standpoint and it is our professional opinion that the proposed development will not be subject to a hazard from settlement, slippage, or landslide, provided the recommendations of this report are incorporated into the proposed development. It is also our opinion that the proposed development will not adversely affect the geologic stability of the site or adjacent properties provided the recommendations contained in this report are incorporated into the proposed construction.

We appreciate the opportunity to assist you and look forward to future projects. If you should have any questions regarding this report, please do not hesitate to call our office. We appreciate this opportunity to be of service.

Submitted for GeoMat Testing Laboratories, Inc.



Haytham Nabils, GE 2375  
Project Engineer



Eirik Haenschke, CEG 1597  
Engineering Geologist

Distribution: (3) Addressee

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**ATTACHMENTS:**

Figure 1	Site Location Map
Figure 2	Regional Geologic Map
Figure 3	Regional Fault Map
Figure 4	Regional Geologic Hazards Map
Plate 1	Geologic Site Map
Plate 2	Geologic Cross Sections A-A'
Plate 3	Geologic Cross Sections B-B'
Plate 4	Retaining Wall Surcharge Detail
Plate 5	Typical Retaining Wall Drainage Detail

**APPENDIX:**

Appendix A	Selected References
Appendix B	Geotechnical Borehole Logs
Appendix C	Laboratory Test Results
Appendix D	2019 CBC Seismic Design Parameters
Appendix E	Slope Stability Analysis
Appendix F	General Earthwork and Grading Specifications
Appendix G	Slope Maintenance Guidelines



## 1.0 INTRODUCTION

### 1.1 EXISTING SITE CONDITIONS

The subject site is located on the west side of the Hanscom Drive and Peterson Avenue intersection in South Pasadena, California. Access on site is from Peterson Avenue which is a paved road with existing concrete curb and gutter improvements. The geographical relationship of the site and surrounding vicinity is shown on the Site Location Map, Figure 1.

The site is undeveloped consisting mostly of light seasonal grasses and several mature trees. The site is located on a westerly facing slope with gradients generally ranging between 1.2H:1V to 1.8H:1V for a total relief onsite equal to 74 feet.

### 1.2 PROPOSED DEVELOPMENT

We understand that the site is proposed for the development of a single-family residence. It is anticipated that the structure will consist of two to three levels and be supported on deep caisson foundations, retaining walls, and concrete slab-on-grade. We also assume continuous wall loads are not expected to exceed 2 kips per linear foot and isolated column loads of up to 18 kips.

Once the design phase and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Any changes in the design, location or elevation of any structure, as outlined in this report, should be reviewed by this office. GeoMat should be contacted to determine the necessity for review and possible revision of this report.

### 1.3 FIELD WORK

On October 11, 2021 four exploratory test pits were excavated on the site to observe the nature and condition of the onsite soils and bedrock, and to retrieve undisturbed and bulk samples for laboratory testing. The test pits ranged in depth from approximately 5' to 12' and were logged in the field by our certified engineering geologist. Locations of the exploratory test pits are presented on Plate 1 and detailed logs of the exploratory test pits are presented in Appendix B of this report.

### 1.4 LABORATORY TESTING

Laboratory tests were performed on selected soil samples. The tests consisted primarily of the following:

- Moisture Content (ASTM D2216)
- Dry Density (ASTM D2937)
- Sieve Analysis (ASTM C136)
- Direct Shear (ASTM D3080)
- Expansion Index (ASTM D4829)
- Soluble Sulfate Content (Extinction/Turbidimetric Method)

The soil classifications are in conformance with the Unified Soil Classifications System (USCS), as outlined in the Classification and Symbols Chart (Appendix B). A summary of our laboratory testing, ASTM designation, and graphical presentation of test results is presented in Appendix C.

## 2.0 GEOTECHNICAL CONDITIONS

### 2.1 SUBSURFACE CONDITIONS

Detailed logs of the exploratory excavations are presented in Appendix B of this report. The earth materials encountered within the exploratory excavations are generally described below. The distribution of soil and bedrock, and bedding structure in the subsurface are illustrated on Geologic Cross Sections A-A', included as Plate 2 and 3. The generalized subsurface profile is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations of samples. Actual soil transitions may vary and are probably more erratic.

#### 2.1.1 Artificial Fill

Artificial (man-placed) fill soils associated with grading for Peterson Road construction appear to have involved filling a pre-existing topographic gully, which traversed westerly to southwesterly through the subject lot from the inside curvature of Peterson Road. Fill soils were encountered beneath the upper portion of the lot to depths ranging up to 12'+ in TP-2 and 9'+ in TP-4, which were positioned over the former gully alignment. The fill consisted of sandy silt to silty sand with numerous siltstone fragments, was generally firm to medium dense in consistency, and dry to slightly moist at the time of subsurface exploration. An interval of minor caving was noted within TP-2 at a depth range of 5' to 7', where the fill consisted predominantly of siltstone fragments with little soil matrix.

#### 2.1.2 Colluvium

Natural colluvial soils were encountered in test pits TP-1 and TP-3, beneath the surface and/or any fill present, and overlying bedrock. The colluvium layer was approximately 2'6" to 3'6" thick where encountered, and consisted of dark brown sandy clayey silt with siltstone fragments.

#### 2.1.3 Bedrock

Native bedrock consisting of tan sandstone and gray siltstone was encountered in the lower portions of test pits TP-1 and TP-3, beneath the colluvium, to the total depths explored. The bedrock was well indurated and well bedded. Bedding structure observed in TP-1 and TP-3, and in isolated outcrops near the lower western limits of the site, exhibited strikes bearing N80E to N85E and dipped 35° to 55° northwesterly. The bedding structure is anticipated to be generally neutral with respect to overall stability of the westerly-descending slope.

### 2.2 GROUNDWATER

No seepage or ground water was encountered within any of the test pit excavations to the total depth explored of 12' beneath the surface. Due to the elevation of the site with respect to natural drainage courses, regional ground water is not expected to be a significant factor during construction of the proposed project.

Please note that the potential for rain or irrigation water locally seeping through from elevated areas and showing up near grades cannot be precluded. Our experience indicates that surface or near-surface groundwater conditions can develop in areas where groundwater conditions did not exist prior to site development, especially in areas where a substantial increase in surface water infiltration results from landscape irrigation. Fluctuations in perched water elevations are likely to occur in the future due to variations in precipitation, temperature, consumptive uses, and other factors including mounding of perched water over bedrock or natural soil. Mitigation for nuisance shallow seeps moving from elevated lower areas will be needed if encountered. These mitigations may include subdrains, horizontal drains, toe drains, french drains, heel drains or other devices.

### 2.3 EXPANSIVE SOIL

Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may result in unacceptable settlement or heave of structures or concrete slabs supported on grade.

Based on laboratory testing, the upper foundation soil onsite is expected to have a medium expansion potential (EI=51), as defined in ASTM D4829. This would require verification subsequent to completion of new footing excavations.

### 2.4 CORROSIVE SOIL

To preliminarily assess the sulfate exposure of concrete in contact with the site soils, a representative soil sample was tested for water-soluble sulfate content. The test results suggest the site soils have a negligible potential for sulfate attack (0.0375 percent) based on commonly accepted criteria. We recommend following the procedures provided in ACI 318-19, Section 19.3, Table 19.3.2.1 for exposure “S0”. We recommend Type II cement for all concrete work in contact with soil.

Ferrous metal pipes should be protected from potential corrosion by bituminous coating, etc. We recommend that all utility pipes be nonmetallic and/or corrosion resistant. Recommendations should be verified by soluble sulfate and corrosion testing of soil samples obtained from specific locations at the completion of rough grading.

### 2.5 SEISMIC DESIGN PARAMETERS

Based on current standards, the proposed development is expected to be designed in accordance with the requirements of the 2019 California Building Code (CBC). The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height.

Based on the soils encountered in the exploratory borehole within the subject site and with consideration of the geologic units mapped in the area, it is our opinion that the site soil profile corresponds to Site Class C in accordance with Section 1613.2.2 of the California Building Code (CBC 2019) and Chapter 20 of ASCE/SEI 7-16.

We have downloaded the seismic design parameters in accordance with the provisions of the current California Building Code (CBC, 2019) and ASCE/SEI 7-16 Standard using the Structural Engineers Association of California, OSHPD Seismic Design Maps Web Application (<https://seismicmaps.org>). The mapped seismic parameters are attached to this report in Appendix D.

Parameter	ASCE 7-16	2019 CBC	Coefficient	Value
0.2-second Period MCE	Figure 22-1	Figure 1613.2.1(1)	S <sub>S</sub>	2.108
1.0-second Period MCE <sub>R</sub>	Figure 22-2	Figure 1613.2.1(2)	S <sub>1</sub>	0.726
Soil Site Class	Figure 20.3-1	Section 1613.2.2	Site Class	C
Site Coefficient	Figure 11.4-1	Section 1613.2.3(1)	F <sub>a</sub>	1.200
Site Coefficient	Figure 11.4-2	Section 1613.2.3(2)	F <sub>v</sub>	1.400
Adjusted MCE Spectral Response Parameters	Equation 11.4-1	Equation 16-36	S <sub>MS</sub>	2.529
	Equation 11.4-2	Equation 16-37	S <sub>M1</sub>	1.017
Design Spectral Acceleration Parameters	Equation 11.4-3	Equation 16-38	S <sub>DS</sub>	1.686
	Equation 11.4-4	Equation 16-39	S <sub>D1</sub>	0.678

## 2.6 REGIONAL GEOLOGY

The subject property consists of an undeveloped residential lot situated on a slope descending westerly from Peterson Road, in the city of South Pasadena. According to published geologic mapping (Dibblee, 1989, Figure 2) the lot is underlain by siltstone, siliceous shale and sandstone bedrock of the Monterey Formation, of Miocene geologic age. Bedding structure within the bedrock is indicated to dip northerly to northeasterly at inclinations of 21°.

## 2.7 REGIONAL FAULTING AND SEISMIC HAZARDS

There are no mapped active or potentially active faults with surface expression that trend through or are adjacent to the subject property based on the references cited. The site does not lie within a designated Alquist-Priolo Earthquake Fault Zone (CDMG, 2000).

According to the Fault Activity Map of California (2010), the closest Holocene-active fault system to the site is the Raymond fault zone, located approximately 1 mile north of subject property (Figure 3). The Hollywood-Raymond fault system, capable of producing an M6.5 earthquake, extends along the southern edge of the Santa Monica Mountains, coalescing with the active Malibu Coast fault to the west. Portions of the Santa Monica-Hollywood fault trace are indicated to be Holocene-active and are designated as Alquist-Priolo Earthquake Fault Zones (CDMG, 2000 and 2014).

According to the Fault Activity Map of California (2010), the site also lies approximately 8 miles southwest of the Sierra Madre fault zone, capable of producing an M6-7 earthquake (Figure 3).

Based on the Seismic Hazard Zone Report for the Los Angeles 7.5-Minute Quadrangle (1998), peak ground accelerations anticipated at the site are reported to be 0.50g for firm rock conditions, with a 10% probability of being exceeded in 50 years. The estimated ground shaking is derived from statewide seismic hazard evaluation released cooperatively by the California Division of Mines and Geology and United States Geological Survey based on long-term slip rate, maximum earthquake magnitude and rupture geometry, and historical seismicity associated with known fault sources in the site vicinity.

The subject site, as is the case with most of the tectonically-active Southern California area, will be periodically subject to moderate to intense earthquake-induced ground shaking from nearby faults. Considerable damage can occur to the site and structural improvements during a strong seismic event. Neither the location nor magnitude of earthquakes can accurately be predicted at this time.

### 2.7.1 Secondary Seismic Hazards

According to the Seismic Hazard Zones Map (see Figure 4) published by the State of California, Division of Mines and Geology, Los Angeles Quadrangle (1998), the site **is not** indicated to lie within a zone of potential seismic liquefaction hazard. Additionally, the site **is not** indicated to lie within a zone considered to be potentially susceptible to seismically-induced slope failure.

## 2.8 SLOPE STABILITY

The stability of the slope configuration at the subject site was evaluated by analyzing the elevations obtained from the Slope Analysis Survey, prepared by Matthew P. Arrington, PLS (dated April 7, 2021) as depicted on our Geologic Site Map on Plate 1 and in our Geotechnical Cross Sections on Plates 2 and 3.

### 2.8.1 Soil Strength Parameters

The bedrock and soil materials onsite will be modeled utilizing ultimate shear strength parameters. The shear strength parameters for the existing bedrock used in the stability analyses were based on laboratory test results of relatively undisturbed soil samples obtained from the onsite material. The following table summarizes the parameters used in the stability analysis.

Analysis Type	Material	Strength Parameter	Friction Angle (°)	Cohesion (psf)	Unit Weight (pcf)
Surficial/Global	Soil	Ultimate Strength	$\phi = 28$	C = 274	$\gamma = 120$
Global	Bedrock	Ultimate Strength	$\phi = 37$	C = 435	$\gamma = 120$

### 2.8.2 Surficial Stability

Surficial stability of the slope was analyzed for the onsite slope assuming an infinite 1H:1V slope with seepage parallel to the slope surface and consistent subsoil profile. The failure plane for this case is parallel to the surface of slope and the limit equilibrium method can be applied readily. The following factor of safety is derived from a homogeneous c- $\phi$  soil based on effective stress analysis. The results of the analyses indicate that the existing slopes have a minimum factor of safety of 1.50 for surficial stability under static condition.

$$\text{Factor of Safety} = \frac{C + H \cdot \gamma_b \cdot \cos^2(\beta) \tan(\phi)}{\gamma_{\text{sat}} \cdot H \cdot \sin(\beta) \cos(\beta)}$$

Where:

H =	4 feet	(saturation zone)
$\gamma_b$ =	58 pcf	(buoyant soil unit weight)
$\gamma_{\text{sat}}$ =	130 pcf	(saturated soil unit weight)
$\beta$ =	33.7 °	(slope angle)

### 2.8.3 Global Stability Analysis

Global stability analysis was performed on the easterly facing slope to evaluate the probable static and dynamic gross stability of the proposed slope configuration. The stability of the slope conditions was analyzed using Bishop's method of slices through the software program Geostase (Gregory Geotechnical v.30.31).

Our analyses indicate that the proposed slope has a minimum factor of safety of 1.53 and 1.11 under static and pseudo-static conditions, respectively. Based on our field observation and slope stability analyses, the existing slopes are considered stable. The results of the slope stability analyses are provided in Appendix E of this report.

Continuing stability of the slope will greatly depend on controlling the water, proper planting and maintaining the drainage for proper functioning. Drainage control measures recommended in this report and the project civil engineer should be implemented during site development.

## 3.0 TENTATIVE RECOMMENDATIONS

### 3.1 SITE PREPARATION

#### 3.1.1 Option 1: Grading Option

All debris, undocumented fill, abandoned utility lines, roots, irrigation appurtenances, underground structures, deleterious materials, etc., should be removed and hauled offsite. Cavities created during site clearance should be backfilled in a controlled manner.

The existing artificial fill onsite is not considered suitable for support of new footings, floor slabs on grade, driveways, hardscape/flatwork, or other exterior site improvements. The existing fill soils should be completely removed and replaced as properly compacted fill to provide support for the proposed slabs, driveway, hardscape, etc.

It is anticipated that the fill removal excavations will need to utilize shoring and/or slot cuts along Peterson Avenue to prevent undermining of the roadway. Additionally, the installation of canyon subdrain(s) will likely be required due to the local topography and subsurface geologic conditions.

This option would also require all existing onsite “non-conforming” slopes to be brought up to the current local governing Building Code standards with retaining walls and grading. The grading will likely consist of a fill slope constructed with a keyway and retaining wall along the western property line and benching into competent native soil as you work up the slope.

Fill to be placed on ground steeper than 5H:1V should be provided at the toe with at least two feet deep keyway. The keyway should be at least one equipment width inclined at rate of two percent inward. All keyways should be observed prior to starting fill slope construction. As fill progresses upslope, graded fill should be benched into competent bedrock. All slopes should be compacted to at least 90 percent of the maximum dry density; to the outer slope face.

We recommend overfilling the slopes and then trimming back to expose compacted engineered fill or backrolling slope face at grade with heavy equipment. It is recommended that all slopes be planted subsequent to construction. As a minimum, Slope Maintenance Guidelines for Homeowners presented in Appendix G should be followed for this purpose.

#### 3.1.2 Option 2: No Grading Option

As an alternative to the excavation and recompaction of the existing fill soils, the proposed residence may be supported on a structural slab and pile foundations extending through the fill and into the underlying bedrock.

This option is only viable if the governing Building Department permits and the owner accepts the risk of some settlement and greater than normal future maintenance on all site improvements that are not supported on pier foundations (concrete hardscape and flatwork improvements, etc.).

### 3.2 EARTHWORK RECOMMENDATIONS

The following recommendations are provided regarding aspects of the anticipated earthwork construction. These recommendations should be considered subject to revision based on additional geotechnical evaluation of the conditions observed by the Geotechnical Engineer during grading operations. All grading should be performed in accordance with our General Earthwork and Grading Specifications presented in Appendix F except as modified within the text of this report.

### 3.2.1 Trench Backfill

All utility trench backfill should be mechanically compacted to the minimum requirements of at least 90 percent relative compaction. Onsite soils derived from trench excavations can be used as trench backfill except for deleterious materials. Soils with sand equivalent greater than 30 may be utilized for pipe bedding and shading. Pipe bedding should be required to provide uniform support for piping. Excavated material from footing trenches should not be placed in slab-on-grade areas unless properly compacted and tested.

### 3.2.2 Compacted Fills/Imported Soils

Any soil to be placed as fill, whether presently onsite or import, should be approved by the soil engineer or his representative prior to their placement. All onsite soils to be used as fill should be cleansed of any roots, or other deleterious materials. Rocks larger than 8-inches in diameter should be removed from soil to be used as compacted fill.

All fills should be placed in 6- to 8-inch loose lifts, thoroughly watered, or aerated to near optimum moisture content, mixed and compacted to at least 90 or 95 percent relative compaction depending on the material (subgrade soil or aggregate base) and application (pavement subgrade, building pad, etc.). This is relative to the maximum dry density determined by ASTM D1557 Test Method.

Any imported soils should be sandy (preferably USCS "SM" or "SW", and very low in expansion potential) and approved by the soil engineer. The soil engineer or his representative should observe the placement of all fill and take sufficient tests to verify the moisture content and the uniformity and degree of compaction obtained.

## 3.3 TEMPORARY EXCAVATIONS

All excavation slopes and shoring systems should meet the minimum requirements of the Occupational Safety and Health (OSHA) Standards. Maintaining safe and stable slopes on excavations is the responsibility of the contractor and will depend on the nature of the soil conditions encountered and his method of excavation. Excavations during construction should be carried out in such a manner that failure or ground movement will not occur. The contractor should perform any additional studies deemed necessary to supplement the information contained in this report for the purpose of planning and executing his excavation plan.

### 3.3.1 Cal/OSHA Soil Type

The subsurface material expected to be encountered during site development may be classified as "Soil Type B" per the California Occupational Safety and Health Administration (Cal/OSHA). However, the exposed excavation conditions should be verified by the project engineering geologist during site excavations.

### 3.3.2 Excavation Characteristics

The site is underlain by relatively shallow very dense sandstone bedrock which should be expected to exhibit difficult excavation resistance for smaller excavating equipment like rubber tire backhoes.

### 3.3.3 Safe Un-Surcharged Vertical Cuts

Temporary un-surcharged excavations of 4 feet high may be made at a vertical gradient for short periods of time. Temporary un-surcharged excavations greater than 4 feet may be trimmed back at 1H:1V gradients to a maximum height of 12 feet. Exposed excavation conditions should be verified by the project geotechnical engineer during construction. No excavations should take place without the direct supervision of the project geotechnical engineer. If potentially unstable soil conditions are encountered, modifications of slope ratios for temporary cuts may be required.

### 3.3.4 Excavation Setbacks

No excavations should be conducted, without special considerations, along property lines, public right-of-ways, or existing foundations, where the excavation depth will encroach within the “zone of influence”. The “zone of influence” of the existing footings, property lines, or public right-of-way may be assumed to be below a 45-degree line projected down from the bottom edge of the footing, property line, or right-of-way.

## 3.4 TEMPORARY SHORING

Where there is not sufficient space for sloped embankments, temporary shoring consisting of steel soldier piles placed in drilled holes and backfilled with concrete may be utilized.

### 3.4.1 Lateral Pressures

For design of cantilevered shoring, a triangular distribution of lateral earth pressure may be used. It may be assumed that the retained soils, with a level surface behind the cantilevered shoring, will exert a lateral pressure equal to that developed by a fluid with the density of 30 pounds per cubic foot.

For the design of braced shoring, we recommend a rectangular distribution of lateral earth pressures with the maximum pressure equal to  $28H$  in pounds per square foot, where  $H$  is the height of the shoring in feet. The distribution given is made assuming that the soils behind the shoring are dewatered.

### 3.4.2 Surcharge Loading

Any surcharge (live or dead load) located within a 1(H):1(V) plane drawn up from the bottom of the excavation should be added to the lateral earth pressures. As a minimum, a 2-foot uniform soil surcharge, i.e., 240 psf, is recommended to be included to account for nominal construction surcharge. The contribution of this vertical uniform surcharge to lateral loading on the shoring may be calculated by multiplying the surcharge by the coefficient of lateral earth pressure ( $K_a = 0.33$  for cantilever shoring and  $K_o = 0.50$  for Braced shoring).

### 3.4.3 Soldier Piles

All soldier piles should extend to a sufficient depth below the excavation bottom to provide the required lateral resistance. We recommend the required embedment depths be calculated based on the principles of force and moment equilibrium.

For the design of soldier piles spaced at least two diameters on centers, the allowable lateral bearing value (passive value) of the soils below the level of excavation may be assumed to be 600 pounds per square foot per foot of depth at the excavated surface, up to a maximum of 6000 pounds per square foot.

To develop full lateral resistance, provisions should be taken to assure firm contact between the soldier piles and undisturbed bedrock material. The concrete placed in the soldier pile excavations may be a lean-mix concrete. However, the concrete used in that portion of the soldier pile that is below the planned excavated level should provide sufficient strength to adequately transfer the imposed loads to the surrounding materials.

In addition, provided that the portion of the soldier piles below the excavated level is backfilled with structural concrete, the soldier piles below the excavated level may be used to resist downward loads. For resisting the downward loads, the frictional resistance between the concrete soldier piles and the soils below the excavated level may be taken equal to 700 pounds per square foot.



#### 3.4.4 Lagging

Continuous lagging will be required between the soldier piles. The soldier piles should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be lower due to arching in the soils. We recommend that the lagging be designed for the recommended active earth pressure but limited to a maximum value of 400 pounds per square foot. The pressure distribution for the lagging may be assumed to be semi-circular, where the pressure at the soldier pile is zero, and the pressure at the center is 400 pounds per square foot.

#### 3.4.5 Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. It is recommended that the deflection be minimized to prevent damage to existing structures and adjacent improvements. The allowable deflection is dependent on many factors, such as the presence of structures and utilities, and will be assessed and designed by the project shoring engineer.

#### 3.4.6 Monitoring

Some means of monitoring the performance of the shoring system is recommended. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all the soldier piles. In addition, we recommend that the adjacent sidewalks, streets and nearby buildings be surveyed for horizontal and vertical locations. Also, a careful survey of existing cracks and offsets in the nearby buildings would be prudent and recorded; photographic records should be made to document the pre-construction conditions of the nearby existing buildings.

### 3.5 **DEEP FOUNDATION RECOMMENDATIONS**

Caisson foundations (Drilled Piers) should be at least 30 inches in diameter and embedded at least 10 feet into competent bedrock. The caisson diameter and embedment depth recommendations presented in this report are considered the minimum necessary for the soil conditions present at the foundation level and are not intended to supersede the design of the project structural engineer or criteria of the governing agencies for the project. Minimum foundation setback should be per the current building code.

#### 3.5.1 Axial Capacity

The axial load capacity of caissons should be designed as friction piles with no end bearing. An allowable skin friction value of 700 psf may be utilized for the portion of the pile embedded in competent bedrock. Single pile uplift capacity may be taken as 50% of the allowable downward capacity. The allowable downward capacity and allowable uplift capacity may be increased by one-third when considering transient wind or seismic loads.

#### 3.5.2 Lateral Resistance

An allowable passive earth pressure, for the sides of piles poured against competent bedrock, may be computed as an equivalent fluid having a density of 300 pounds per cubic foot with a maximum earth pressure of 3000 pounds per square foot. The allowable capacity may be doubled for isolated caissons/piles spaced more than two diameters apart. These allowable capacities may be increased by one-third when considering transient loads such as wind or seismic forces. The lateral deflection of the pier should be limited to 1/2-inch maximum under combined service level shear and moment loadings.

#### 3.5.3 Caisson Settlement

Following the above recommended design parameters, the total estimated settlement of piers should not exceed 1/2-inch and differential settlement should not exceed 1/8-inch per adjacent piers.

### 3.5.4 Additional Recommendations

If necessary, a continuous grade beam foundation may be placed across the top of the caisson foundations and the appropriate span between caissons should be determined by a qualified structural engineer.

The compressive and tensile strength of piers should be checked to verify the structural capacity of the pier. Reinforcement of piers should be verified and specified by the structural engineer for vertical and lateral loading. Minimum reinforcement of 1% is recommended.

### 3.5.5 Caisson Installation

The following recommendations are based upon tentative analysis of the geotechnical conditions at the project site and our understanding of the project. The project civil and structural engineers may require additional installation criteria based on other factors (type of pile, structural design, method of construction, etc.).

- The geotechnical engineer should provide full time observation during excavation and installation of all piers to observe subsurface conditions, and to document penetration into load supporting materials.
- The concrete mix design to be used in the pier construction should be established and approved by the structural engineer prior to the time of construction. Compression tests should be performed on samples of the concrete in accordance with applicable codes or requirements of the structural engineer. Inspection by qualified personnel should be provided during the concrete batching and during placement of pier steel and concrete.
- Piers located within three pier diameters of each other should be drilled and filled alternately so that concrete is permitted to set before drilling an adjacent pier. The time for initial set of the concrete will depend on the design mix and should be determined in the field at the time of construction. No fewer than 4 hours should be allowed for the concrete to set before drilling for an adjacent pier.
- No pier hole should be left open overnight. Since the exact pier installation process is not known at this time, it is important for GeoMat to be consulted relative to recommendations for placement criteria to aid in maintaining the integrity of the pier during placement.
- The bottoms of pier excavations should be relatively clean of loose soils and debris prior to placement of concrete. Any water encountered should be pumped from the boreholes prior to the placement of concrete, or placement of concrete should be by use of a tremie or pump line such that the water is displaced during the concrete placement. The volume of concrete placed should be measured to compare with the design volume.
- Installed piers should not be more than two percent (2%) from the plumb position.

## 3.6 SLABS-ON-GRADE

For the “No Grading” option, slabs will need to be designed as floating slabs without soil support. For the “Grading” option, slabs-on-grade should be supported on at least 12 inches of compacted fill bearing on competent bedrock or engineered fill. Slabs-on-grade should be at least 5-inches thick and reinforced with at least No. 4 bars at 12-inches on-center both ways, properly centered in mid thickness of slabs. The structural engineer should design the actual slab thickness and reinforcement based on structural load requirements.

### 3.6.1 Modulus of Subgrade Reaction

A coefficient of vertical subgrade reaction ( $K_v$ ) of 130 psi/in may be assumed for compacted fill. The modulus of subgrade reaction was estimated based on the NAVFAC 7.1 design charts. This value is for a small loaded area (1 sq. ft or less) such as for wheel loads or point loads and should be adjusted for larger loaded areas, as necessary.

### 3.6.2 Capillary Break & Vapor Membrane

If vinyl or other moisture-sensitive floor coverings are planned, we recommend that the floor slab in those areas be underlain by a vapor membrane and capillary break consisting of a minimum 10-mil vapor-retarding membrane over a 4-inch thick layer of clean sand. The 4-inch thick layer of sand should be placed between the subgrade soil and the membrane to decrease the possibility of damage to the membrane. This recommendation meets the requirements laid out in the 2019 California Green Building Standards Code.

### 3.6.3 Slab Curling Precautions

A low-slump concrete should be used to minimize possible curling of the slab. Additionally, a layer of sand may be placed over the vapor retarding membrane to reduce slab curling. If this sand bedding is used, care should be taken during the placement of the concrete to prevent displacement of the sand. However, the need for sand and/or the thickness of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview.

### 3.6.4 Subgrade Exposure

Construction activities and exposure to the environment can cause deterioration of the prepared subgrade. Therefore, we recommend that our field representative observe the condition of the final subgrade soils immediately prior to slab-on-grade construction, and, if necessary, perform further density and moisture content tests to determine the suitability of the final prepared subgrade.

Additionally, the slab subgrade should be moisture conditioned to 2 to 4 percent above the optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to placing the vapor retarding membrane.

## 3.7 **RETAINING WALLS**

### 3.7.1 Shallow Foundations

The proposed retaining walls may be supported on conventional shallow foundation systems deriving support in compacted fill or native bedrock. Shallow and deep foundations should meet the minimum foundation-slope setback requirements of the current building code. All foundation excavations must be observed and approved by the Geotechnical Engineer's representative, prior to placing steel reinforcement or concrete.

Spread, continuous, or pad-type foundations carried at least 24-inches below the lowest adjacent grade may be designed to impose a net dead-plus-live load pressure of 2000 psf. A one-third increase may be used for wind or seismic loads.

Resistance to lateral footing will be provided by passive earth pressure and base friction. For footings bearing against firm native material, passive earth pressure may be considered to be developed at a rate of 220 psf per foot of depth to a maximum of 2000 psf, for compacted soil. Base friction may be computed at 0.40 times the normal load. If passive earth pressure and friction are combined to provide required resistance to lateral forces, the value of the passive pressure should be reduced to two-thirds the value.

The onsite soils below the foundation depth have relatively high strengths and will not be subject to significant stress increases from foundations of the new structure. Therefore, estimated total long-term static and seismic settlement between similarly loaded adjacent foundation systems should not exceed 1-inch. The structures should be designed to tolerate a differential settlement on the order of 1/2-inch over a 30-foot span.

Footing reinforcement should be determined by the structural engineer; however, minimum reinforcement should be at least two No. 4 reinforcing bars, top and bottom. Reinforcement and size recommendations presented in this report are considered the minimum necessary for the soil conditions present at the foundation level and are not intended to supersede the design of the project structural engineer or criteria of the governing agencies for the project.

### 3.7.2 Lateral Earth Pressures

The following lateral earth pressures and soil parameters may be used for the design of retaining walls with free draining compacted backfills. If passive earth pressure and friction are combined to provide required resistance to lateral forces, the value of the passive pressure should be reduced to two-thirds the following recommendations.

Lateral Earth Pressure Condition	Soil Backfill Condition	Equivalent Fluid Pressure (pcf)
Active Case (Drained)*	Level	43
	2H:1V	78
At-Rest Case (Drained)	Level	64
	2H:1V	92
Unit Soil Weight	120 pcf	

### 3.7.3 Seismic Earth Pressure

Retaining walls exceeding 6 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A seismic load of 33 pcf should be used for design of walls that support more than 6 feet of backfill in accordance with Section 1803.5.12 of the 2019 CBC. This incremental pseudo-static pressure was calculated using the methods recommended in NAVFAC 7.2 and a horizontal coefficient equal to one-half of two-thirds  $PGA_M$ .

The seismic load is applied as an equivalent fluid pressure along the height of the wall and the calculated loads result in a maximum load exerted at the base of the wall and zero at the top of the wall. When using the load combination equations from the building code, the seismic earth pressure should be combined with the lateral active earth pressure for analyses of restrained basement walls under seismic loading conditions.

### 3.7.4 Surcharge Loading

Retaining walls should also be designed to resist any lateral surcharges due to the traffic, nearby buildings, construction loads, etc. Surcharge loads within a 1H:1V plane extending up from the base of the wall should be included in the design lateral pressures by multiplying the associated lateral earth pressure coefficient (see table above) with the applied surcharge load. This surcharge load should be applied as a uniform load along the height of the wall. Additional static lateral pressures due to other surcharge loadings in the vicinity of the wall can be estimated using the guidelines provided in Plate 4.

### 3.7.5 Waterproofing

The backfilled side of all retaining walls should be coated with an approved waterproofing compound or covered with a similar material to inhibit migration of moisture through the walls. It is recommended that the waterproofing system should be inspected and approved by the project civil engineer. The use of a water-stop should be considered for all concrete joints. We recommend contacting a waterproofing professional/consultant for specific recommendations for placement, sealing and protection of below grade walls.

### 3.7.6 Drainage and Backfill

We recommend drainage for retaining walls to be provided in accordance with Plate 5 of this report. The backdrain pipe should be connected to a system of closed pipe(s) (non-perforated) that lead to the storm runoff discharge facilities. Wall backdrain must be observed by the geotechnical engineer prior to wall backfill.

The above earth pressures assume that sufficient drainage will be provided behind the walls to prevent the build-up of hydrostatic pressures from surface and subsurface water infiltration. Back-cut distance for conventional retaining walls should be at least 18 inches to facilitate compaction. All retaining wall backfill must be compacted to at least 90 percent relative compaction (ASTM D-1557), utilizing equipment that will not damage the wall. Maximum precautions should be taken when placing drainage materials and during backfilling. Onsite soils may be used as backfill.

### 3.8 SLOPE PROTECTION AND MAINTENANCE

Proper slope protection and maintenance should help minimize erosion and improve the stability of the existing slopes. As a minimum the slope maintenance guidelines presented in Appendix G of this report should be followed. Additional precautions are:

- Any additional slope planting should be provided by a qualified landscape architect. GeoMat Testing Laboratories, Inc. strongly recommends that erosion and borrowing rodent control measures should be maintained.
- It is critical to provide periodic maintenance and repair of all slopes and drainage systems. Drainage system inlets, outlets, and spillways should be periodically inspected and cleaned of soil and debris.
- It is recommended that all project landscaping be provided with automatic sprinkler shutoffs in order to help prevent over-saturation of slope faces and help mitigate surficial slope instability problems. Leaks in the irrigation system should be fixed without delay.
- The slopes should be periodically inspected for evidence of cracking, erosion, and burrowing animals. Any problems should be repaired immediately.

### 3.9 SITE DRAINAGE

Adequate lot surface drainage is a very important factor in reducing the likelihood of adverse performance of foundations, hardscape, and slopes. Surface drainage should be sufficient to prevent ponding of water anywhere on a lot, and especially near structures and tops of slopes. Lot surface drainage should be carefully taken into consideration during fine grading, landscaping, and building construction. Therefore, care should be taken that future landscaping or construction activities do not create adverse drainage conditions.

Positive site drainage within common areas should be provided and maintained at all times. Drainage should not flow uncontrolled down any descending slope. Water should be directed away from foundations and not allowed to pond and/or seep into the ground. In general, the area within 5 feet around a structure should slope away from the structure. We recommend that unpaved lawn and landscape areas have a minimum gradient of 2 percent sloping away from structures, and whenever possible, should be above adjacent paved areas. Consideration should be given to avoiding construction of planters adjacent to structures.

Planters around the site should be provided with drainage. Planters adjacent to foundation, if constructed, should be provided with sealed bottom. Onsite drainage should be directed to approve drainage collection devices, per the civil engineer recommendations. Location of drainage devices should be in accordance with the design civil engineer's drainage and erosion control recommendations.

Pad drainage should be directed toward the street or other approved area(s). Although not a geotechnical requirement, roof gutters, downspouts, or other appropriate, means may be utilized to control roof drainage. Downspouts, or drainage devices, should outlet a minimum of 5 feet from structures or into a subsurface drainage system. Areas of seepage may develop due to irrigation or heavy rainfall, and should be anticipated. Minimizing irrigation will lessen this potential. If areas of nuisance seepage develop, recommendations such as subdrains, French drains, etc., for minimizing this effect could be provided upon request.

## 4.0 ADDITIONAL SERVICES

### **Plan Review**

The recommendations provided in this report are based on preliminary design information and subsurface conditions as interpreted from an exploratory borehole drilled at the site. We should be retained to review the final project plans prior to construction. Our preliminary conclusions and recommendations must also be reviewed and verified during footing excavations, and revised accordingly if exposed geotechnical conditions vary from our preliminary findings and interpretations.

### **Additional Observation and/or Testing**

GeoMat Testing Laboratories, Inc. should observe and/or test at the following stages of construction.

- During construction excavations and shoring installation.
- During footing excavation and prior to placement of footing materials.
- Following slab subgrade saturation for moisture testing.
- During all trench and wall backfills.
- When any unusual conditions are encountered.

## 5.0 GEOTECHNICAL RISK

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools which geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free and, more importantly, are not a guarantee that the interaction between the soils and the proposed structure will perform as planned.

The engineering recommendations presented in the preceding sections constitute GeoMat Testing Laboratories professional estimate of those measures that are necessary for the proposed development to perform according to the proposed design based on the information generated and referenced during this evaluation, and GeoMat Testing Laboratories experience in working with these conditions.

## 6.0 LIMITATION OF INVESTIGATION

This report was prepared for the exclusive use on the new construction. The use by others, or for the purposes other than intended, is at the user's sole risk.

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Geotechnical Engineers practicing in this or similar locations within the limitations of scope, schedule, and budget. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

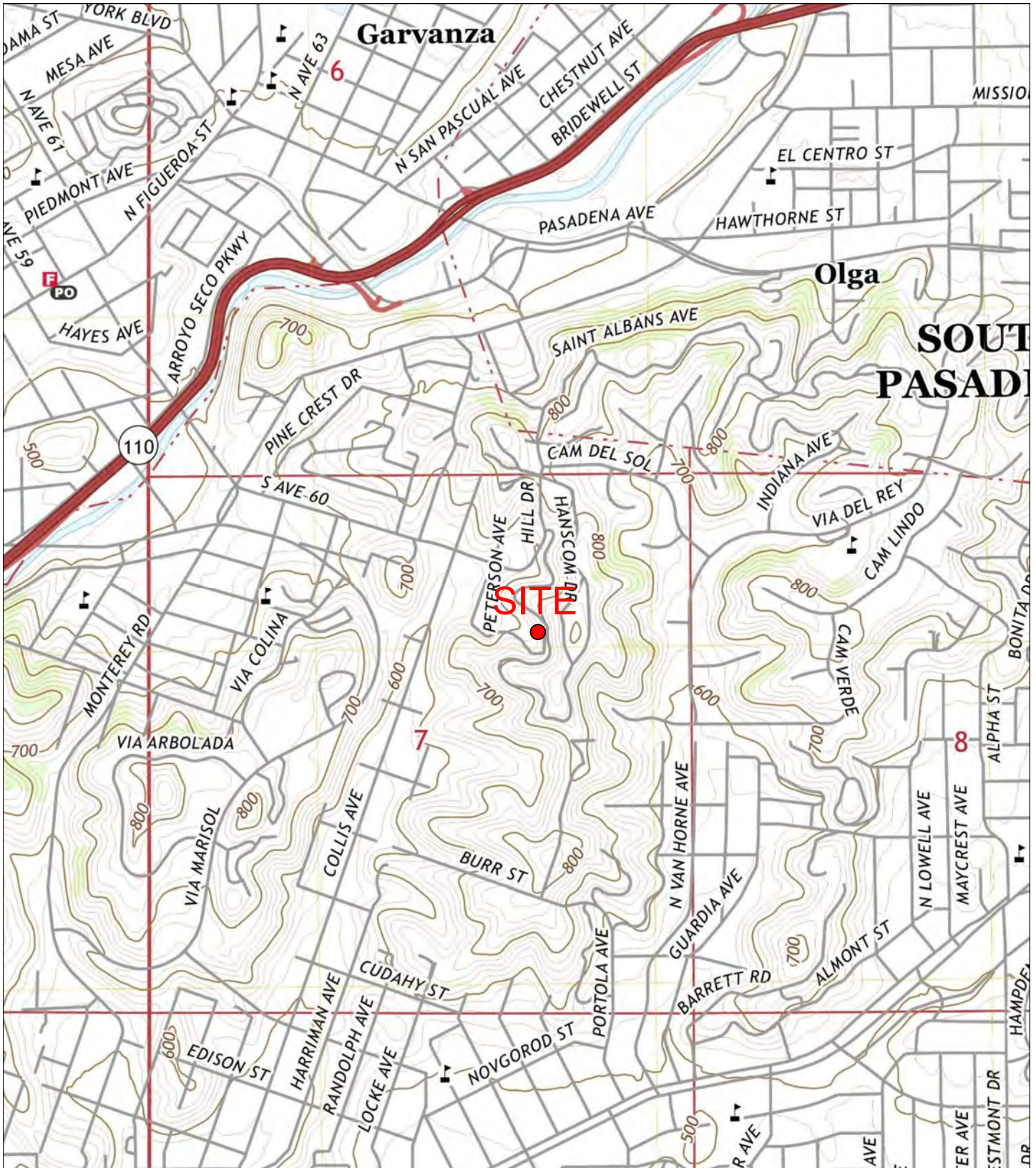
The field and laboratory test data are believed representative of the site; however, soil conditions can vary significantly. As in most projects, conditions revealed during construction may be at variance with preliminary findings. If this condition occurs, the possible variations must be evaluated by the Project Geotechnical Engineer and adjusted as required or alternate design recommended.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the engineer for the development and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractor carry out such recommendations in the field.

This firm does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for other than our own personnel on the site; therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions presented herein to be unsafe.

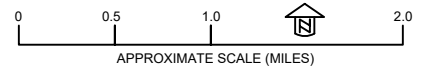
The findings, conclusions, and recommendations presented herein are based on our understanding of the proposed development and on subsurface conditions observed during our site work, and are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge.





USGS, THE NATIONAL MAP, US TOPO, LOS ANGELES, 2018

ALL LOCATIONS ARE APPROXIMATE



APPROXIMATE SCALE (MILES)



GeoMat Testing Laboratories, Inc.  
9980 Indiana Avenue, Suite 14,  
Riverside, California

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CHK'D BY:	MN
DATUM:	--
PROJECTION:	--
SCALE:	1" = 1/4 MILE
REV. NO.:	--

PROJECT: PRELIMINARY SOIL INVESTIGATION REPORT  
APN 5308-031-042  
SOUTH PASADENA, CALIFORNIA

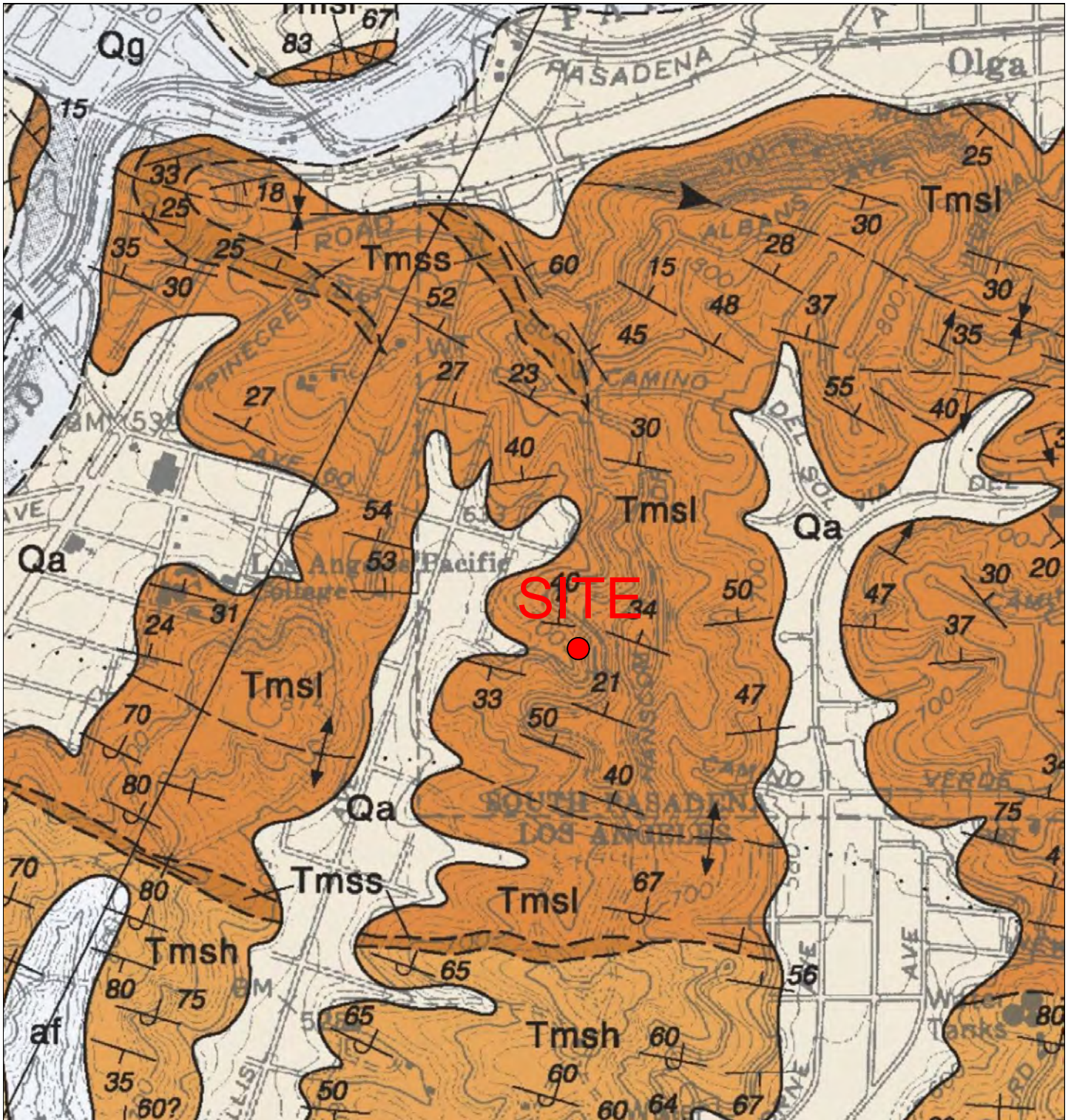
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### SITE LOCATION MAP

DATE: OCTOBER 2021

PROJECT NO.: 21242-01

FIGURE NO.: **Figure 1**




**LEGEND:**

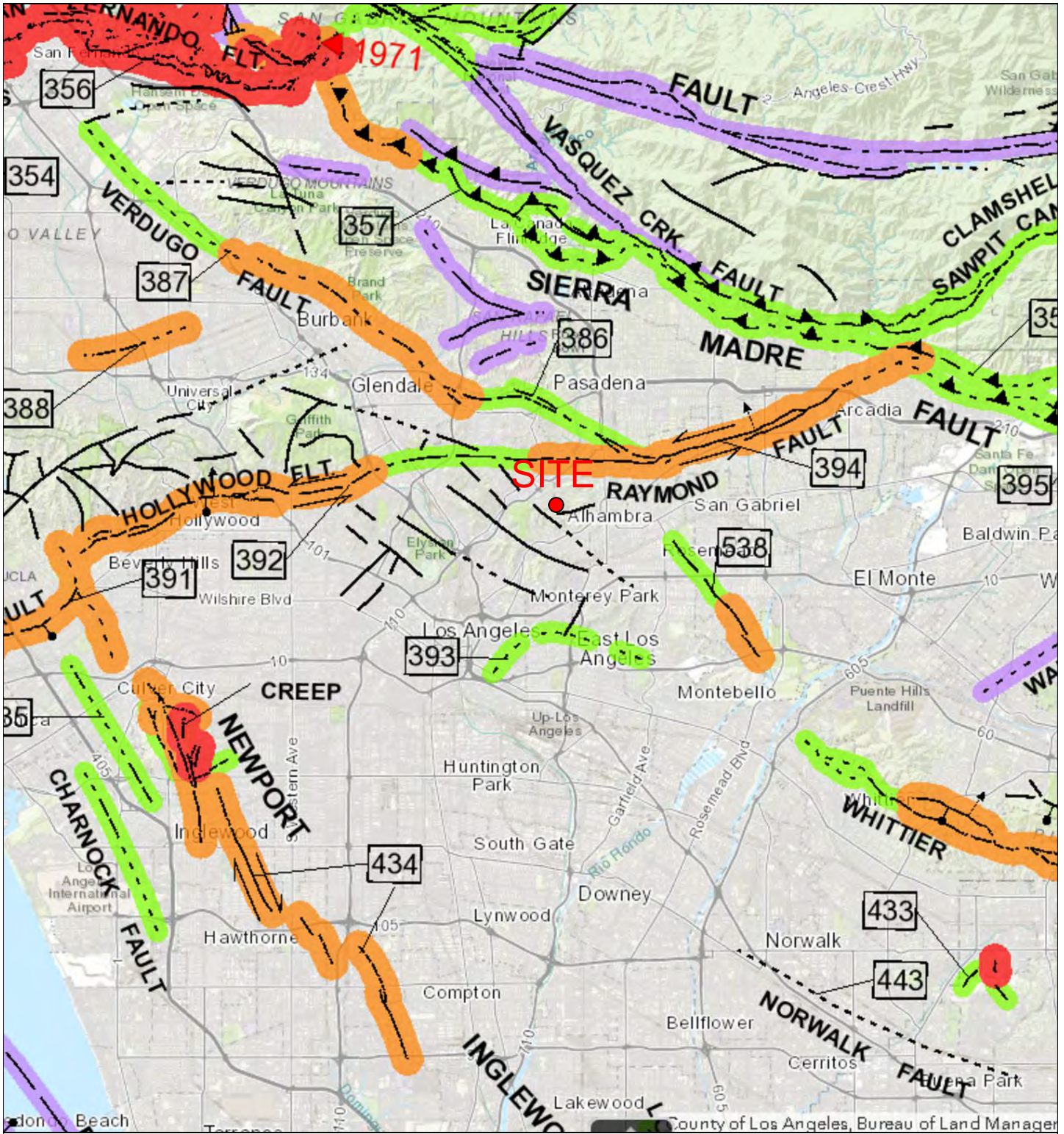
- Qa: younger alluvial floodplain deposits
- Qg: Alluvial clay and sand of valley areas
- af: Artificial fill
- Tmsl/Tmsh/Tmss: Monterey Formation

**REFERENCE MAP:**

Dibblee, T.W. and Ehrenspeck, H.E., ed., 1989, Geologic map of the Los Angeles quadrangle, Los Angeles County, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-22, 1:24,000



 GeoMat Testing Laboratories, Inc. 9980 Indiana Avenue, Suite 14, Riverside, California	DWN BY: AM	PROJECT: PRELIMINARY SOIL INVESTIGATION REPORT APN 5308-031-042 SOUTH PASADENA, CALIFORNIA	DATE: OCTOBER 2021
	CHK'D BY: MN		PROJECT NO.: 21242-01
	DATUM: --	TITLE: REGIONAL GEOLOGIC MAP	FIGURE NO.: Figure 2
	PROJECTION: --	SCALE: --	REV. NO.: --



**FAULT EXPLANATION:**

- Historic Fault Displacement
- Holocene Fault Displacement
- Evidence of Late Quaternary Fault Displacement
- Undivided Quaternary Faults

REFERENCES: Jennings, C.W. and Bryant, W.A., 2010, "Fault Activity Map of California," California Geological Survey, GDM-006, May 2010



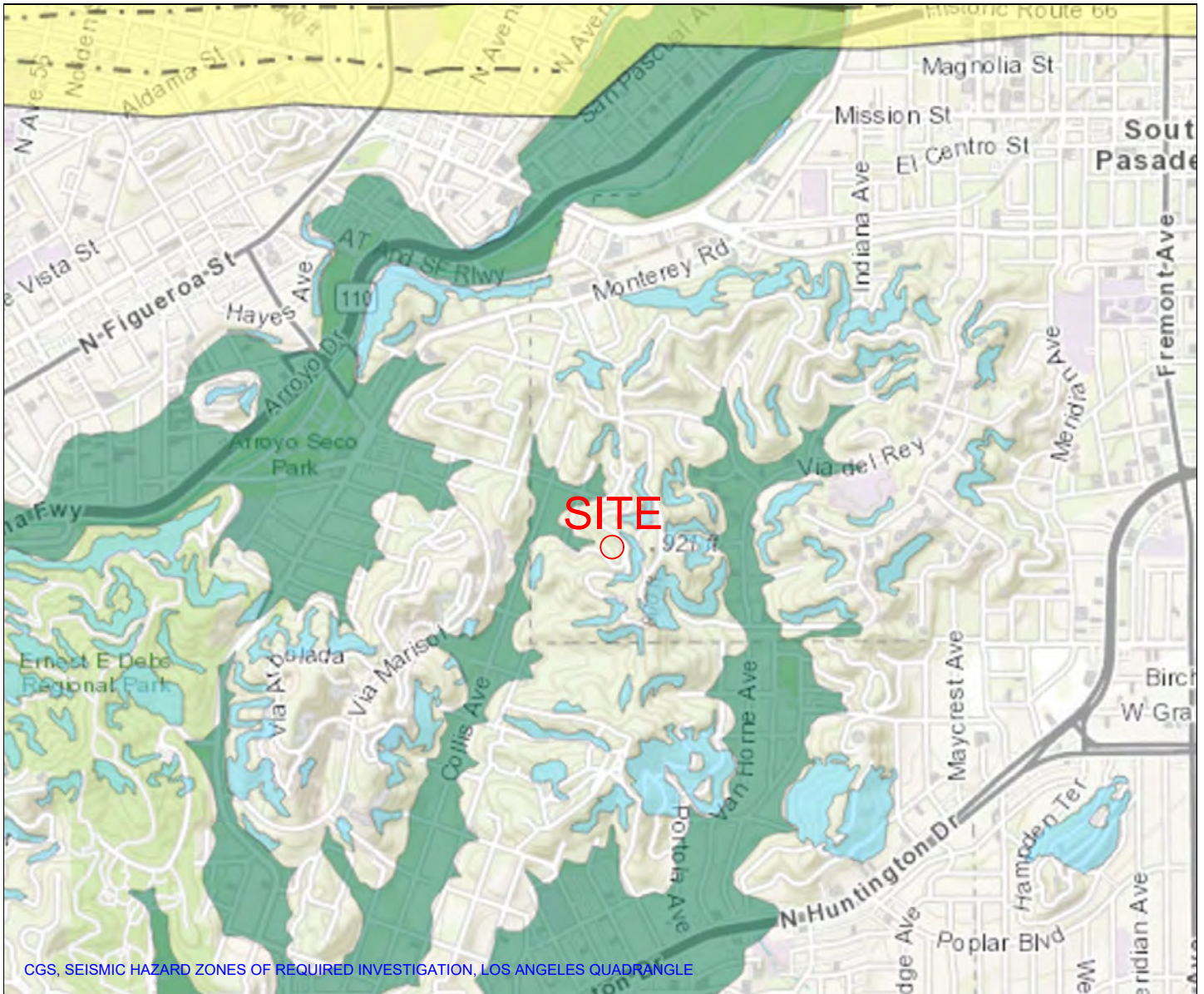
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
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SOUTH PASADENA, CALIFORNIA


**REGIONAL FAULT MAP**


DATE:	OCTOBER 2021
PROJECT NO.:	21242-01
FIGURE NO.:	Figure 3





MAP EXPLANATION


- 


**Active Fault Traces**  
Faults considered to have been active during Holocene time and to have potential for surface rupture: Solid Line in Black or Red where Accurately Located; Long Dash in Black or Solid Line in Purple where Approximately Located; Short Dash in Black or Solid Line in Orange where Inferred; Dotted Line in Black or Solid Line in Rose where Concealed; Query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake associated event or C for displacement caused by fault creep.
- 

**Overlap of Earthquake Fault Zone and Liquefaction Zone**  
Areas that are covered by both Earthquake Fault Zone and Liquefaction Zone
- 

**Overlap of Earthquake Fault Zone and Earthquake-Induced Landslide Zone**  
Areas that are covered by both Earthquake Fault Zone and Earthquake-Induced Landslide Zone
- 

**Liquefaction Zones**  
Areas where historical occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
- 

**Earthquake-Induced Landslide Zones**  
Areas where previous occurrence of landslide movement, or local topographic, geologic, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2603(c) would be required.
- 

**Overlapping Liquefaction and Earthquake-Induced Landslide Zones**  
Areas that lie within zones of required investigation for both liquefaction and earthquake-induced landslides.
- 

**Earthquake Fault Zones**  
Zone boundaries are delineated by straight-line segments; the boundaries define the zone encompassing active faults that constitute a potential hazard to structures from surface faulting or fault creep such that avoidance as described in Public Resources Code Section 2621.5(a) would be required.



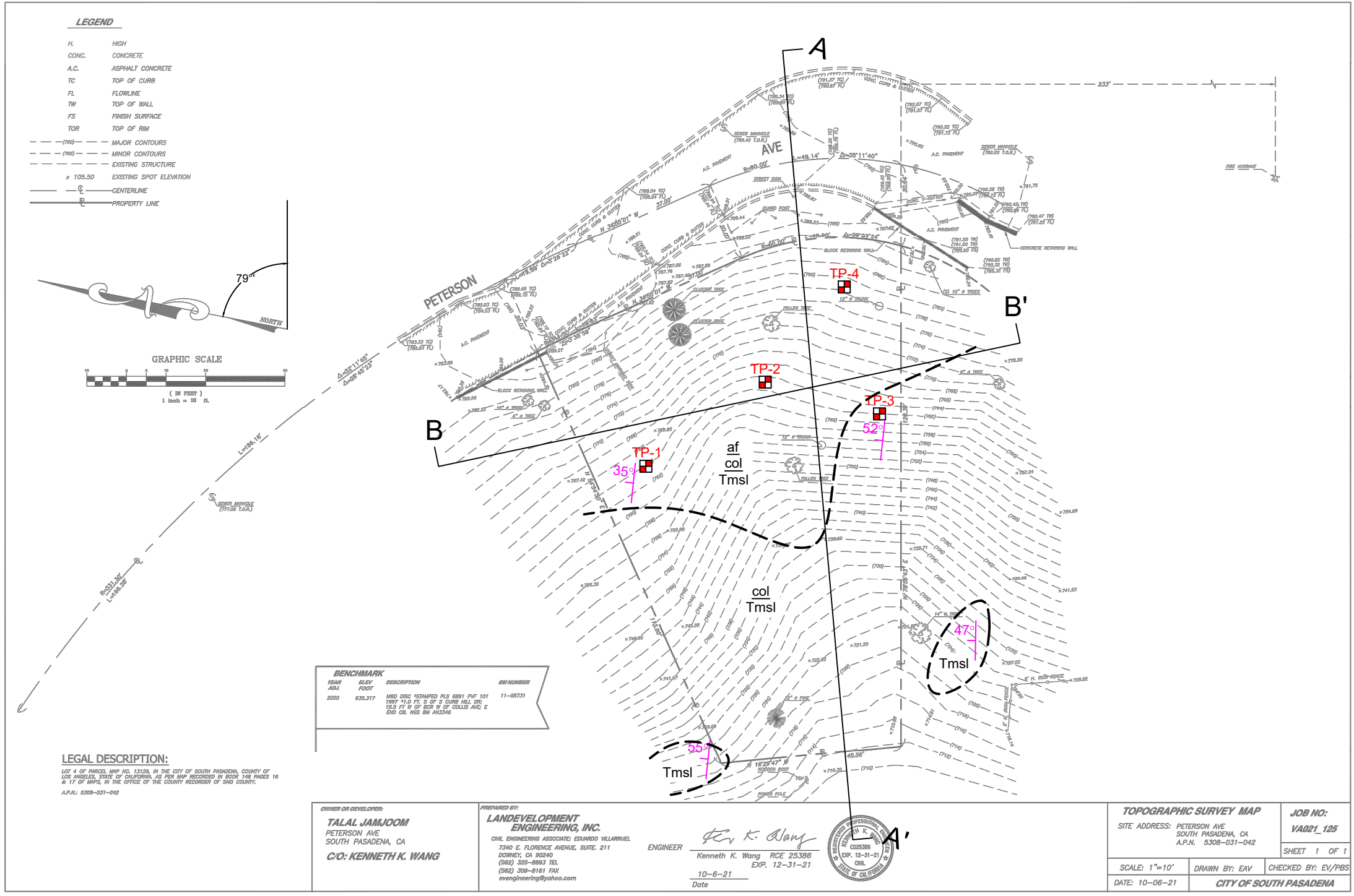
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SOUTH PASADENA, CALIFORNIA

**GEOLOGIC HAZARD MAP**

DATE:	OCTOBER 2021
PROJECT NO.:	21242-01
FIGURE NO.:	Figure 4



LEGEND:

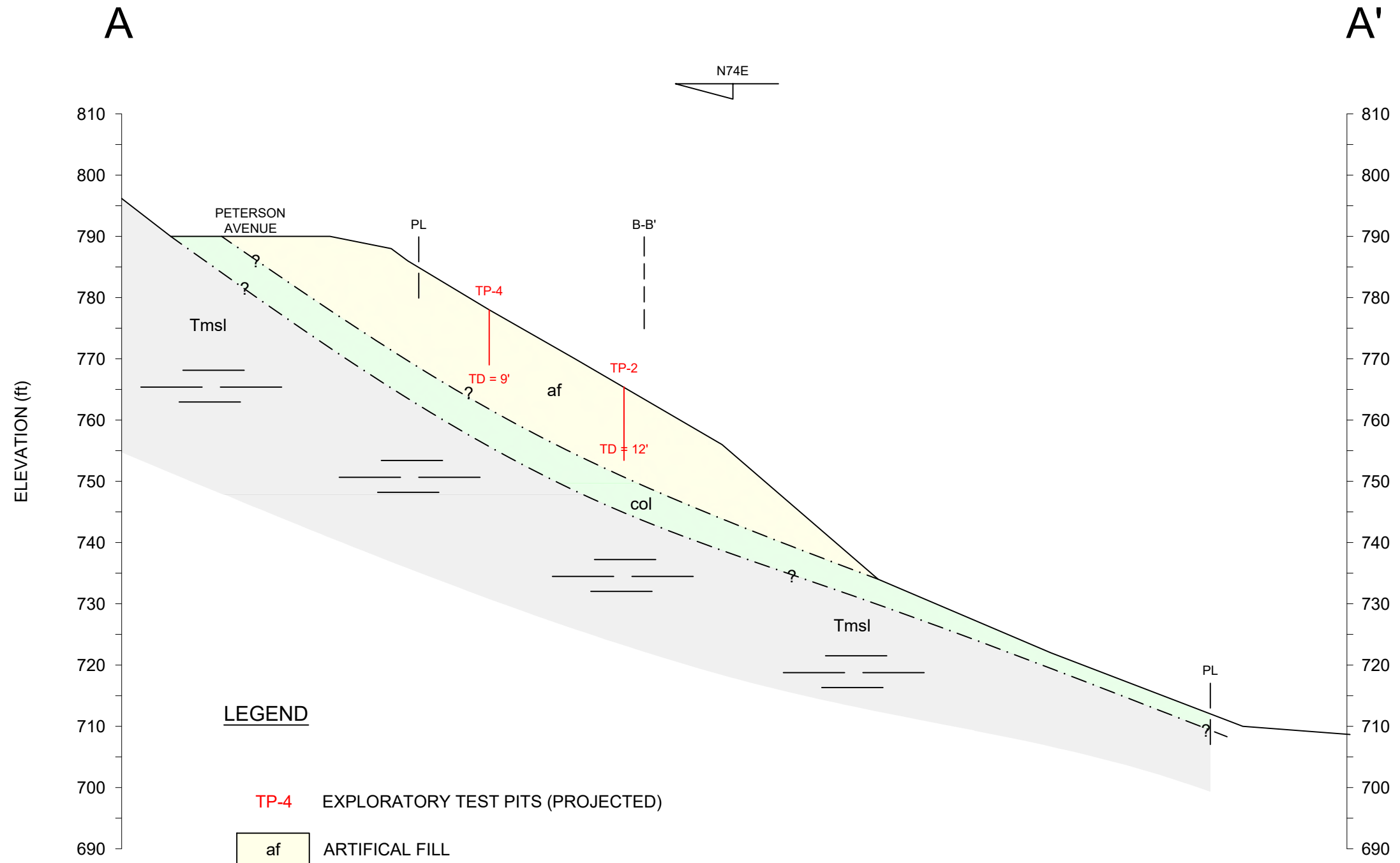
- TP-4 EXPLORATORY TEST PIT
- A-A' CROSS SECTION
- APPROXIMATE STRIKE AND DIP OF BEDDING (FROM TEST PITS)
- af/col SHALLOW FILL AND COLLUVIUM/ OVER SANDSTONE BEDROCK
- Tmsl Tmsl

ALL LOCATIONS ARE APPROXIMATE

**GEOLOGIC SITE MAP**  
 PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT  
 APN 5308-031-042  
 SOUTH PASADENA, CALIFORNIA

PREPARED BY:	DATE:	NOVEMBER 2021
	DRAWN BY:	AM
	CHECKED BY:	HMN
	PROJECT NO.:	21242-01
	SCALE:	1" = 30' (11"x17")

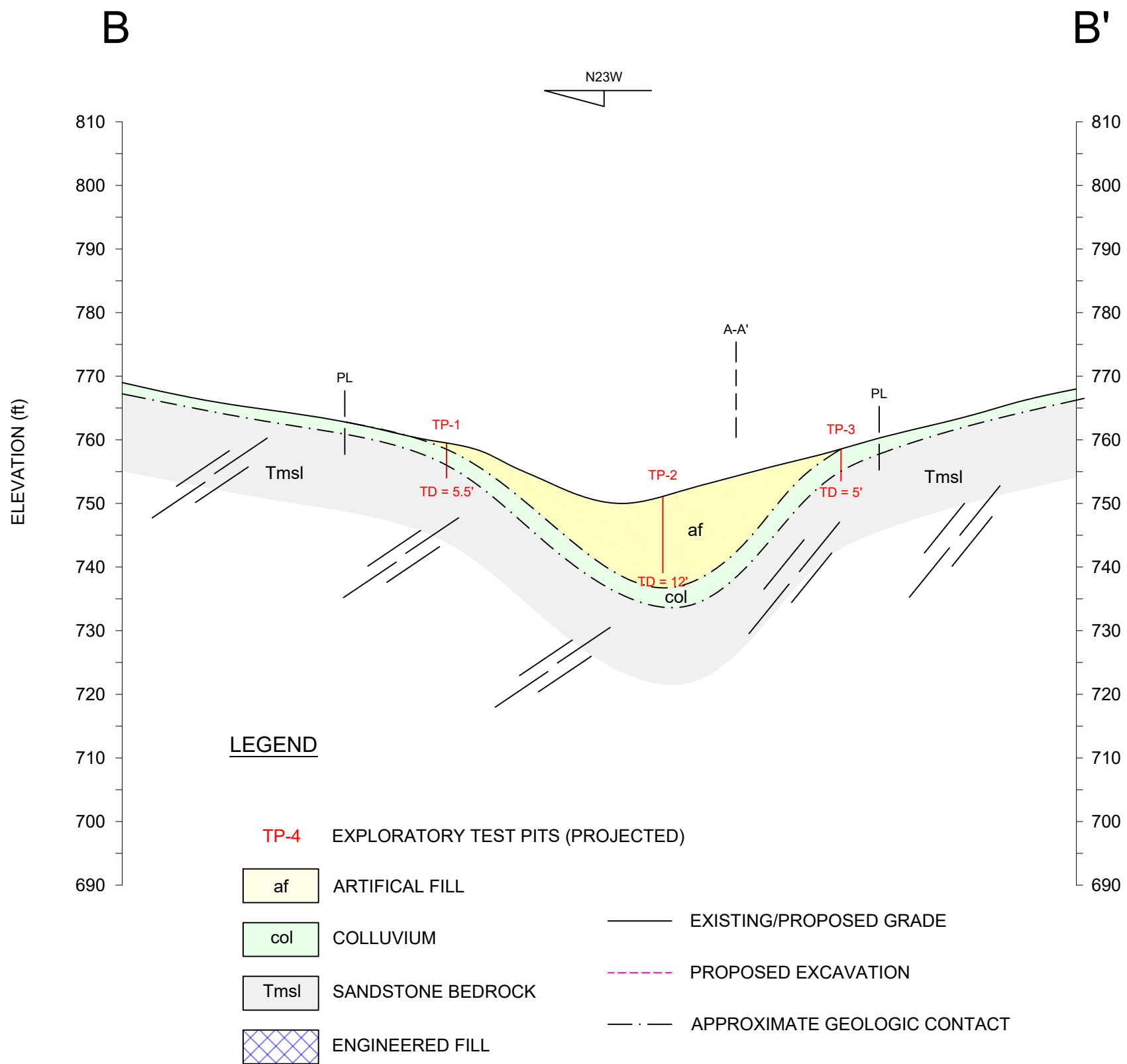
**PLATE 1**



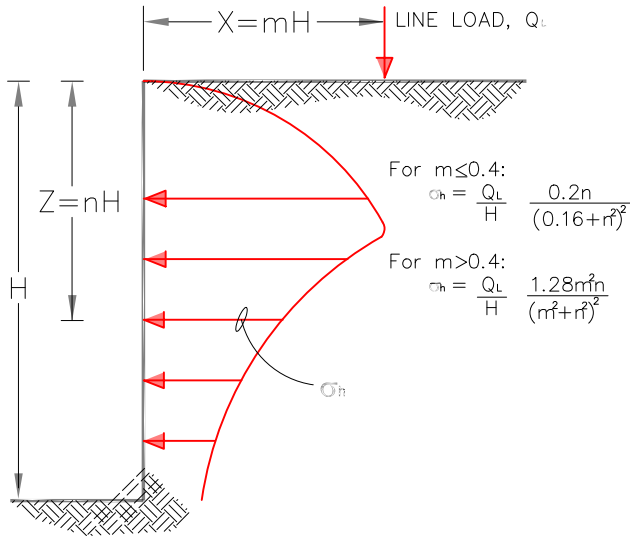
**LEGEND**

- TP-4 EXPLORATORY TEST PITS (PROJECTED)
- af ARTIFICIAL FILL
- col COLLUVIUM
- Tmsl SANDSTONE BEDROCK
- ENGINEERED FILL ENGINEERED FILL
- EXISTING/PROPOSED GRADE
- PROPOSED EXCAVATION
- APPROXIMATE GEOLOGIC CONTACT

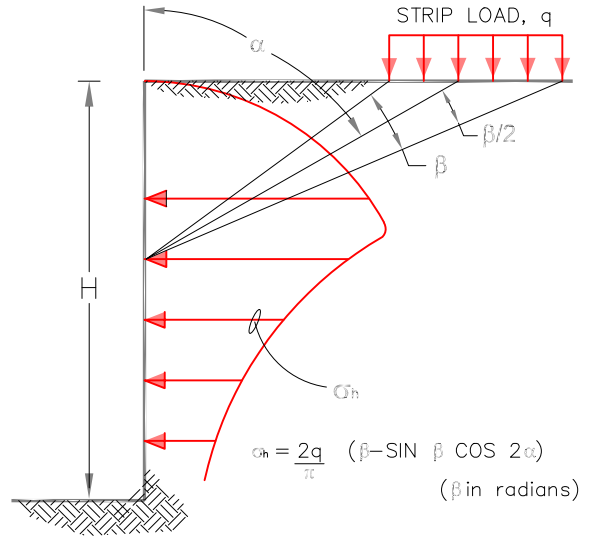
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PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT		
APN 5308-031-042		
SOUTH PASADENA, CALIFORNIA		
PREPARED BY:	DATE:	NOVEMBER 2021
GeoMat Testing Laboratories, Inc. <small>9980 Indiana Avenue, Suite 14, Riverside, California</small>	DRAWN BY:	AM
	CHECKED BY:	HMN
	PROJECT NO.:	21242-01
	SCALE:	1" = 20' (11"x17")



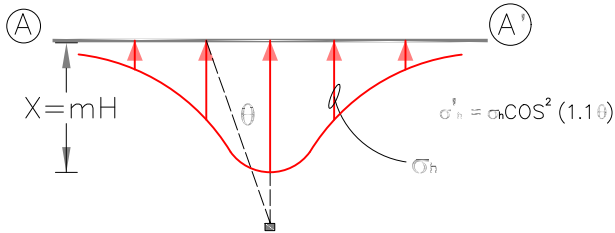
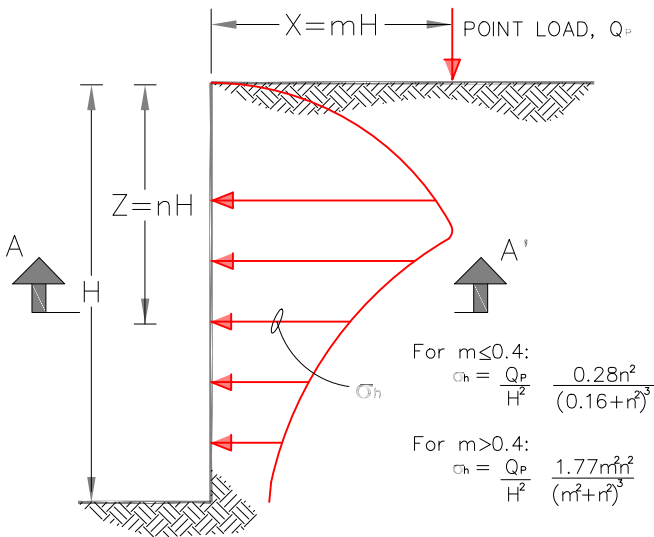
<b>GEOLOGIC CROSS SECTION B-B'</b>		
PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT		
APN 5308-031-042		
SOUTH PASADENA, CALIFORNIA		
PREPARED BY:	DATE:	NOVEMBER 2021
<b>geomat</b>	DRAWN BY:	AM
<small>GeoMat Testing Laboratories, Inc. 9980 Indiana Avenue, Suite 14, Riverside, California</small>	CHECKED BY:	HMN
	PROJECT NO.:	21242-01
	SCALE:	1" = 20' (11"x17")
		<b>PLATE</b> 3



LINE LOAD PARALLEL TO WALL



STRIP LOAD PARALLEL TO WALL



DISTRIBUTION OF HORIZONTAL PRESSURES

VERTICAL POINT LOAD

NOTES:

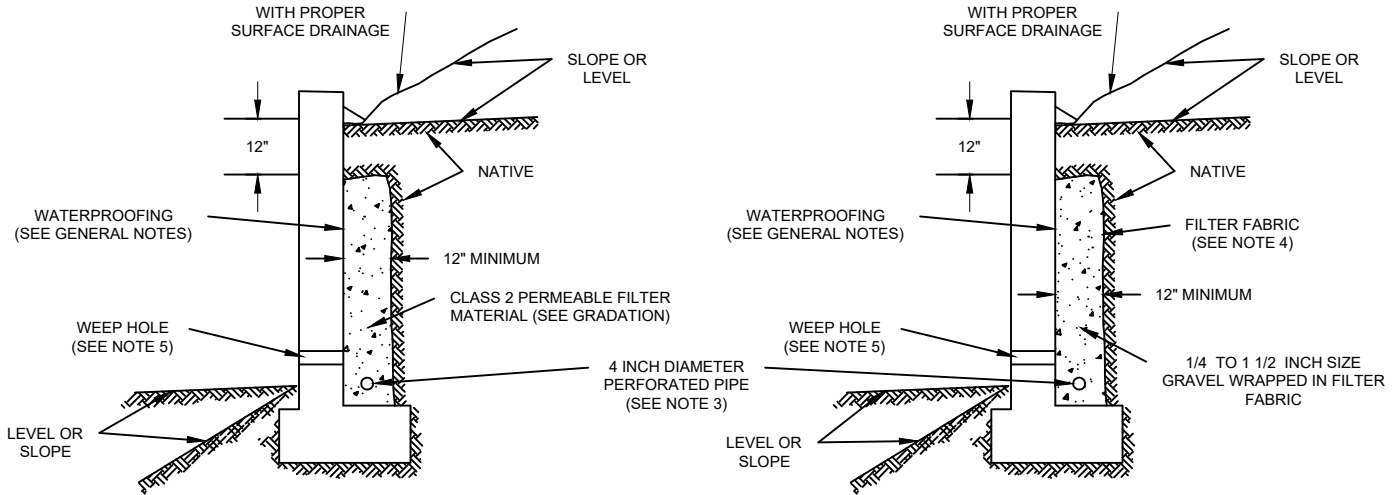
1. These guidelines apply to rigid walls with Poisson's ratio assumed to be 0.5 for backfill materials.
2. Lateral pressures from any combination of above loads may be determined by the principle of superposition.

**PLATE 4 - RETAINING WALL SURCHARGE DETAIL**



**OPTION 1: PIPE SURROUNDED WITH  
CLASS 2 PERMEABLE MATERIAL**

**OPTION 2: GRAVEL WRAPPED  
IN FILTER FABRIC**



Class 2 Filter Permeable Material Gradation  
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

**GENERAL NOTES:**

- \*Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
- \*Water proofing of the walls is not under the purview of the geotechnical engineer.
- \*All drains should have a gradient of 1 percent minimum.
- \*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding).
- \*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

**Notes:**

- 1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
- 2) 1 Cu. ft. per ft. of 1/4 - to 1 1/2 -inch size gravel wrapped in filter fabric
- 3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 -inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered).
- 4) Filter Fabric should be Mirafi 140NC or approved equivalent.
- 5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12-inches above finished grade. If exposure is not permitted, such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
- 6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
- 7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

**PLATE 5 - RETAINING WALL BACKFILL AND SUBDRAIN DETAIL**

# APPENDIX A

## SELECTED REFERENCES



**GeoMat Testing Laboratories, Inc.**  
Geotechnical Engineering  
Engineering Geology  
Material Testing

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5714 W. 96<sup>th</sup> Street  
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Office (310) 337-9400

[geomatlabs.com](http://geomatlabs.com)

## SELECTED REFERENCES

Dibblee, T.W. and Ehrenspeck, H.E., ed., 1989, Geologic map of the Los Angeles quadrangle, Los Angeles County, California, Dibblee Geological Foundation, Dibblee Foundation Map DF-22, 1:24,000

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CGS, Earthquake Zones of Required Investigation Map (EZRIM), Los Angeles Quadrangle

Jennings, Charles and Bryant, William, 2010, "Fault Activity Map of California," California Geological Survey, Map No. 6, California Data Map Series, scale 1:750,000.

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Structural Engineers Association of California, OSHPD Seismic Design Maps Interactive Website (<https://seismicmaps.org/>)

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Department of the Navy, Design Manual 7.02, Foundation and Earth Structures, September 1986.

Department of the Army, US Army Corps of Engineers, Engineering and Design, Bearing Capacity of Soils, EM 1110-1-1905.

Foundation Design, D. Cudoto, Second Edition, 2000.

Robert Day, Geotechnical Engineer's Portable Handbook.

Robert Day, Geotechnical Foundation Handbook.

# APPENDIX B

## TEST PIT LOGS



**GeoMat Testing Laboratories, Inc.**

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Material Testing

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Office (310) 337-9400

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### CONSISTENCY OF COHESIVE SOILS

Descriptor	Unconfined Compressive Strength (tsf)	Pocket Penetrometer (tsf)	Torvane (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 - 0.50	0.25 - 0.50	0.12 - 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 - 1.0	0.50 - 1.0	0.25 - 0.50	Can be penetrated several inches by thumb with moderate effort
Stiff	1.0 - 2.0	1.0 - 2.0	0.50 - 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2.0 - 4.0	2.0 - 4.0	1.0 - 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

### APPARENT DENSITY OF COHESIONLESS SOILS

Descriptor	SPT N60 - Value (blows / foot)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

### MOISTURE

Descriptor	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

### PERCENT OR PROPORTION OF SOILS

Descriptor	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

### SOIL PARTICLE SIZE

Descriptor	Size	
Boulder	> 12 inches	
Cobble	3 to 12 inches	
Gravel	Coarse	3/4 inch to 3 inches
	Fine	No. 4 Sieve to 3/4 inch
Sand	Coarse	No. 10 Sieve to No. 4 Sieve
	Medium	No. 40 Sieve to No. 10 Sieve
	Fine	No. 200 Sieve to No. 40 Sieve
Silt and Clay	Passing No. 200 Sieve	

### PLASTICITY OF FINE-GRAINED SOILS

Descriptor	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled, and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll, and not much time is required to reach the plastic limit; it cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

### SOIL CLASSIFICATION CHART

CEMENTATION	
Descriptor	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

MAJOR DIVISIONS		SYMBOLS		TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)	GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
	SAND AND SANDY SOILS  MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)	GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		CLEAN SANDS (LITTLE OR NO FINES)	GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
FINE GRAINED SOILS  MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS  LIQUID LIMIT LESS THAN 50	SM	SILTY SANDS, SAND - SILT MIXTURES	
		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		ML	INORGANIC SILTS AND VERY FINE SANDS; ROCK FLOUR; SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY; GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
	SILTS AND CLAYS  LIQUID LIMIT GREATER THAN 50	OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY	
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS		PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

## KEY TO LOG OF BORING

### APPENDIX B



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Riverside, California 92503  
(951) 688-5400

NOTE: Dual symbols are used to indicate gravels or sand with 5-12% fines and soils with fines classifying as CL-ML. Symbols separated by a slash indicate borderline soil classifications.

# TEST PIT LOG

No. TP-1

## VISUAL DESCRIPTION:

## ENGINEERING PROPERTIES:

Depth	Moisture (%)	Dry Unit Wt (pcf)	Other
-------	--------------	-------------------	-------

### 0-1': FILL

Mottled tan-brown, sandy silt, slightly clayey, many weathered siltstone fragments, loose to firm, slightly moist.

### 1'-3'6": COLLUVIUM

Dark brown, sandy clayey silt, many very small siltstone fragments, slightly porous, dense, slightly moist.

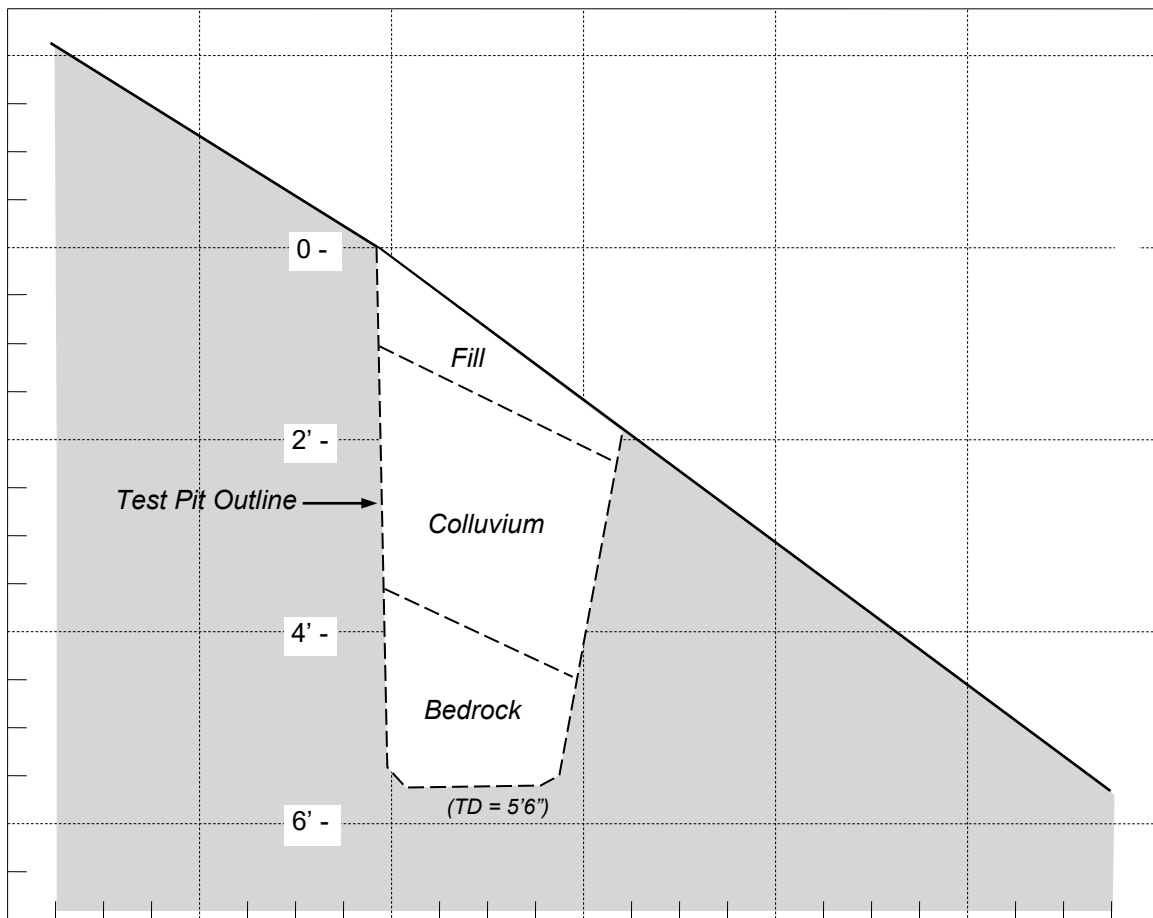
### 3'6"-5'6": BEDROCK

Tan-brown, fine sandstone with gray siltstone interbeds, well bedded, fractured, well indurated, slightly moist.

Bedding: N85E, 35NW

## SKETCH:

Southwest 



PROJECT: APN 5308-031-042 Peterson Ave, South Pasadena PROJECT NO: 21242-01

DATE: 10-11-21

LOGGED BY: EFH



PLATE B-1

# TEST PIT LOG

No. TP-2

## VISUAL DESCRIPTION:

## ENGINEERING PROPERTIES:

Depth	Moisture (%)	Dry Unit Wt (pcf)	Other
-------	--------------	-------------------	-------

0-12': FILL

0-3' Mottled grayish brown, sandy silt, slightly clayey, many small siltstone fragments, loose to firm, dry to slightly moist.

3'-5' Mottled tan-brown, sandy silt, many siltstone fragments, medium dense, slightly moist.

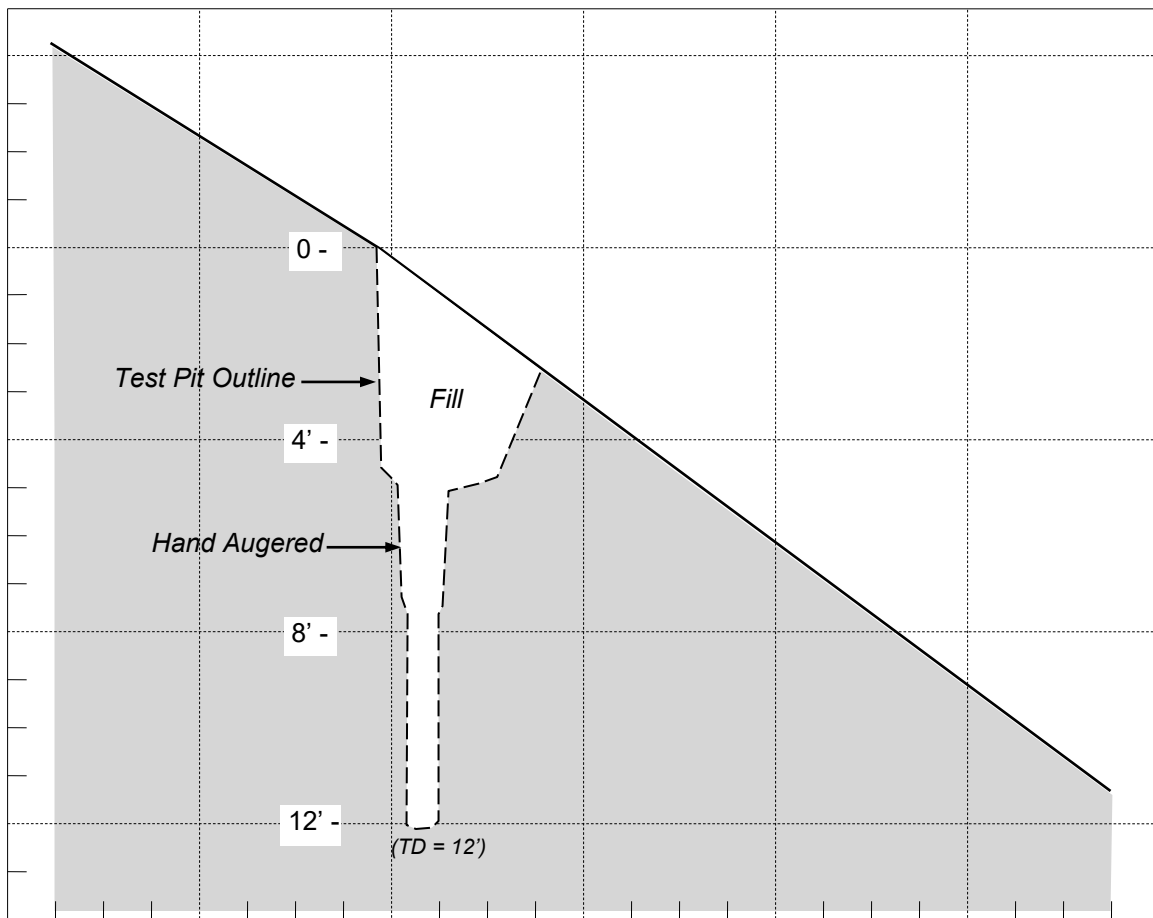
5'-7' Mottled tan-brown, predominant siltstone fragments, little soil matrix, **caving prone**, firm, slightly moist.

7'-12' Mottled tan-brown to dark brown, sandy silt, slightly clayey, many siltstone/sandstone fragments, medium dense to dense, slightly moist.

Refusal @ 12' depth with hand auger equipment.

## SKETCH:

Southwest 



PROJECT: APN 5308-031-042 Peterson Ave, South Pasadena PROJECT NO: 21242-01

DATE: 10-11-21

LOGGED BY: EFH



**PLATE B-2**

# TEST PIT LOG

No. TP-3

## VISUAL DESCRIPTION:

## ENGINEERING PROPERTIES:

Depth	Moisture (%)	Dry Unit Wt (pcf)	Other
-------	--------------	-------------------	-------

### 0-3'6": COLLUVIUM

Dark brown to tan-brown, sandy silt, slightly clayey, many small siltstone fragments (increasing with depth), firm to medium dense, slightly moist.

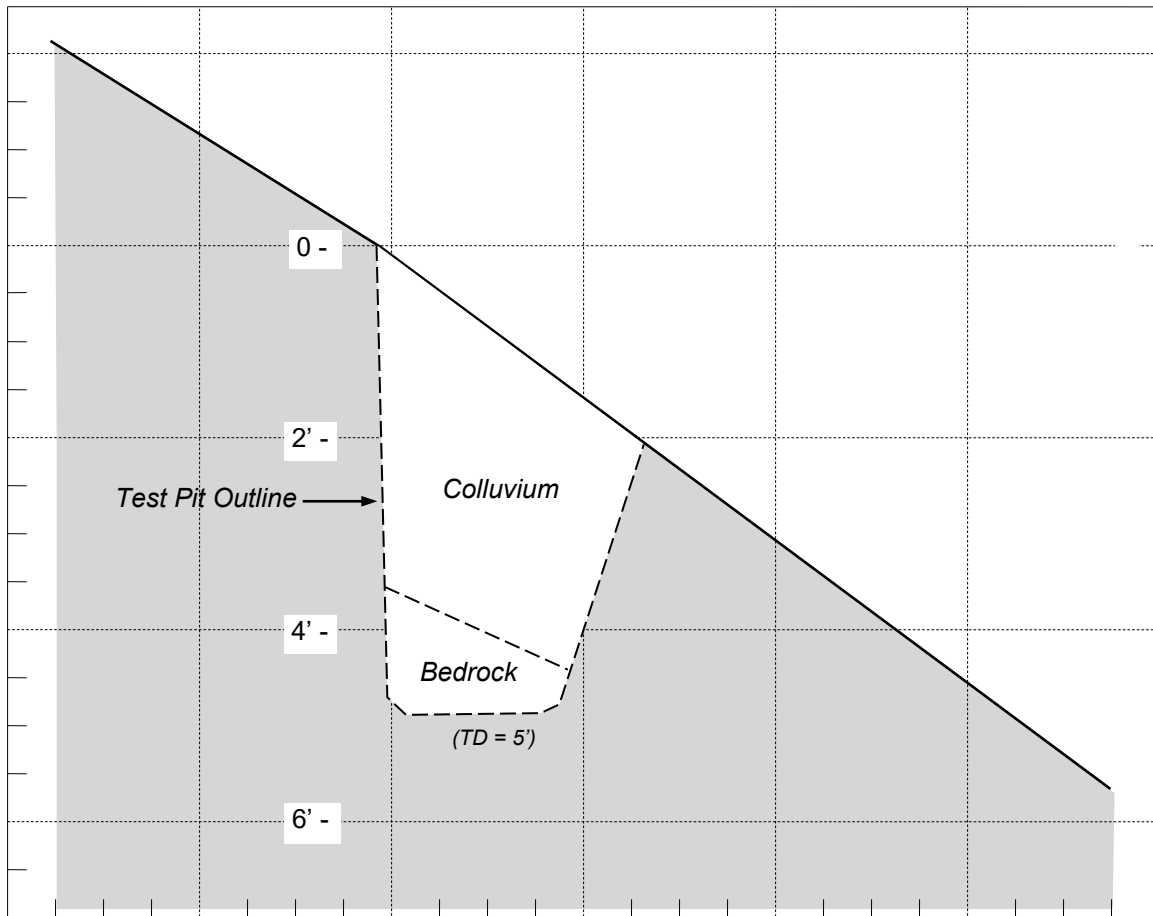
### 3'6"-5': BEDROCK

Interbedded tan-brown, fine sandstone and gray siltstone, well bedded, fractured, well indurated, slightly moist.

Bedding: N85E, 52NW

## SKETCH:

Northwest 



PROJECT: APN 5308-031-042 Peterson Ave, South Pasadena PROJECT NO: 21242-01

DATE: 10-11-21

LOGGED BY: EFH



**PLATE B-3**



# TEST PIT LOG

No. TP-4

## VISUAL DESCRIPTION:

## ENGINEERING PROPERTIES:

Depth	Moisture (%)	Dry Unit Wt (pcf)	Other
-------	--------------	-------------------	-------

0-9': FILL

0-3' Mottled grayish brown, sandy silt, slightly clayey, many small siltstone fragments, loose to firm, dry to slightly moist.

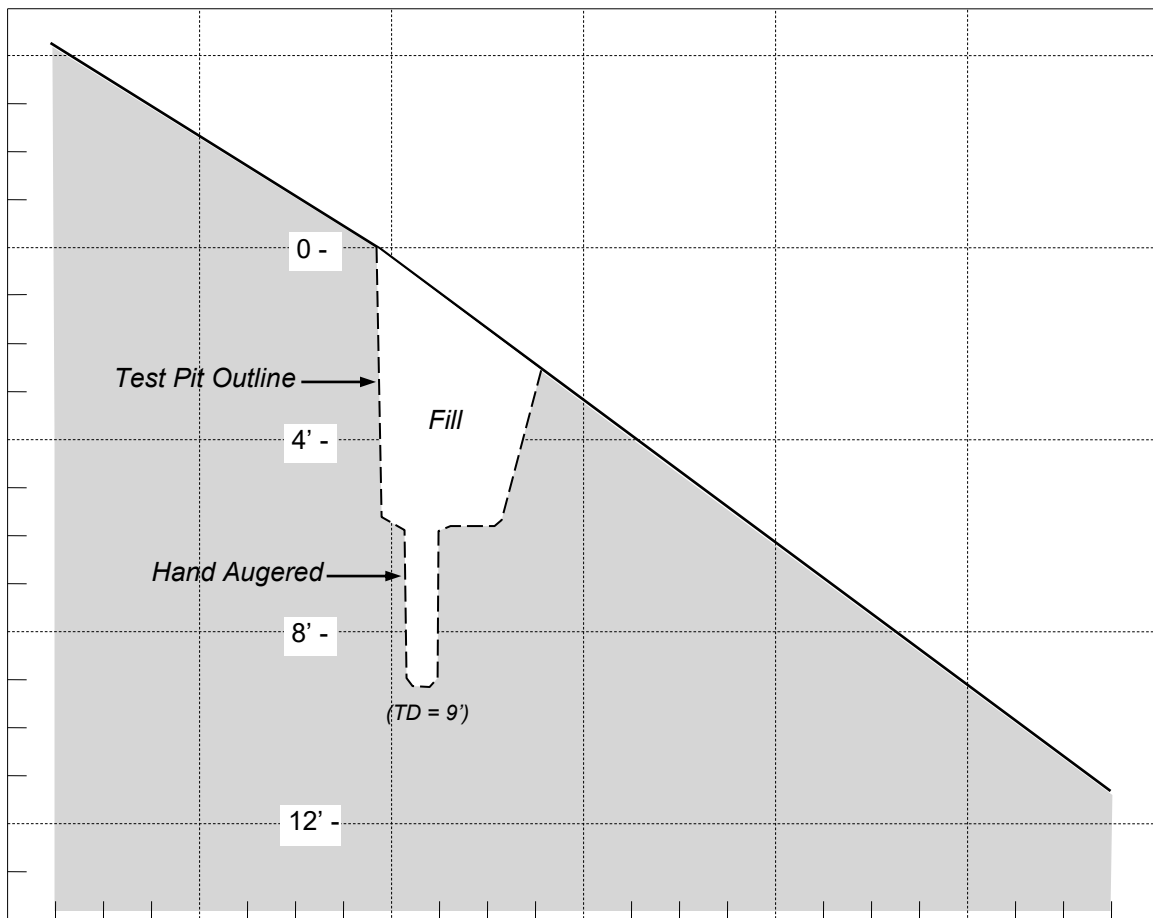
3'-6' Mottled tan-brown/dark brown, clayey sandy silt, many siltstone fragments, medium dense to dense, slightly moist.

6'-9' Mottled tan-brown, silty sand to sandy silt, many siltstone fragments, medium dense, slightly moist.

Refusal @ 9' depth with hand auger equipment.

## SKETCH:

West 



PROJECT: APN 5308-031-042 Peterson Ave, South Pasadena PROJECT NO: 21242-01

DATE: 10-11-21

LOGGED BY: EFH



**PLATE B-4**

# APPENDIX C

## LABORATORY TESTING



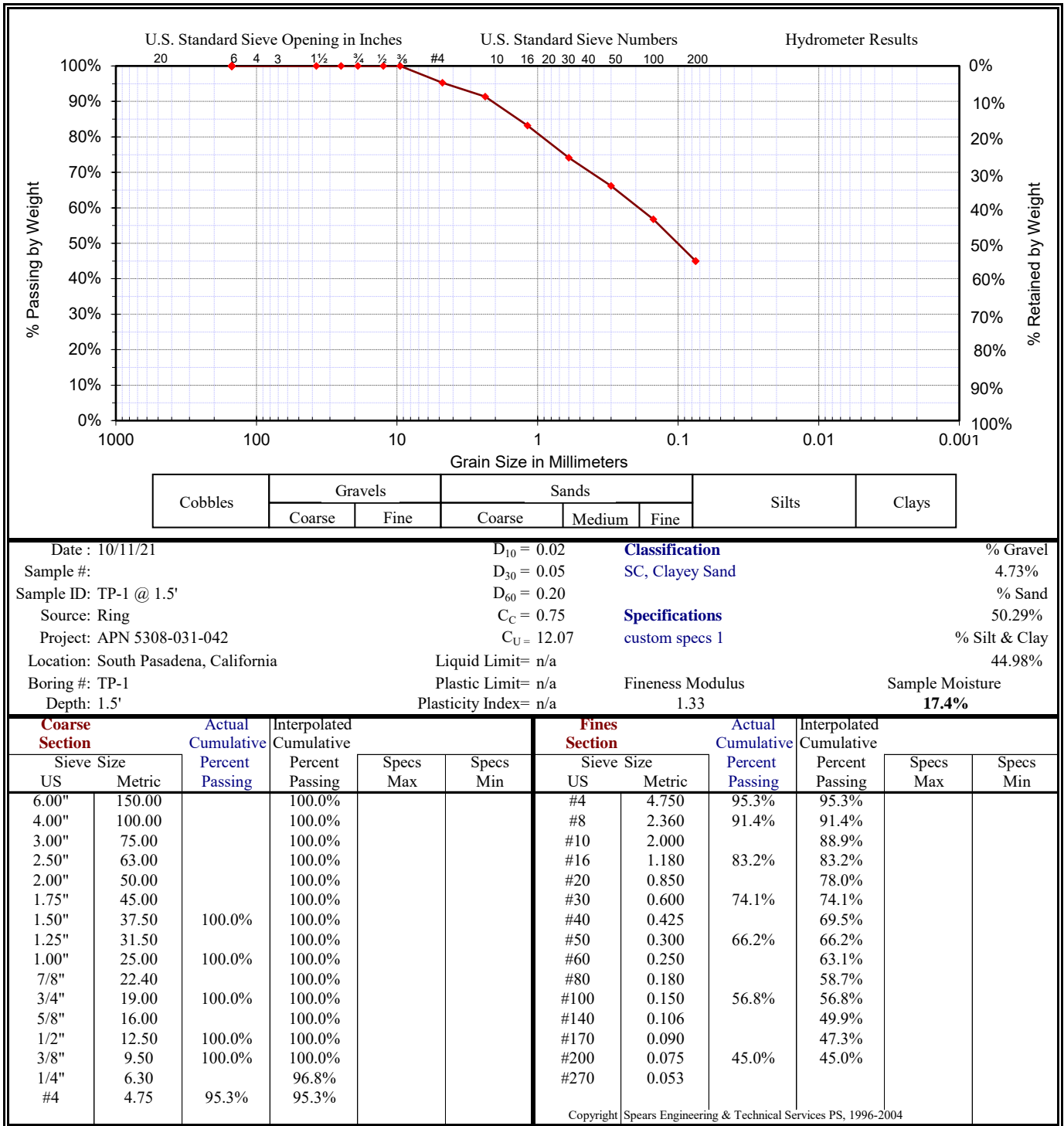
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Geotechnical Engineering  
Engineering Geology  
Material Testing

**Inland Empire**  
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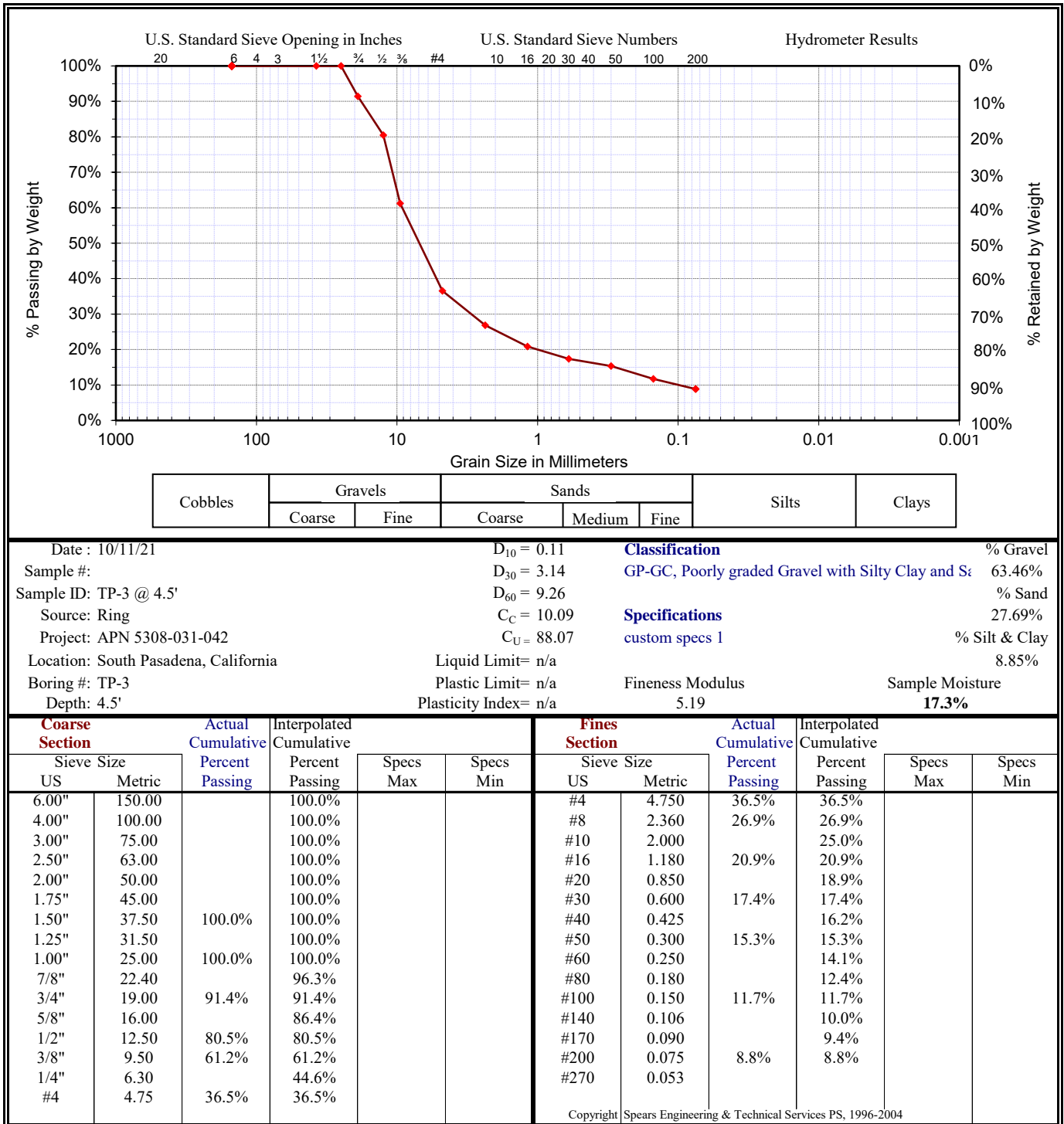
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Los Angeles, California 90045  
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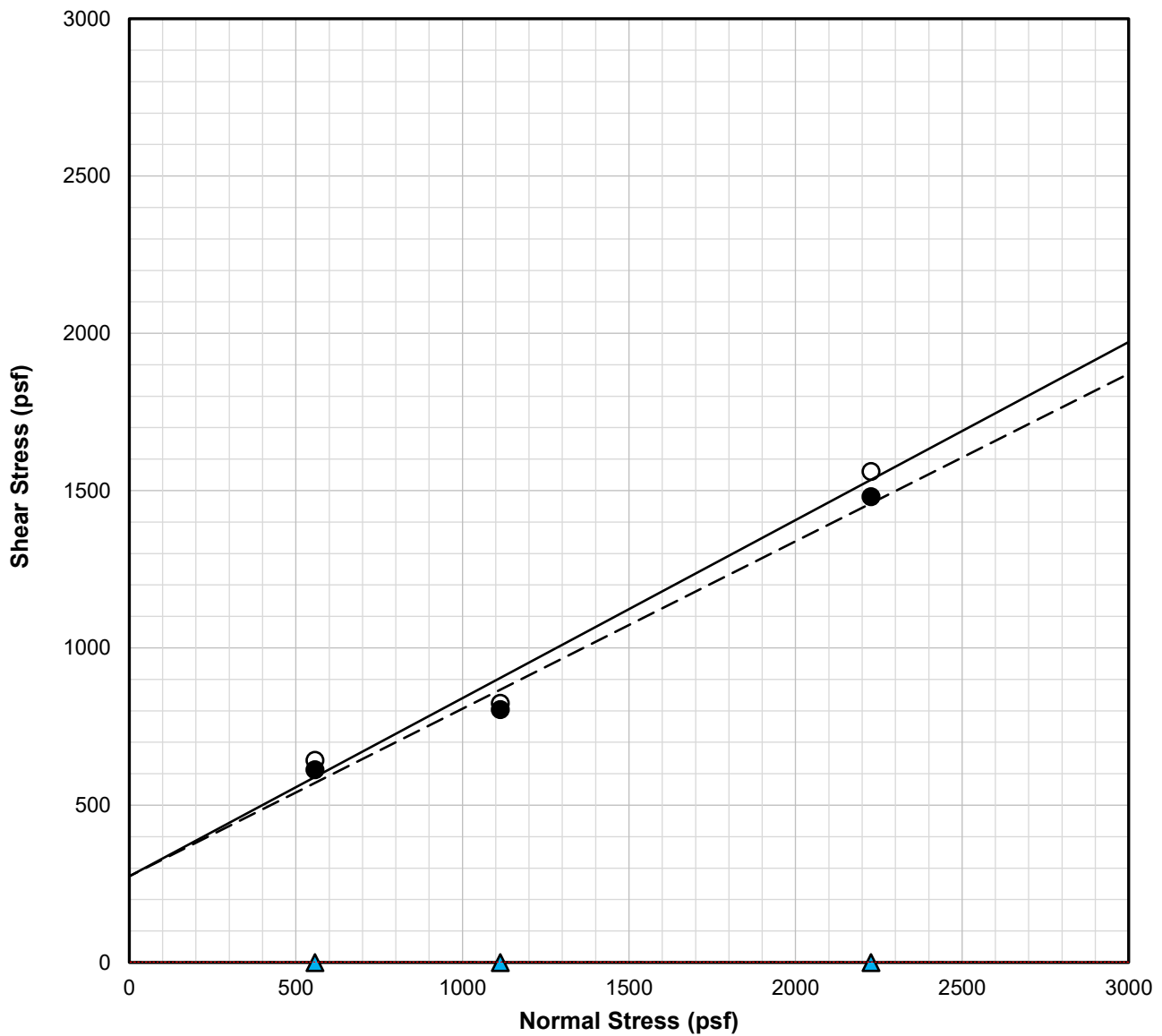
# LABORATORY TEST RESULTS



# LABORATORY TEST RESULTS



## DIRECT SHEAR TEST RESULTS



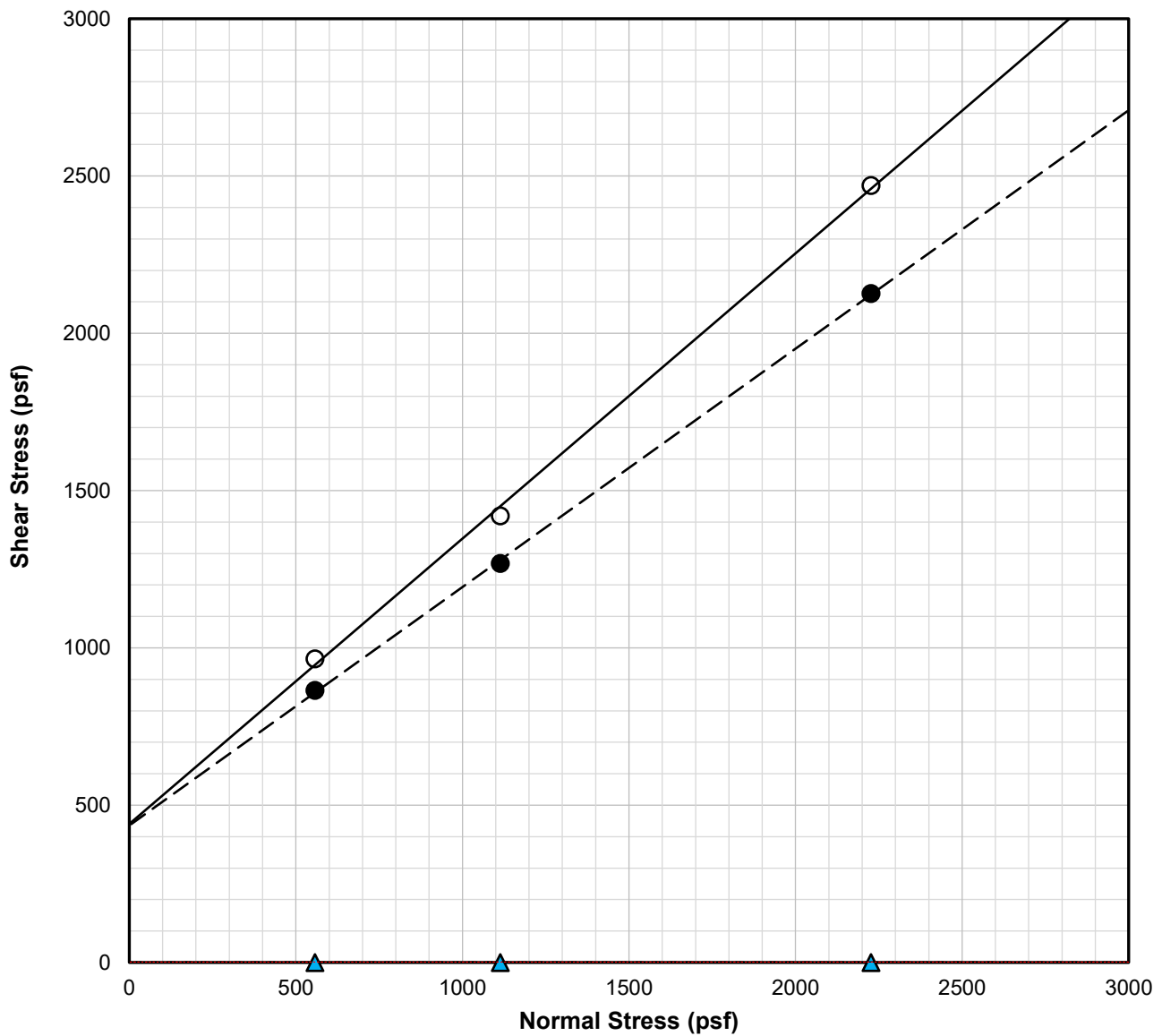
Sample	Symbol	Description	Soil Type [USCS]	Shear Strength	Friction Angle $\phi$ [degrees]	Cohesion c [psf]
TP-1 @ 1.5'	—○—	Natural Soil	SC	Peak	30	274
TP-1 @ 1.5'	--●--	Natural Soil	SC	Ultimate	28	274
TP-1 @ 1.5'	--▲--	Natural Soil	SC	*Residual	N/A	N/A

Sample Moisture [%]	Saturated Moisture [%]	Dry Unit Weight [pcf]
19.5	42.5	74.2

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 Riverside, California 92503

\*Residual shear strength results were determined from the lowest of the residual shears shown above.  
 (Individual residual shear results plotted with red dashed line above)

## DIRECT SHEAR TEST RESULTS



Sample	Symbol	Description	Soil Type [USCS]	Shear Strength	Friction Angle $\phi$ [degrees]	Cohesion c [psf]
TP-3 @ 4.5'	—○—	Sandstone Bedrock	SM	Peak	42	440
TP-3 @ 4.5'	-●-	Sandstone Bedrock	SM	Ultimate	37	435
TP-3 @ 4.5'	--▲--	Sandstone Bedrock	SM	*Residual	N/A	N/A

Sample Moisture [%]	Saturated Moisture [%]	Dry Unit Weight [pcf]
24.5	47.9	71.0

Performed in General Accordance with ASTM D-3080

\*Residual shear strength results were determined from the lowest of the residual shears shown above.  
 (Individual residual shear results plotted with red dashed line above)



# EXPANSION INDEX TEST

(ASTM D4829)

BORING NUMBER  
AND SAMPLE DEPTH: TP-2 @ 1-6'

SOIL TYPE (USCS): SC

CONFINING PRESSURE (psf): 144

INITIAL MOISTURE CONTENT (%): 17.8

FINAL MOISTURE CONTENT (%): 40.2

DRY DENSITY (pcf): 81.1

EXPANSION INDEX: 51

EXPANSION POTENTIAL: Medium

DATE TESTED: 10/26/2021

TESTED BY: AM



GeoMat Testing Laboratories, Inc.  
9980 Indiana Ave, Suite 14  
Riverside, California

PRELIMINARY SOIL INVESTIGATION REPORT  
Proposed Single-Family Residence  
APN 5308-031-042  
South Pasadena, California

Project No. 21242-01  
Checked: 10/26/2021  
Checked by: HMN  
Exhibit: Appendix C



# GeoMat Testing Laboratories, Inc.

Soil Engineering, Environmental Engineering, Materials Testing, Geology

## SOLUBLE SULFATE AND CHLORIDE TEST RESULTS

Project Name	APN 5308-031-042, South Pasadena, CA	Test Date	10/25/2021
Project No.	21242-01	Date Sampled	10/11/2021
Project Location	APN 5308-031-042, South Pasadena, CA	Sampled By	EH
Location in Structure	TP-2 @ 1-6'	Sample Type	Bulk
Sampled Classification	SC	Tested By	AM

### TESTING INFORMATION

Sample weight before drying \_\_\_\_\_  
 Sample weight after drying \_\_\_\_\_  
 Sample Weight Passing No. 10 Sieve \_\_\_\_\_  
 Moisture (%) \_\_\_\_\_

Location	Mixing Ratio	Dilution Factor	Sulfate Reading (ppm)	Sulfate Content		Chloride Reading (ppm)	Chloride Content		pH
				(ppm)	(%)		(ppm)	(%)	
TP-2	3	1	125	375	0.0375				
			<b>Average</b>			<b>Average</b>			<b>Average</b>

ACI 318-19 Table 19.3.2.1 - Requirements for Concrete by Exposure Class

Exposure Class	Water-Soluble Sulfate (%)	Maximum w/cm	Minimum f'c (psi)	Cementitious Material (Types)			Calcium Chloride Admixture
				ASTM C150-	ASTM C595	ASTM C1157	
S0	<0.10	N/A	2500	No Type Restriction	No Type Restriction	No Type Restriction	No Restriction
S1	0.10 to 0.20	0.50	4000	II	Type IP, IS, or IT with (MS) Designation	MS	No Restriction
S2	0.20 to 2.00	0.45	4500	V	Type IP, IS, or IT with (HS) Designation	HS	Not Permitted
S3	Option 1	>2.00	4500	V + Pozzolan or Slag Cement	Type IP, IS, or IT with (HS) Designation + Pozzolan or Slag Cement	HS + Pozzolan or Slag Cement	Not Permitted
	Option 2	>2.00	5000	V	Types with (HS) designation	HS	Not Permitted
Exposure Class	Maximum w/cm	Minimum f'c (psi)	Maximum Water-Soluble Chloride ion (Cl <sup>-</sup> ) Content in Concrete, Percent by Wight of Cement		Additional Provisions		
			Nonprestressed Concrete	Prestressed Concrete			
C0	N/A	2500	1.00	0.06	None		
C1	N/A	2500	0.30	0.06	None		
C2	0.40	5000	0.15	0.06	Concrete Cover		

Caltrans classifies a site as corrosive to structural concrete as an area where soil and/or water contains >500pp chloride, >2000ppm sulfate, or has a pH <5.5. A minimum resistivity of less than 1000 ohm-cm indicates the potential for corrosive environment requiring testing for the above criteria.

The information in this form is not intended for corrosion engineering design. If corrosion is critical, a corrosion specialist should be contacted to provide further recommendations.



# APPENDIX D

## 2019 CBC SEISMIC DESIGN PARAMETERS



**GeoMat Testing Laboratories, Inc.**  
Geotechnical Engineering  
Engineering Geology  
Material Testing

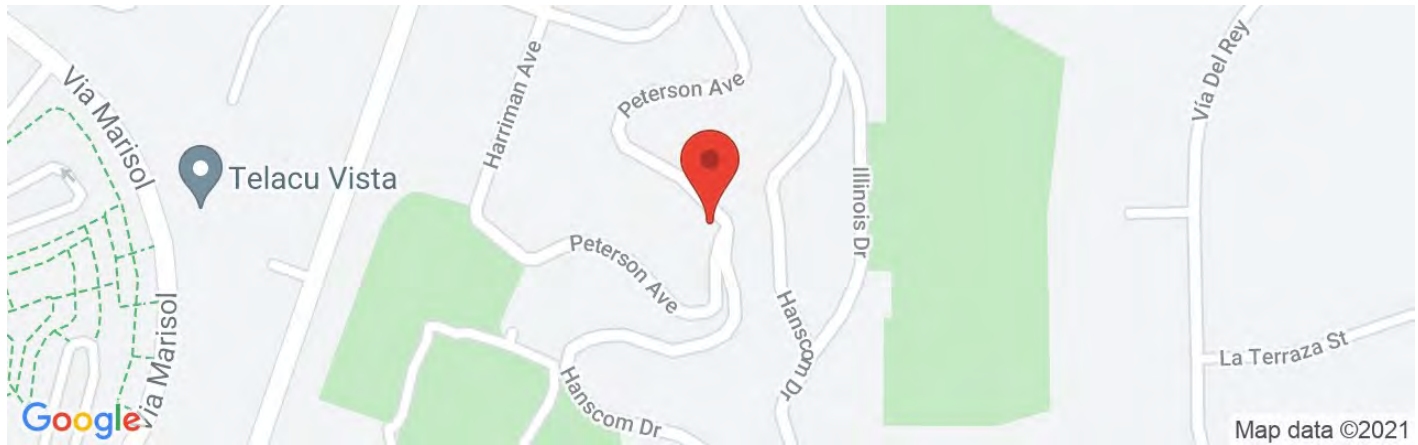
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Los Angeles, California 90045  
Office (310) 337-9400

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Latitude, Longitude: 34.101790, -118.174402



<b>Date</b>	10/26/2021, 9:48:25 AM
<b>Design Code Reference Document</b>	ASCE7-16
<b>Risk Category</b>	II
<b>Site Class</b>	C - Very Dense Soil and Soft Rock

Type	Value	Description
$S_S$	2.108	$MCE_R$ ground motion. (for 0.2 second period)
$S_1$	0.726	$MCE_R$ ground motion. (for 1.0s period)
$S_{MS}$	2.529	Site-modified spectral acceleration value
$S_{M1}$	1.017	Site-modified spectral acceleration value
$S_{DS}$	1.686	Numeric seismic design value at 0.2 second SA
$S_{D1}$	0.678	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
$F_a$	1.2	Site amplification factor at 0.2 second
$F_v$	1.4	Site amplification factor at 1.0 second
PGA	0.917	$MCE_G$ peak ground acceleration
$F_{PGA}$	1.2	Site amplification factor at PGA
$PGAM$	1.1	Site modified peak ground acceleration
$T_L$	8	Long-period transition period in seconds
$SsRT$	2.108	Probabilistic risk-targeted ground motion. (0.2 second)
$SsUH$	2.393	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
$SsD$	2.404	Factored deterministic acceleration value. (0.2 second)
$S1RT$	0.757	Probabilistic risk-targeted ground motion. (1.0 second)
$S1UH$	0.853	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
$S1D$	0.726	Factored deterministic acceleration value. (1.0 second)
$PGAd$	0.957	Factored deterministic acceleration value. (Peak Ground Acceleration)
$C_{RS}$	0.881	Mapped value of the risk coefficient at short periods
$C_{R1}$	0.887	Mapped value of the risk coefficient at a period of 1 s

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# APPENDIX E

## SLOPE STABILITY ANALYSIS



**GeoMat Testing Laboratories, Inc.**  
Geotechnical Engineering  
Engineering Geology  
Material Testing

**Inland Empire**  
9980 Indiana Ave, Suite 14  
Riverside, California 92503  
Office (951) 688-5400

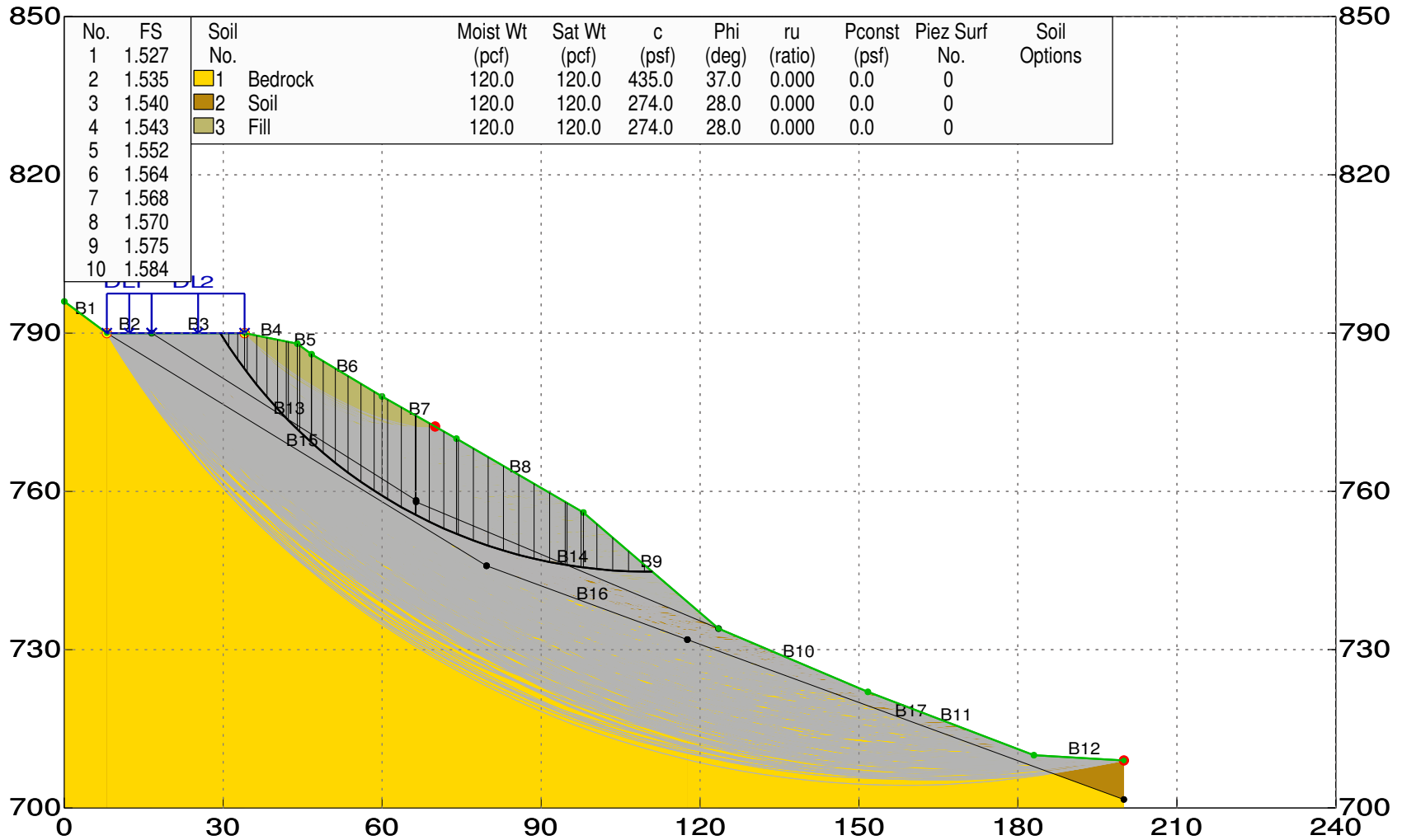
**Los Angeles**  
5714 W. 96<sup>th</sup> Street  
Los Angeles, California 90045  
Office (310) 337-9400

[geomatlabs.com](http://geomatlabs.com)

# APN 5308-031-042. Peterson Avenue Project No. 21242-01

GeoMat

\Static.gsd



GEOSTASE FS = 1.527

Spencer Method

\*\*\* GEOSTASE(R) \*\*\*

\*\* GEOSTASE(R) (c)Copyright by Garry H. Gregory, Ph.D., P.E.,D.GE \*\*

\*\* Current Version 4.30.31-Double Precision, August 2019 \*\*  
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\*\*\*\*\*

SLOPE STABILITY ANALYSIS SOFTWARE

Simplified Bishop, Simplified Janbu, or General Equilibrium (GE)

Options.

(Spencer, Morgenstern-Price, USACE, and Lowe & Karafiath)  
Including Pier/Pile, Planar Reinf, Nail, Tieback, Line Loads  
Applied Forces, Fiber-Reinforced Soil (FRS), Distributed Loads  
Nonlinear Undrained Shear Strength, Curved Strength Envelope,  
Anisotropic Strengths, Water Surfaces, 3-Stage Rapid Drawdown  
2- or 3-Stage Pseudo-Static & Simplified Newmark Seismic Analyses.

\*\*\*\*\*

Analysis Date: 11/ 24/ 2021  
Analysis Time:  
Analysis By: GeoMat

Input File Name: C:\Users\Abdullah\OneDrive - Geomat Testing  
Laboratories\GeoMat Reports\ANNUAL REPORTS\2021 REPORTS\21242.South Pasadena Hanscom  
Drive\Geostase\Static.gsd

Output File Name: C:\Users\Abdullah\OneDrive - Geomat Testing  
Laboratories\GeoMat Reports\ANNUAL REPORTS\2021 REPORTS\21242.South Pasadena Hanscom  
Drive\Geostase\Static.OUT

Unit System: English

PROJECT: APN 5308-031-042. Peterson Avenue

DESCRIPTION: Project No. 21242-01

BOUNDARY DATA

12 Surface Boundaries

17 Total Boundaries

Boundary No.	X - 1 (ft)	Y - 1 (ft)	X - 2 (ft)	Y - 2 (ft)	Soil Type Below Bnd
1	0.000	796.000	8.000	790.000	1
2	8.000	790.000	16.500	790.000	2
3	16.500	790.000	34.000	790.000	3
4	34.000	790.000	44.000	788.000	3
5	44.000	788.000	46.700	786.000	3
6	46.700	786.000	60.000	778.000	3
7	60.000	778.000	74.000	770.000	3
8	74.000	770.000	98.000	756.000	3
9	98.000	756.000	123.500	734.000	3
10	123.500	734.000	151.700	722.000	2
11	151.700	722.000	183.000	710.000	2
12	183.000	710.000	200.000	709.000	2
13	16.500	790.000	66.400	758.300	2
14	66.400	758.000	123.500	734.000	2
15	8.000	790.000	79.700	745.900	1
16	79.700	745.900	117.600	731.900	1
17	117.600	731.900	200.000	701.600	1

User Specified X-Origin = 0.000(ft)

User Specified Y-Origin = 700.000(ft)

MOHR-COULOMB SOIL PARAMETERS

3 Type(s) of Soil Defined

Soil Number	Moist Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Ratio (ru)	Pressure Constant (psf)
1 Bedrock 0 0	120.0	120.0	435.00	37.00	0.000	0.0
2 Soil 0 0	120.0	120.0	274.00	28.00	0.000	0.0
3 Fill 0 0	120.0	120.0	274.00	28.00	0.000	0.0

Drained Shear Strength Reduction Factor applied after first stage = 1.0000

DISTRIBUTED LOAD(S)

2 Load(s) Specified

Load Stress No. (psf)	BND No. Deflection (deg from Vert)	X - 1 (ft)	Y - 1 (ft)	Stress (psf)	X - 2 (ft)	Y - 2 (ft)
1 200.000	2 0.00	8.000	790.000	200.000	16.500	790.000
2 200.000	3 0.00	16.500	790.000	200.000	34.000	790.000

NOTE - Load Stress Varies Linearly Within Specified Range.  
For Multi-Stage Analysis, Refer to Detailed Output for Distributed  
Loads Applied to Each Stage.

TRIAL FAILURE SURFACE DATA

Circular Trial Failure Surfaces Have Been Generated Using A Random  
Procedure.

1000 Trial Surfaces Have Been Generated.

1000 Surfaces Generated at Increments of 0.3123(in) Equally Spaced  
Within the Start Range

Along The Specified Surface Between X = 8.00(ft)  
and X = 34.00(ft)

Each Surface Enters within a Range Between X = 70.00(ft)  
and X = 200.00(ft)

Unless XCLUDE Lines Were Specified, The Minimum Elevation  
To Which A Surface Extends Is Y = 700.00(ft)

Specified Maximum Radius = 10000.000(ft)

3.000(ft) Line Segments Were Used For Each Trial Failure Surface.

Restrictions Have Been Imposed Upon The Angle Of Initiation.  
The Angle Has Been Restricted Between The Angles Of -60.0  
And -40.0 deg.

The Spencer Method Was Selected for FS Analysis.



Selected fx function = Constant (1.0)

SELECTED CONVERGENCE PARAMETERS FOR SPENCER METHOD:

Initial estimate of FS = 1.500

FS tolerance = 0.000001000

Initial estimate of theta(deg) = 15.00

Theta tolerance(radians) = 0.0001000

Minimum theta(deg) = -45.00 ; Maximum theta(deg) = 45.00

Theta convergence Step Factor = 5000.00

Maximum number of iterations = 50

Allowable negative side force = -1000.0(lbs)

Maximum force imbalance = 100.000000(lbs)

Maximum moment imbalance = 100.000000 (ft/lbs)

Selected Lambda Coefficient = 1.00

Specified Tension Crack Water Depth Factor = 0.000

Total Number of Trial Surfaces Attempted = 1000

WARNING! The Factor of Safety Calculation for one or More Trial Surfaces Did Not Converge in 50 Iterations.

Number of Trial Surfaces with Non-Converged FS = 255

Number of Trial Surfaces With Valid FS = 745

Percentage of Trial Surfaces With Non-Converged and/or Non-Valid FS Solutions of the Total Attempted = 25.5 %

Statistical Data On All Valid FS Values:

FS Max = 3.834 FS Min = 1.527 FS Ave = 2.164

Standard Deviation = 0.370 Coefficient of Variation = 17.08 %

Critical Surface is Sequence Number 667 of Those Analyzed.

\*\*\*\*\*BEGINNING OF DETAILED GEOSTASE OUTPUT FOR CRITICAL SURFACE FROM A SEARCH\*\*\*\*\*

BACK-CALCULATED CIRCULAR SURFACE PARAMETERS:

Circle Center At X = 110.081595(ft) ; Y = 839.303682(ft); and Radius = 94.514769(ft)

Circular Trial Failure Surface Generated With 34 Coordinate Points

Point No.	X-Coord. (ft)	Y-Coord. (ft)
1	29.445	790.000
2	31.051	787.466
3	32.736	784.984
4	34.499	782.556
5	36.338	780.186
6	38.251	777.875
7	40.237	775.627
8	42.293	773.442
9	44.417	771.324
10	46.608	769.274
11	48.863	767.295
12	51.179	765.388
13	53.554	763.556
14	55.987	761.800
15	58.474	760.122
16	61.013	758.524
17	63.601	757.008
18	66.236	755.574
19	68.916	754.225
20	71.637	752.961
21	74.396	751.785
22	77.192	750.696
23	80.021	749.697
24	82.880	748.788
25	85.766	747.970
26	88.677	747.245
27	91.609	746.612
28	94.560	746.072
29	97.527	745.626
30	100.506	745.275
31	103.495	745.019
32	106.491	744.857
33	109.490	744.791
34	110.976	744.805

Iter. No.	Theta (deg) (fx=1.0)	FS (Moment)	FS (Force)	Lambda	Delta FS
1	-15.0000	0.000000	1.490886	-0.268	0.1490886E+01
2	-19.9500	2.460124	1.507846	-0.363	0.9522787E+00
3	-18.0200	0.000000	1.501104	-0.325	0.1501104E+01
4	-19.2010	3.598683	1.505208	-0.348	0.2093475E+01
5	-18.5131	0.000000	1.502809	-0.335	0.1502809E+01
6	-18.8005	6.356912	1.503808	-0.340	0.4853103E+01
7	-18.5811	19.228150	1.503045	-0.336	0.1772511E+02

8	-18.8832	5.328459	1.504097	-0.342	0.3824362E+01
9	-18.9663	4.656350	1.504387	-0.344	0.3151964E+01
10	-19.3556	3.209428	1.505750	-0.351	0.1703678E+01
11	-19.8133	2.575293	1.507362	-0.360	0.1067931E+01
12	-20.5820	2.115333	1.510094	-0.376	0.6052385E+00
13	-21.5872	1.846080	1.513715	-0.396	0.3323648E+00
14	-22.8110	1.681279	1.518202	-0.421	0.1630774E+00
15	-23.9894	1.589707	1.522610	-0.445	0.6709688E-01
16	-24.8129	1.545487	1.525745	-0.462	0.1974139E-01
17	-25.1559	1.530235	1.527065	-0.470	0.3169797E-02
18	-25.2214	1.527496	1.527318	-0.471	0.1779044E-03
19	-25.2253	1.527335	1.527333	-0.471	0.1997693E-05
20	-25.2254	1.527333	1.527333	-0.471	0.2324391E-06

Factor Of Safety For The Preceding Specified Surface = 1.527  
Theta (fx = 1.0) = -25.23 Deg      Lambda = -0.471

The Spencer Method Has Been Selected For Analysis.

Selected fx function = Constant (1.0)

SELECTED CONVERGENCE PARAMETERS FOR ANALYSIS METHOD:

Initial estimate of FS = 1.500

FS tolerance = 0.000001000

Initial estimate of theta(deg) = 15.00

Theta tolerance(radians) = 0.0001000

Minimum theta(deg) = -45.00 ; Maximum theta(deg) = 45.00

Theta convergence Step Factor = 5000.00

Maximum number of iterations = 50

Maximum force imbalance = 100.000000(lbs)

Maximum moment imbalance(if Applicable) = 100.000000 (ft/lbs)

Selected Lambda Coefficient = 1.00

Tension Crack Water Force = 0.00(lbs)

Specified Tension Crack Water Depth Factor = 0.000

Depth of Tension Crack (zo) at Side of First Slice = 0.000(ft)

Depth of Water in Tension Crack = 0.000(ft)

Theoretical Tension Crack Depth = 7.600(ft)

NOTE: In Table 1 following, when a tension crack with water is present on  
the first slice (right facing slope) or on the last slice (left facing slope),

the

"side force" in the tension crack is set equal to the water pressure resultant.

\*\*\* Table 1 - Line of Thrust(if applicable) and Slice Force Data

\*\*\*

Vert. Shear Force(lbs)	Slice No.	X Coord.	Y Coord.	h/H	Side Force (lbs)	fx	Force Angle (Deg)
0.0	1	29.45	790.00	0.000	0.00	1.000	0.00
68.6	2	31.05	788.73	0.500	-161.07	1.000	-25.23
4.2	3	32.74	820.70	1.000+	-9.75	1.000	-25.23
-121.1	4	34.00	782.57	0.000-	284.09	1.000	-25.23
-163.1	5	34.50	782.45	0.000-	382.59	1.000	-25.23
-375.8	6	36.34	781.22	0.110	881.88	1.000	-25.23
-683.2	7	38.25	779.54	0.147	1603.06	1.000	-25.23
-1075.1	8	40.24	777.76	0.162	2522.53	1.000	-25.23
-1442.0	9	41.89	776.31	0.168	3383.66	1.000	-25.23
-1540.1	10	42.29	775.96	0.169	3613.77	1.000	-25.23
-1956.4	11	44.00	774.52	0.171	4590.45	1.000	-25.23
-2064.9	12	44.42	774.17	0.174	4845.24	1.000	-25.23
-2601.1	13	46.61	772.45	0.189	6103.34	1.000	-25.23
-2622.0	14	46.70	772.38	0.190	6152.42	1.000	-25.23
-3126.3	15	48.86	770.78	0.200	7335.58	1.000	-25.23
-3636.2	16	51.18	769.14	0.209	8532.08	1.000	-25.23
-4119.5	17	53.55	767.54	0.217	9666.17	1.000	-25.23
-4565.4	18	55.99	765.97	0.224	10712.27	1.000	-25.23
	19	58.47	764.45	0.230	11646.27	1.000	-25.23

-4963.4							
	20	60.00	763.55	0.233	12126.39	1.000	-25.23
-5168.0							
	21	61.01	762.96	0.235	12446.35	1.000	-25.23
-5304.4							
	22	63.60	761.51	0.238	13095.96	1.000	-25.23
-5581.2							
	23	66.24	760.11	0.240	13577.35	1.000	-25.23
-5786.4							
	24	66.40	760.03	0.241	13595.74	1.000	-25.23
-5794.2							
	25	68.92	758.75	0.242	13874.60	1.000	-25.23
-5913.1							
	26	71.64	757.43	0.243	13974.87	1.000	-25.23
-5955.8							
	27	74.00	756.35	0.244	13884.60	1.000	-25.23
-5917.3							
	28	74.40	756.17	0.244	13868.76	1.000	-25.23
-5910.6							
	29	77.19	754.95	0.244	13550.44	1.000	-25.23
-5774.9							
	30	80.02	753.79	0.244	13018.89	1.000	-25.23
-5548.4							
	31	82.88	752.67	0.242	12278.00	1.000	-25.23
-5232.6							
	32	85.77	751.61	0.240	11336.55	1.000	-25.23
-4831.4							
	33	88.68	750.61	0.237	10208.61	1.000	-25.23
-4350.7							
	34	91.61	749.66	0.232	8913.91	1.000	-25.23
-3798.9							
	35	94.56	748.77	0.226	7478.24	1.000	-25.23
-3187.1							
	36	94.90	748.68	0.226	7296.25	1.000	-25.23
-3109.5							
	37	97.53	747.96	0.219	5933.91	1.000	-25.23
-2528.9							
	38	98.00	747.84	0.217	5668.74	1.000	-25.23
-2415.9							
	39	100.51	747.21	0.226	4348.89	1.000	-25.23
-1853.4							
	40	103.50	746.53	0.242	2840.71	1.000	-25.23
-1210.7							
	41	106.49	745.91	0.276	1495.86	1.000	-25.23
-637.5							
	42	109.49	745.50	0.546	410.94	1.000	-25.23
-175.1							

NOTE: A value of 0.000- for h/H indicates that the line of thrust is at or below

the lower boundary of the sliding mass. A value of 1.000+ for h/H indicates that the line of thrust is at or above the upper boundary of the sliding mass.

\*\*\*Table 2 - Geometry Data on the 42 Slices\*\*\*

Slice Length No. (ft)	Width (ft)	Height (ft)	X-Cntr (ft)	Y-Cntr-Base (ft)	Y-Cntr-Top (ft)	Alpha (deg)	Beta (deg)	Base
1	1.61	1.27	30.25	788.73	790.00	-57.65	0.00	
3.00								
2	1.68	3.78	31.89	786.22	790.00	-55.83	0.00	
3.00								
3	1.26	5.89	33.37	784.11	790.00	-54.01	0.00	
2.15								
4	0.50	7.05	34.25	782.90	789.95	-54.01	-11.31	
0.85								
5	1.84	8.35	35.42	781.37	789.72	-52.19	-11.31	
3.00								
6	1.91	10.31	37.29	779.03	789.34	-50.37	-11.31	
3.00								
7	1.99	12.20	39.24	776.75	788.95	-48.55	-11.31	
3.00								
8	1.65	13.84	41.06	774.75	788.59	-46.74	-11.31	
2.41								
9	0.40	14.73	42.09	773.66	788.38	-46.74	-11.31	
0.59								
10	1.71	15.58	43.15	772.59	788.17	-44.92	-11.31	
2.41								
11	0.42	16.31	44.21	771.53	787.85	-44.92	-36.53	
0.59								
12	2.19	16.58	45.51	770.30	786.88	-43.10	-36.53	
3.00								
13	0.09	16.80	46.65	769.23	786.03	-41.28	-36.53	
0.12								
14	2.16	17.11	47.78	768.24	785.35	-41.28	-31.03	
2.88								
15	2.32	17.66	50.02	766.34	784.00	-39.46	-31.03	
3.00								
16	2.38	18.12	52.37	764.47	782.59	-37.64	-31.03	
3.00								
17	2.43	18.47	54.77	762.68	781.15	-35.82	-31.03	
3.00								
18	2.49	18.70	57.23	760.96	779.67	-34.00	-31.03	
3.00								
19	1.53	18.82	59.24	759.64	778.46	-32.19	-31.03	

1.80							
20	1.01	18.87	60.51	758.84	777.71	-32.19	-29.74
1.20							
21	2.59	18.92	62.31	757.77	776.68	-30.37	-29.74
3.00							
22	2.64	18.90	64.92	756.29	775.19	-28.55	-29.74
3.00							
23	0.16	18.86	66.32	755.53	774.39	-26.73	-29.74
0.18							
24	2.52	18.77	67.66	754.86	773.62	-26.73	-29.74
2.82							
25	2.72	18.53	70.28	753.59	772.13	-24.91	-29.74
3.00							
26	2.36	18.22	72.82	752.46	770.68	-23.09	-29.74
2.57							
27	0.40	18.02	74.20	751.87	769.88	-23.09	-30.26
0.43							
28	2.80	17.71	75.79	751.24	768.95	-21.27	-30.26
3.00							
29	2.83	17.12	78.61	750.20	767.31	-19.45	-30.26
3.00							
30	2.86	16.41	81.45	749.24	765.65	-17.64	-30.26
3.00							
31	2.89	15.60	84.32	748.38	763.98	-15.82	-30.26
3.00							
32	2.91	14.68	87.22	747.61	762.29	-14.00	-30.26
3.00							
33	2.93	13.66	90.14	746.93	760.58	-12.18	-30.26
3.00							
34	2.95	12.53	93.08	746.34	758.87	-10.36	-30.26
3.00							
35	0.34	11.86	94.73	746.05	757.91	-8.54	-30.26
0.34							
36	2.63	11.22	96.21	745.82	757.04	-8.54	-30.26
2.66							
37	0.47	10.54	97.76	745.60	756.14	-6.72	-30.26
0.48							
38	2.51	9.50	99.25	745.42	754.92	-6.72	-40.79
2.52							
39	2.99	7.40	102.00	745.15	752.55	-4.91	-40.79
3.00							
40	3.00	5.03	104.99	744.94	749.97	-3.09	-40.79
3.00							
41	3.00	2.56	107.99	744.82	747.38	-1.27	-40.79
3.00							
42	1.49	0.65	110.23	744.80	745.45	0.55	-40.79
1.49							

\*\*\*Table 2A - Coordinates of Slice Points Defining the Slip Surface\*\*\*

Point No.	X-Pt (ft)	Y-Pt (ft)
1	29.445445	790.000000
2	31.050820	787.465681
3	32.735818	784.983589
4	34.000000	783.242940
5	34.498742	782.556224
6	36.337815	780.186032
7	38.251184	777.875401
8	40.236922	775.626658
9	41.889537	773.870775
10	42.293029	773.442070
11	44.000000	771.740056
12	44.417432	771.323837
13	46.607992	769.274093
14	46.700000	769.193321
15	48.862501	767.294904
16	51.178687	765.388263
17	53.554219	763.556092
18	55.986701	761.800236
19	58.473684	760.122465
20	60.000000	759.161823
21	61.012661	758.524468
22	63.601075	757.007856
23	66.236319	755.574157
24	66.400000	755.491728
25	68.915736	754.224815
26	71.636627	752.961189
27	74.000000	751.953505
28	74.396252	751.784553
29	77.191829	750.696092
30	80.020543	749.696903
31	82.879543	748.787993
32	85.765949	747.970276
33	88.676853	747.244578
34	91.609322	746.611628
35	94.560402	746.072066
36	94.899855	746.021077
37	97.527119	745.626434
38	98.000000	745.570684
39	100.506485	745.275181
40	103.495498	745.018662
41	106.491146	744.857135
42	109.490412	744.790761
43	110.975968	744.805047





21	5875.4	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
22	5976.2	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
23	370.4	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
24	5665.2	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
25	6051.8	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
26	5166.7	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
27	856.6	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
28	5942.2	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
29	5810.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
30	5630.5	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
31	5403.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
32	5127.9	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
33	4805.2	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
34	4435.6	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
35	483.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
36	3536.8	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
37	598.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
38	2856.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
39	2654.7	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
40	1807.7	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
41	920.1	0.0	0.0	0.0	0.0	0.0	0.0
0.00							
42	115.5	0.0	0.0	0.0	0.0	0.0	0.0
0.00							

\*\*\*Table 3B - Center of Pressure of Distributed Loads On the 42 Slices\*\*\*  
Only Applicable Slices Listed

Slice	X-Dload	Y-Dload	Dist-Load	Dload-Moment
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No.	(ft)	(ft)	(lbs)	(ft/lbs)
1	30.25	790.00	0.321075E+03	0.000000E+00
2	31.89	790.00	0.337000E+03	0.000000E+00
3	33.37	790.00	0.252836E+03	0.000000E+00
4	33.97	790.00	0.122967E+02	0.000000E+00
5	33.99	790.00	0.393494E+01	0.000000E+00
6	33.96	790.00	0.151975E+02	0.000000E+00
7	33.95	790.00	0.193802E+02	0.000000E+00
8	33.97	790.00	0.111624E+02	0.000000E+00
9	33.91	790.00	0.357776E+02	0.000000E+00
10	33.89	790.00	0.440755E+02	0.000000E+00
11	33.90	790.00	0.394327E+02	0.000000E+00
12	33.79	790.00	0.840307E+02	0.000000E+00
13	33.66	790.00	0.134449E+03	0.000000E+00
14	33.80	790.00	0.803190E+02	0.000000E+00
15	33.72	790.00	0.111597E+03	0.000000E+00
16	33.86	790.00	0.568128E+02	0.000000E+00
17	33.84	790.00	0.640994E+02	0.000000E+00

TOTAL WEIGHT OF SLIDING MASS = 132762.36(lbs)

EFFECTIVE WEIGHT OF SLIDING MASS = 132762.36(lbs)

TOTAL AREA OF SLIDING MASS = 1106.35(ft<sup>2</sup>)

\*\*\*TABLE 4 - SOIL STRENGTH & SOIL OPTIONS DATA ON THE 42 SLICES\*\*\*

Slice No.	Soil Type	Cohesion (psf)	Phi(Deg)	Options
1	3	274.00	28.00	
2	3	274.00	28.00	
3	3	274.00	28.00	
4	3	274.00	28.00	
5	3	274.00	28.00	
6	3	274.00	28.00	
7	3	274.00	28.00	
8	3	274.00	28.00	
9	2	274.00	28.00	
10	2	274.00	28.00	
11	2	274.00	28.00	
12	2	274.00	28.00	
13	2	274.00	28.00	
14	2	274.00	28.00	
15	2	274.00	28.00	
16	2	274.00	28.00	
17	2	274.00	28.00	
18	2	274.00	28.00	
19	2	274.00	28.00	
20	2	274.00	28.00	

21	2	274.00	28.00
22	2	274.00	28.00
23	2	274.00	28.00
24	2	274.00	28.00
25	2	274.00	28.00
26	2	274.00	28.00
27	2	274.00	28.00
28	2	274.00	28.00
29	2	274.00	28.00
30	2	274.00	28.00
31	2	274.00	28.00
32	2	274.00	28.00
33	2	274.00	28.00
34	2	274.00	28.00
35	2	274.00	28.00
36	3	274.00	28.00
37	3	274.00	28.00
38	3	274.00	28.00
39	3	274.00	28.00
40	3	274.00	28.00
41	3	274.00	28.00
42	3	274.00	28.00

SOIL OPTIONS:

A = ANISOTROPIC SHEAR STRENGTH

C = CURVED STRENGTH ENVELOPE (TANGENT PHI & C)

F = FIBER-REINFORCED SOIL (FRS)

M = INDEPENDENT MULTI-STAGE SHEAR STRENGTH

N = NONLINEAR UNDRAINED SHEAR STRENGTH

R = RAPID DRAWDOWN OR RAPID LOADING (SEISMIC) SHEAR STRENGTH

NOTE: Phi and C in Table 4 are modified values based on specified Soil Options (if any).

\*\*\*TABLE 5 - Total Base Stress Data on the 42 Slices\*\*\*

Slice No.	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Total Normal Stress (psf)	Total Vert. Stress (psf)	Total Stress
1	-57.65	30.25	3.00	72.03	352.06	
0.205						
2	-55.83	31.89	3.00	231.69	653.04	
0.355						
3	-54.01	33.37	2.15	378.77	906.41	
0.418						
4	-54.01	34.25	0.85	348.05	846.07	

0.411					
5	-52.19	35.42	3.00	451.80	1001.43
0.451					
6	-50.37	37.29	3.00	605.44	1237.25
0.489					
7	-48.55	39.24	3.00	762.80	1464.02
0.521					
8	-46.74	41.06	2.41	911.00	1660.64
0.549					
9	-46.74	42.09	0.59	973.35	1767.04
0.551					
10	-44.92	43.15	2.41	1074.02	1869.56
0.574					
11	-44.92	44.21	0.59	1127.30	1957.61
0.576					
12	-43.10	45.51	3.00	1189.54	1989.66
0.598					
13	-41.28	46.65	0.12	1249.41	2016.04
0.620					
14	-41.28	47.78	2.88	1272.96	2052.66
0.620					
15	-39.46	50.02	3.00	1361.36	2119.33
0.642					
16	-37.64	52.37	3.00	1444.62	2174.33
0.664					
17	-35.82	54.77	3.00	1521.08	2216.09
0.686					
18	-34.00	57.23	3.00	1590.05	2244.56
0.708					
19	-32.19	59.24	1.80	1649.61	2258.03
0.731					
20	-32.19	60.51	1.20	1654.11	2264.10
0.731					
21	-30.37	62.31	3.00	1709.17	2269.88
0.753					
22	-28.55	64.92	3.00	1759.16	2267.80
0.776					
23	-26.73	66.32	0.18	1807.66	2262.80
0.799					
24	-26.73	67.66	2.82	1798.93	2251.90
0.799					
25	-24.91	70.28	3.00	1829.40	2224.19
0.823					
26	-23.09	72.82	2.57	1851.16	2186.15
0.847					
27	-23.09	74.20	0.43	1830.66	2161.85
0.847					
28	-21.27	75.79	3.00	1853.08	2125.58
0.872					
29	-19.45	78.61	3.00	1843.95	2053.99

0.898						
30	-17.64	81.45	3.00	1821.25	1969.40	
0.925						
31	-15.82	84.32	3.00	1784.13	1871.91	
0.953						
32	-14.00	87.22	3.00	1731.73	1761.61	
0.983						
33	-12.18	90.14	3.00	1663.09	1638.61	
1.015						
34	-10.36	93.08	3.00	1577.18	1503.04	
1.049						
35	-8.54	94.73	0.34	1544.10	1423.30	
1.085						
36	-8.54	96.21	2.66	1463.71	1346.21	
1.087						
37	-6.72	97.76	0.48	1424.10	1264.72	
1.126						
38	-6.72	99.25	2.52	1289.83	1139.50	
1.132						
39	-4.91	102.00	3.00	1056.24	888.15	
1.189						
40	-3.09	104.99	3.00	770.62	603.44	
1.277						
41	-1.27	107.99	3.00	453.48	306.79	
1.478						
42	0.55	110.23	1.49	198.04	77.76	
2.547						

\*\*\*TABLE 5A - Total Base Force Data on the 42 Slices\*\*\*

Slice No.	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Total Normal Force (lbs)	Total Vert. Force (lbs)	Total Force
1	-57.65	30.25	3.00	216.09	565.19	
0.382						
2	-55.83	31.89	3.00	695.08	1100.38	
0.632						
3	-54.01	33.37	2.15	814.85	1145.86	
0.711						
4	-54.01	34.25	0.85	295.40	421.97	
0.700						
5	-52.19	35.42	3.00	1355.41	1841.70	
0.736						
6	-50.37	37.29	3.00	1816.31	2367.31	
0.767						
7	-48.55	39.24	3.00	2288.40	2907.16	

0.787					
8	-46.74	41.06	2.41	2196.67	2744.39
0.800					
9	-46.74	42.09	0.59	573.03	712.99
0.804					
10	-44.92	43.15	2.41	2588.95	3191.28
0.811					
11	-44.92	44.21	0.59	664.52	817.17
0.813					
12	-43.10	45.51	3.00	3568.61	4358.47
0.819					
13	-41.28	46.65	0.12	152.97	185.49
0.825					
14	-41.28	47.78	2.88	3663.03	4438.88
0.825					
15	-39.46	50.02	3.00	4084.09	4908.76
0.832					
16	-37.64	52.37	3.00	4333.87	5165.19
0.839					
17	-35.82	54.77	3.00	4563.24	5390.60
0.847					
18	-34.00	57.23	3.00	4770.16	5582.19
0.855					
19	-32.19	59.24	1.80	2975.02	3446.46
0.863					
20	-32.19	60.51	1.20	1979.20	2292.77
0.863					
21	-30.37	62.31	3.00	5127.52	5875.38
0.873					
22	-28.55	64.92	3.00	5277.48	5976.20
0.883					
23	-26.73	66.32	0.18	331.28	370.38
0.894					
24	-26.73	67.66	2.82	5067.11	5665.18
0.894					
25	-24.91	70.28	3.00	5488.19	6051.77
0.907					
26	-23.09	72.82	2.57	4756.06	5166.68
0.921					
27	-23.09	74.20	0.43	788.59	856.64
0.921					
28	-21.27	75.79	3.00	5559.25	5942.22
0.936					
29	-19.45	78.61	3.00	5531.85	5810.14
0.952					
30	-17.64	81.45	3.00	5463.74	5630.52
0.970					
31	-15.82	84.32	3.00	5352.40	5403.10
0.991					
32	-14.00	87.22	3.00	5195.19	5127.88

1.013						
33	-12.18	90.14	3.00	4989.26	4805.18	
1.038						
34	-10.36	93.08	3.00	4731.54	4435.59	
1.067						
35	-8.54	94.73	0.34	530.03	483.15	
1.097						
36	-8.54	96.21	2.66	3888.69	3536.84	
1.099						
37	-6.72	97.76	0.48	678.10	598.06	
1.134						
38	-6.72	99.25	2.52	3255.32	2856.14	
1.140						
39	-4.91	102.00	3.00	3168.71	2654.69	
1.194						
40	-3.09	104.99	3.00	2311.87	1807.69	
1.279						
41	-1.27	107.99	3.00	1360.45	920.13	
1.479						
42	0.55	110.23	1.49	294.21	115.51	
2.547						

\*\*\*TABLE 6 - Effective and Base Shear Stress Data on the 42 Slices\*\*\*

Slice Mobilized Stress *	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Effective Normal Stress (psf)	Available Shear Strength (psf)	Shear (psf)
1	-57.65	30.25	3.00	72.03	312.30	
204.47						
2	-55.83	31.89	3.00	231.69	397.19	
260.06						
3	-54.01	33.37	2.15	378.77	475.40	
311.26						
4	-54.01	34.25	0.85	348.05	459.06	
300.56						
5	-52.19	35.42	3.00	451.80	514.23	
336.68						
6	-50.37	37.29	3.00	605.44	595.92	
390.17						
7	-48.55	39.24	3.00	762.80	679.59	
444.95						
8	-46.74	41.06	2.41	911.00	758.39	
496.54						
9	-46.74	42.09	0.59	973.35	791.54	
518.25						
10	-44.92	43.15	2.41	1074.02	845.07	



553.30					
11	-44.92	44.21	0.59	1127.30	873.39
571.84					
12	-43.10	45.51	3.00	1189.54	906.49
593.51					
13	-41.28	46.65	0.12	1249.41	938.33
614.36					
14	-41.28	47.78	2.88	1272.96	950.84
622.55					
15	-39.46	50.02	3.00	1361.36	997.85
653.33					
16	-37.64	52.37	3.00	1444.62	1042.12
682.31					
17	-35.82	54.77	3.00	1521.08	1082.77
708.93					
18	-34.00	57.23	3.00	1590.05	1119.45
732.94					
19	-32.19	59.24	1.80	1649.61	1151.12
753.68					
20	-32.19	60.51	1.20	1654.11	1153.50
755.24					
21	-30.37	62.31	3.00	1709.17	1182.78
774.41					
22	-28.55	64.92	3.00	1759.16	1209.36
791.81					
23	-26.73	66.32	0.18	1807.66	1235.15
808.70					
24	-26.73	67.66	2.82	1798.93	1230.51
805.66					
25	-24.91	70.28	3.00	1829.40	1246.71
816.26					
26	-23.09	72.82	2.57	1851.16	1258.28
823.84					
27	-23.09	74.20	0.43	1830.66	1247.38
816.70					
28	-21.27	75.79	3.00	1853.08	1259.30
824.51					
29	-19.45	78.61	3.00	1843.95	1254.45
821.33					
30	-17.64	81.45	3.00	1821.25	1242.37
813.43					
31	-15.82	84.32	3.00	1784.13	1222.64
800.51					
32	-14.00	87.22	3.00	1731.73	1194.78
782.26					
33	-12.18	90.14	3.00	1663.09	1158.28
758.37					
34	-10.36	93.08	3.00	1577.18	1112.60
728.46					
35	-8.54	94.73	0.34	1544.10	1095.01

716.94					
36	-8.54	96.21	2.66	1463.71	1052.27
688.96					
37	-6.72	97.76	0.48	1424.10	1031.21
675.17					
38	-6.72	99.25	2.52	1289.83	959.81
628.42					
39	-4.91	102.00	3.00	1056.24	835.61
547.10					
40	-3.09	104.99	3.00	770.62	683.75
447.67					
41	-1.27	107.99	3.00	453.48	515.12
337.27					
42	0.55	110.23	1.49	198.04	379.30
248.34					

\*\*\*TABLE 6A - Effective and Base Shear Force Data on the 42 Slices\*\*\*

Slice Mobilized Force *	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Effective Normal Force (lbs)	Available Shear Force (lbs)	Shear
1	-57.65	30.25	3.00	216.09	936.89	
613.42						
2	-55.83	31.89	3.00	695.08	1191.58	
780.17						
3	-54.01	33.37	2.15	814.85	1022.71	
669.61						
4	-54.01	34.25	0.85	295.40	389.61	
255.09						
5	-52.19	35.42	3.00	1355.41	1542.69	
1010.05						
6	-50.37	37.29	3.00	1816.31	1787.75	
1170.50						
7	-48.55	39.24	3.00	2288.40	2038.76	
1334.85						
8	-46.74	41.06	2.41	2196.67	1828.68	
1197.30						
9	-46.74	42.09	0.59	573.03	466.00	
305.11						
10	-44.92	43.15	2.41	2588.95	2037.05	
1333.73						
11	-44.92	44.21	0.59	664.52	514.85	
337.09						
12	-43.10	45.51	3.00	3568.61	2719.46	
1780.53						

13	-41.28	46.65	0.12	152.97	114.88
75.22					
14	-41.28	47.78	2.88	3663.03	2736.12
1791.44					
15	-39.46	50.02	3.00	4084.09	2993.55
1959.98					
16	-37.64	52.37	3.00	4333.87	3126.36
2046.94					
17	-35.82	54.77	3.00	4563.24	3248.32
2126.79					
18	-34.00	57.23	3.00	4770.16	3358.34
2198.82					
19	-32.19	59.24	1.80	2975.02	2075.99
1359.23					
20	-32.19	60.51	1.20	1979.20	1380.21
903.67					
21	-30.37	62.31	3.00	5127.52	3548.35
2323.23					
22	-28.55	64.92	3.00	5277.48	3628.09
2375.44					
23	-26.73	66.32	0.18	331.28	226.36
148.21					
24	-26.73	67.66	2.82	5067.11	3466.02
2269.32					
25	-24.91	70.28	3.00	5488.19	3740.12
2448.79					
26	-23.09	72.82	2.57	4756.06	3232.81
2116.64					
27	-23.09	74.20	0.43	788.59	537.33
351.81					
28	-21.27	75.79	3.00	5559.25	3777.91
2473.53					
29	-19.45	78.61	3.00	5531.85	3763.34
2463.99					
30	-17.64	81.45	3.00	5463.74	3727.12
2440.28					
31	-15.82	84.32	3.00	5352.40	3667.92
2401.52					
32	-14.00	87.22	3.00	5195.19	3584.33
2346.79					
33	-12.18	90.14	3.00	4989.26	3474.83
2275.10					
34	-10.36	93.08	3.00	4731.54	3337.81
2185.38					
35	-8.54	94.73	0.34	530.03	375.88
246.10					
36	-8.54	96.21	2.66	3888.69	2795.60
1830.38					
37	-6.72	97.76	0.48	678.10	491.02
321.49					

38	-6.72	99.25	2.52	3255.32	2422.42
1586.05					
39	-4.91	102.00	3.00	3168.71	2506.83
1641.31					
40	-3.09	104.99	3.00	2311.87	2051.25
1343.02					
41	-1.27	107.99	3.00	1360.45	1545.37
1011.81					
42	0.55	110.23	1.49	294.21	563.49
368.94					

Average Effective Normal Stress = 1259.0752(psf)  
Average Available Shear Strength = 943.4621(psf)  
Total Length of Failure Surface = 97.4856(ft)

SUM OF MOMENTS =  $-0.225307E-01$  (ft/lbs); Imbalance (Fraction of Total Weight) =  $-0.1697068E-06$   
SUM OF FORCES =  $-.207249E-04$  (lbs); Imbalance (Fraction of Total Weight) =  $-0.1561052E-09$

Sum of Available Shear Forces = 91974.00(lbs)

Sum of Mobilized Shear Forces = 60218.68(lbs)

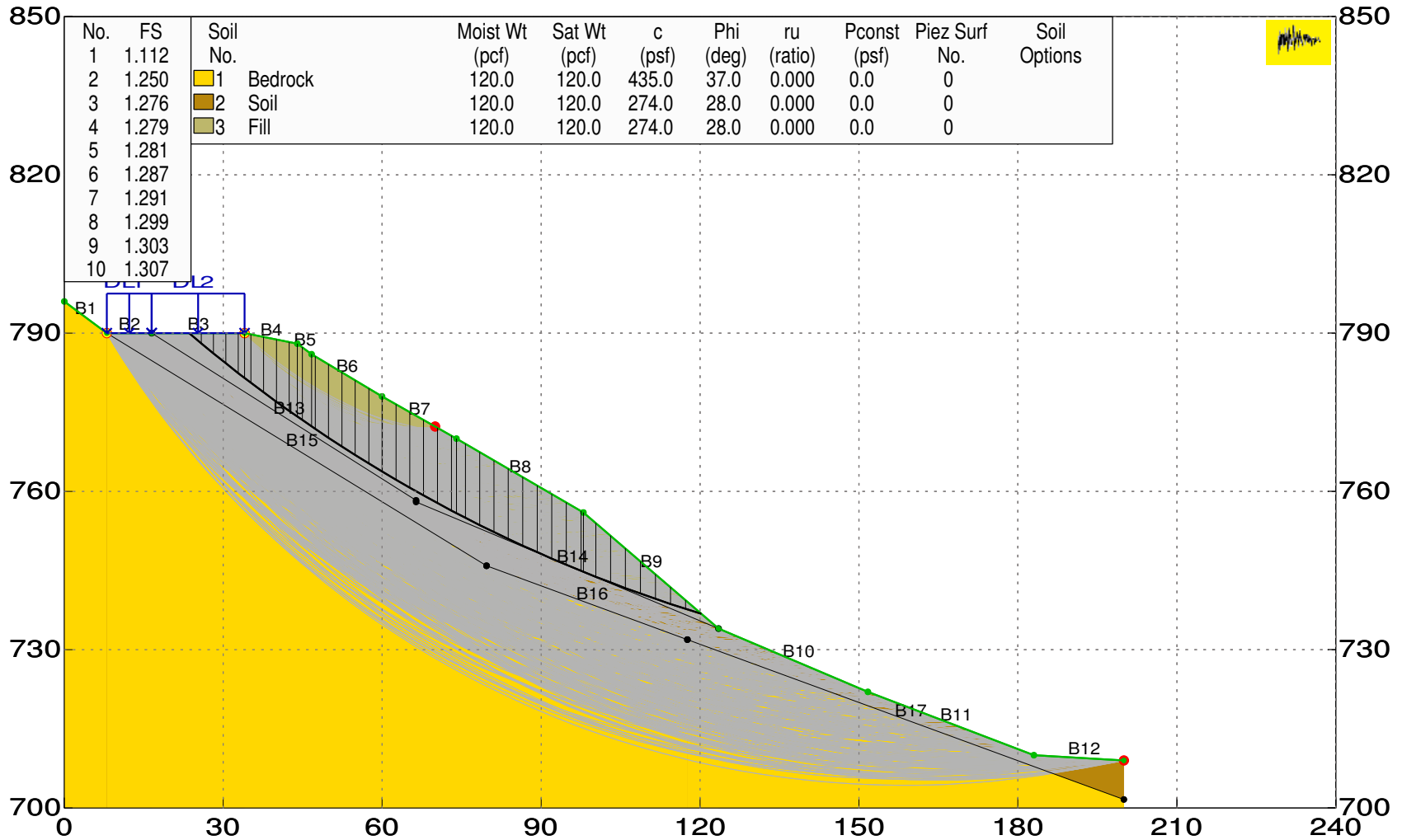
FS Balance Check: FS = 1.527333

\*\*\*\* END OF GEOSTASE OUTPUT \*\*\*\*

# APN 5308-031-042. Peterson Avenue Project No. 21242-01

GeoMat

\Seismic.gsd



GEOSTASE FS = 1.112

Spencer Method

kh = 0.15000

\*\*\* GEOSTASE(R) \*\*\*

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\*\* Current Version 4.30.31-Double Precision, August 2019 \*\*  
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\*\*\*\*\*

SLOPE STABILITY ANALYSIS SOFTWARE

Simplified Bishop, Simplified Janbu, or General Equilibrium (GE)

Options.

(Spencer, Morgenstern-Price, USACE, and Lowe & Karafiath)  
Including Pier/Pile, Planar Reinf, Nail, Tieback, Line Loads  
Applied Forces, Fiber-Reinforced Soil (FRS), Distributed Loads  
Nonlinear Undrained Shear Strength, Curved Strength Envelope,  
Anisotropic Strengths, Water Surfaces, 3-Stage Rapid Drawdown  
2- or 3-Stage Pseudo-Static & Simplified Newmark Seismic Analyses.

\*\*\*\*\*

Analysis Date: 11/ 24/ 2021  
Analysis Time:  
Analysis By: GeoMat

Input File Name: C:\Users\Abdullah\OneDrive - Geomat Testing  
Laboratories\GeoMat Reports\ANNUAL REPORTS\2021 REPORTS\21242.South Pasadena Hanscom  
Drive\Geostase\Seismic.gsd

Output File Name: C:\Users\Abdullah\OneDrive - Geomat Testing  
Laboratories\GeoMat Reports\ANNUAL REPORTS\2021 REPORTS\21242.South Pasadena Hanscom  
Drive\Geostase\Seismic.OUT

Unit System: English

PROJECT: APN 5308-031-042. Peterson Avenue

DESCRIPTION: Project No. 21242-01

BOUNDARY DATA

12 Surface Boundaries

17 Total Boundaries

Boundary No.	X - 1 (ft)	Y - 1 (ft)	X - 2 (ft)	Y - 2 (ft)	Soil Type Below Bnd
1	0.000	796.000	8.000	790.000	1
2	8.000	790.000	16.500	790.000	2
3	16.500	790.000	34.000	790.000	3
4	34.000	790.000	44.000	788.000	3
5	44.000	788.000	46.700	786.000	3
6	46.700	786.000	60.000	778.000	3
7	60.000	778.000	74.000	770.000	3
8	74.000	770.000	98.000	756.000	3
9	98.000	756.000	123.500	734.000	3
10	123.500	734.000	151.700	722.000	2
11	151.700	722.000	183.000	710.000	2
12	183.000	710.000	200.000	709.000	2
13	16.500	790.000	66.400	758.300	2
14	66.400	758.000	123.500	734.000	2
15	8.000	790.000	79.700	745.900	1
16	79.700	745.900	117.600	731.900	1
17	117.600	731.900	200.000	701.600	1

User Specified X-Origin = 0.000(ft)

User Specified Y-Origin = 700.000(ft)

MOHR-COULOMB SOIL PARAMETERS

3 Type(s) of Soil Defined

Soil Number	Moist Unit Wt. (pcf)	Saturated Unit Wt. (pcf)	Cohesion Intercept (psf)	Friction Angle (deg)	Pore Pressure Ratio (ru)	Pressure Constant (psf)
1 Bedrock 0 0	120.0	120.0	435.00	37.00	0.000	0.0
2 Soil 0 0	120.0	120.0	274.00	28.00	0.000	0.0
3 Fill 0 0	120.0	120.0	274.00	28.00	0.000	0.0

Drained Shear Strength Reduction Factor applied after first stage = 1.0000

DISTRIBUTED LOAD(S)

2 Load(s) Specified

Load Stress No. (psf)	BND No. Deflection (deg from Vert)	X - 1 (ft)	Y - 1 (ft)	Stress (psf)	X - 2 (ft)	Y - 2 (ft)
1 200.000	2 0.00	8.000	790.000	200.000	16.500	790.000
2 200.000	3 0.00	16.500	790.000	200.000	34.000	790.000

NOTE - Load Stress Varies Linearly Within Specified Range.  
 For Multi-Stage Analysis, Refer to Detailed Output for Distributed Loads Applied to Each Stage.

SEISMIC (EARTHQUAKE) DATA

Specified Peak Ground Acceleration Coefficient (PGA) = 0.000(g)  
 Default Velocity = 0.000(ft) per second  
 Specified Horizontal Earthquake Coefficient (kh) = -.15000(g)  
 Specified Vertical Earthquake Coefficient (kv) = 0.000(g)  
 (NOTE:Input Velocity = 0.0 will result in default Peak Velocity = 2 times(PGA) times 2.5 fps or 0.762 mps)  
 Specified Seismic Pore-Pressure Factor = 0.000  
 Horizontal Seismic Force is Applied at Center of Gravity of Slices

TRIAL FAILURE SURFACE DATA

Circular Trial Failure Surfaces Have Been Generated Using A Random Procedure.

1000 Trial Surfaces Have Been Generated.

1000 Surfaces Generated at Increments of 0.3123(in) Equally Spaced Within the Start Range

Along The Specified Surface Between X = 8.00(ft)  
 and X = 34.00(ft)

Each Surface Enters within a Range Between X = 70.00(ft)  
 and X = 200.00(ft)

Unless XCLUDE Lines Were Specified, The Minimum Elevation To Which A Surface Extends Is Y = 700.00(ft)



Specified Maximum Radius = 10000.000(ft)

3.000(ft) Line Segments Were Used For Each Trial Failure Surface.

Restrictions Have Been Imposed Upon The Angle Of Initiation.  
The Angle Has Been Restricted Between The Angles Of -60.0  
And -40.0 deg.

The Spencer Method Was Selected for FS Analysis.

Selected fx function = Constant (1.0)

SELECTED CONVERGENCE PARAMETERS FOR SPENCER METHOD:

Initial estimate of FS = 1.500

FS tolerance = 0.000001000

Initial estimate of theta(deg) = 15.00

Theta tolerance(radians) = 0.0001000

Minimum theta(deg) = -45.00 ; Maximum theta(deg) = 45.00

Theta convergence Step Factor = 5000.00

Maximum number of iterations = 50

Allowable negative side force = -1000.0(lbs)

Maximum force imbalance = 100.000000(lbs)

Maximum moment imbalance = 100.000000 (ft/lbs)

Selected Lambda Coefficient = 1.00

Specified Tension Crack Water Depth Factor = 0.000

Total Number of Trial Surfaces Attempted = 1000

WARNING! The Factor of Safety Calculation for one or More Trial Surfaces  
Did Not Converge in 50 Iterations.

Number of Trial Surfaces with Non-Converged FS = 457

Number of Trial Surfaces With Valid FS = 543

Percentage of Trial Surfaces With Non-Converged and/or  
Non-Valid FS Solutions of the Total Attempted = 45.7 %

Statistical Data On All Valid FS Values:

FS Max = 2.591 FS Min = 1.112 FS Ave = 1.656

Standard Deviation = 0.228 Coefficient of Variation = 13.78 %

Critical Surface is Sequence Number 405 of Those Analyzed.

\*\*\*\*\*BEGINNING OF DETAILED GEOSTASE OUTPUT FOR CRITICAL SURFACE FROM A SEARCH\*\*\*\*\*

BACK-CALCULATED CIRCULAR SURFACE PARAMETERS:

Circle Center At X = 201.239891(ft) ; Y = 998.482961(ft); and Radius = 273.940270(ft)

Circular Trial Failure Surface Generated With 39 Coordinate Points

Point No.	X-Coord. (ft)	Y-Coord. (ft)
1	23.538	790.000
2	25.831	788.066
3	28.146	786.158
4	30.482	784.275
5	32.838	782.418
6	35.214	780.587
7	37.610	778.782
8	40.026	777.003
9	42.461	775.251
10	44.915	773.525
11	47.388	771.827
12	49.880	770.156
13	52.389	768.512
14	54.916	766.896
15	57.461	765.307
16	60.023	763.747
17	62.603	762.214
18	65.198	760.710
19	67.810	759.234
20	70.438	757.788
21	73.082	756.370
22	75.741	754.981
23	78.415	753.621
24	81.104	752.291
25	83.808	750.990
26	86.525	749.719
27	89.256	748.477
28	92.001	747.266
29	94.758	746.085
30	97.529	744.934
31	100.312	743.813
32	103.107	742.723
33	105.913	741.664
34	108.731	740.635
35	111.561	739.638
36	114.401	738.671

37	117.251	737.736
38	120.112	736.831
39	120.276	736.782

Iter. No.	Theta (deg) (fx=1.0)	FS (Moment)	FS (Force)	Lambda	Delta FS
1	-15.0000	0.601492	1.099175	-0.268	0.4976820E+00
2	-19.9500	0.720606	1.101668	-0.363	0.3810615E+00
3	-36.1201	1.162119	1.108940	-0.730	0.5317885E-01
4	-34.1370	1.200636	1.107897	-0.678	0.9273822E-01
5	-38.7854	1.129019	1.110438	-0.804	0.1858153E-01
6	-39.9490	1.118513	1.111130	-0.838	0.7382786E-02
7	-40.7157	1.112497	1.111601	-0.861	0.8955964E-03
8	-40.8213	1.111716	1.111667	-0.864	0.4935607E-04
9	-40.8275	1.111671	1.111671	-0.864	0.1183174E-06

Factor Of Safety For The Preceding Specified Surface = 1.112  
 Theta (fx = 1.0) = -40.83 Deg      Lambda = -0.864

The Spencer Method Has Been Selected For Analysis.

Selected fx function = Constant (1.0)

SELECTED CONVERGENCE PARAMETERS FOR ANALYSIS METHOD:

Initial estimate of FS = 1.500

FS tolerance = 0.000001000

Initial estimate of theta(deg) = 15.00

Theta tolerance(radians) = 0.0001000

Minimum theta(deg) = -45.00 ; Maximum theta(deg) = 45.00

Theta convergence Step Factor = 5000.00

Maximum number of iterations = 50

Maximum force imbalance = 100.000000(lbs)

Maximum moment imbalance(if Applicable) = 100.000000 (ft/lbs)

Selected Lambda Coefficient = 1.00

Tension Crack Water Force = 0.00(lbs)

Specified Tension Crack Water Depth Factor = 0.000

Depth of Tension Crack (zo) at Side of First Slice = 0.000(ft)

Depth of Water in Tension Crack = 0.000(ft)

Theoretical Tension Crack Depth = 7.600(ft)

NOTE: In Table 1 following, when a tension crack with water is present on the first slice (right facing slope) or on the last slice (left facing slope), the "side force" in the tension crack is set equal to the water pressure resultant.

\*\*\* Table 1 - Line of Thrust(if applicable) and Slice Force Data

\*\*\*

Vert. Shear Force(lbs)	Slice No.	X Coord.	Y Coord.	h/H	Side Force (lbs)	fx	Force Angle (Deg)
0.0	1	23.54	790.00	0.000	0.00	1.000	0.00
325.2	2	25.83	789.03	0.500	-497.44	1.000	-40.83
505.2	3	28.15	786.41	0.065	-772.70	1.000	-40.83
545.8	4	30.48	783.62	0.000-	-834.85	1.000	-40.83
453.3	5	32.84	779.64	0.000-	-693.36	1.000	-40.83
363.4	6	34.00	776.33	0.000-	-555.88	1.000	-40.83
276.7	7	35.21	770.98	0.000-	-423.20	1.000	-40.83
44.8	8	37.61	678.32	0.000-	-68.56	1.000	-40.83
-268.1	9	40.03	802.37	1.000+	410.12	1.000	-40.83
-656.0	10	42.46	789.83	1.000+	1003.35	1.000	-40.83
-931.9	11	44.00	786.54	0.894	1425.47	1.000	-40.83
-1105.8	12	44.92	785.04	0.835	1691.44	1.000	-40.83
-1422.7	13	46.70	782.81	0.767	2176.16	1.000	-40.83
-1544.6	14	47.39	782.05	0.743	2362.51	1.000	-40.83
-1966.7	15	49.88	779.64	0.681	3008.21	1.000	-40.83
-2374.4	16	52.39	777.50	0.639	3631.72	1.000	-40.83

-2763.5	17	54.92	775.51	0.608	4226.95	1.000	-40.83
-3130.3	18	57.46	773.61	0.584	4787.99	1.000	-40.83
-3467.9	19	60.00	771.79	0.564	5304.39	1.000	-40.83
-3471.1	20	60.02	771.77	0.564	5309.17	1.000	-40.83
-3784.6	21	62.60	769.99	0.544	5788.69	1.000	-40.83
-4069.5	22	65.20	768.24	0.526	6224.58	1.000	-40.83
-4322.6	23	67.81	766.53	0.510	6611.60	1.000	-40.83
-4540.4	24	70.44	764.85	0.495	6944.81	1.000	-40.83
-4720.0	25	73.08	763.19	0.482	7219.58	1.000	-40.83
-4768.6	26	74.00	762.63	0.477	7293.89	1.000	-40.83
-4858.3	27	75.74	761.55	0.469	7431.11	1.000	-40.83
-4951.7	28	78.42	759.94	0.458	7573.90	1.000	-40.83
-4997.8	29	81.10	758.35	0.446	7644.49	1.000	-40.83
-4994.9	30	83.81	756.77	0.435	7640.04	1.000	-40.83
-4941.4	31	86.52	755.22	0.424	7558.17	1.000	-40.83
-4836.0	32	89.26	753.69	0.413	7396.99	1.000	-40.83
-4677.9	33	92.00	752.18	0.401	7155.14	1.000	-40.83
-4466.5	34	94.76	750.69	0.390	6831.82	1.000	-40.83
-4201.8	35	97.53	749.24	0.379	6426.83	1.000	-40.83
-4148.9	36	98.00	749.00	0.378	6345.92	1.000	-40.83
-3876.8	37	100.31	747.79	0.390	5929.76	1.000	-40.83
-3482.2	38	103.11	746.32	0.405	5326.26	1.000	-40.83
-3023.8	39	105.91	744.82	0.420	4625.06	1.000	-40.83
-2508.2	40	108.73	743.30	0.436	3836.47	1.000	-40.83
-1943.1	41	111.56	741.74	0.451	2972.05	1.000	-40.83

-1336.7	42	114.40	740.16	0.468	2044.62	1.000	-40.83
-698.5	43	117.25	738.55	0.489	1068.32	1.000	-40.83
-38.4	44	120.11	736.96	1.000+	58.74	1.000	-40.83

NOTE: A value of 0.000- for h/H indicates that the line of thrust is at or below the lower boundary of the sliding mass. A value of 1.000+ for h/H indicates that the line of thrust is at or above the upper boundary of the sliding mass.

\*\*\*Table 2 - Geometry Data on the 44 Slices\*\*\*

Slice Length No. (ft)	Width (ft)	Height (ft)	X-Cntr (ft)	Y-Cntr-Base (ft)	Y-Cntr-Top (ft)	Alpha (deg)	Beta (deg)	Base
1 3.00	2.29	0.97	24.68	789.03	790.00	-40.13	0.00	
2 3.00	2.31	2.89	26.99	787.11	790.00	-39.50	0.00	
3 3.00	2.34	4.78	29.31	785.22	790.00	-38.87	0.00	
4 3.00	2.36	6.65	31.66	783.35	790.00	-38.25	0.00	
5 1.47	1.16	8.03	33.42	781.97	790.00	-37.62	0.00	
6 1.53	1.21	8.82	34.61	781.05	789.88	-37.62	-11.31	
7 3.00	2.40	9.83	36.41	779.68	789.52	-36.99	-11.31	
8 3.00	2.42	11.14	38.82	777.89	789.04	-36.36	-11.31	
9 3.00	2.44	12.42	41.24	776.13	788.55	-35.74	-11.31	
10 1.88	1.54	13.44	43.23	774.71	788.15	-35.11	-11.31	
11 1.12	0.92	13.81	44.46	773.85	787.66	-35.11	-36.53	
12 2.17	1.78	13.75	45.81	772.91	786.66	-34.48	-36.53	
13 0.83	0.69	13.73	47.04	772.06	785.79	-34.48	-31.03	
14 3.00	2.49	13.85	48.63	770.99	784.84	-33.85	-31.03	

15	2.51	14.00	51.13	769.33	783.33	-33.23	-31.03
3.00							
16	2.53	14.11	53.65	767.70	781.82	-32.60	-31.03
3.00							
17	2.54	14.19	56.19	766.10	780.29	-31.97	-31.03
3.00							
18	2.54	14.23	58.73	764.53	778.76	-31.34	-31.03
2.97							
19	0.02	14.24	60.01	763.75	777.99	-31.34	-29.74
0.03							
20	2.58	14.27	61.31	762.98	777.25	-30.72	-29.74
3.00							
21	2.60	14.31	63.90	761.46	775.77	-30.09	-29.74
3.00							
22	2.61	14.31	66.50	759.97	774.28	-29.46	-29.74
3.00							
23	2.63	14.28	69.12	758.51	772.79	-28.83	-29.74
3.00							
24	2.64	14.20	71.76	757.08	771.28	-28.21	-29.74
3.00							
25	0.92	14.13	73.54	756.13	770.26	-27.58	-29.74
1.04							
26	1.74	14.06	74.87	755.44	769.49	-27.58	-30.26
1.96							
27	2.67	13.90	77.08	754.30	768.20	-26.95	-30.26
3.00							
28	2.69	13.68	79.76	752.96	766.64	-26.32	-30.26
3.00							
29	2.70	13.43	82.46	751.64	765.07	-25.70	-30.26
3.00							
30	2.72	13.13	85.17	750.35	763.49	-25.07	-30.26
3.00							
31	2.73	12.80	87.89	749.10	761.90	-24.44	-30.26
3.00							
32	2.74	12.43	90.63	747.87	760.30	-23.82	-30.26
3.00							
33	2.76	12.02	93.38	746.68	758.70	-23.19	-30.26
3.00							
34	2.77	11.57	96.14	745.51	757.08	-22.56	-30.26
3.00							
35	0.47	11.30	97.76	744.84	756.14	-21.93	-30.26
0.51							
36	2.31	10.72	99.16	744.28	755.00	-21.93	-40.79
2.49							
37	2.79	9.53	101.71	743.27	752.80	-21.31	-40.79
3.00							
38	2.81	8.19	104.51	742.19	750.38	-20.68	-40.79
3.00							
39	2.82	6.81	107.32	741.15	747.96	-20.05	-40.79
3.00							

40	2.83	5.38	110.15	740.14	745.52	-19.42	-40.79
3.00							
41	2.84	3.92	112.98	739.15	743.08	-18.80	-40.79
3.00							
42	2.85	2.42	115.83	738.20	740.62	-18.17	-40.79
3.00							
43	2.86	0.87	118.68	737.28	738.16	-17.54	-40.79
3.00							
44	0.16	0.05	120.19	736.81	736.85	-16.91	-40.79
0.17							

\*\*\*Table 2A - Coordinates of Slice Points Defining the Slip Surface\*\*\*

Point No.	X-Pt (ft)	Y-Pt (ft)
1	23.537538	790.000000
2	25.831317	788.066461
3	28.146134	786.158156
4	30.481710	784.275317
5	32.837764	782.418167
6	34.000000	781.522501
7	35.214016	780.586930
8	37.610179	778.781826
9	40.025967	777.003070
10	42.461089	775.250877
11	44.000000	774.168932
12	44.915253	773.525456
13	46.700000	772.299659
14	47.388166	771.827015
15	49.879530	770.155756
16	52.389047	768.511881
17	54.916415	766.895587
18	57.461333	765.307067
19	60.000000	763.760821
20	60.023494	763.746512
21	62.602591	762.214109
22	65.198315	760.710042
23	67.810354	759.234492
24	70.438396	757.787634
25	73.082125	756.369644
26	74.000000	755.890201
27	75.741224	754.980690
28	78.415374	753.620940
29	81.104255	752.290556
30	83.807543	750.989698
31	86.524916	749.718523
32	89.256046	748.477181



33	92.000606	747.265824
34	94.758268	746.084595
35	97.528700	744.933636
36	98.000000	744.743862
37	100.311570	743.813086
38	103.106545	742.723078
39	105.913289	741.663744
40	108.731465	740.635210
41	111.560736	739.637601
42	114.400763	738.671034
43	117.251204	737.735628
44	120.111718	736.831493
45	120.275912	736.781566

\*\*\*Table 3 - Force and Pore Pressure Data On The 44 Slices (Excluding Reinforcement)\*\*\*

Distributed Slice No. (lbs)	Weight (lbs)	Ubeta	Ubeta	Ualpha	Pore Pressure (psf)	Earthquake Force		Load
		Force Top (lbs)	Stress Top (psf)	Force Bot (lbs)		Hor (lbs)	Ver (lbs)	
1	266.1	0.0	0.0	0.0	0.0	-39.9	0.0	
458.76								
2	802.1	0.0	0.0	0.0	0.0	-120.3	0.0	
462.96								
3	1340.6	0.0	0.0	0.0	0.0	-201.1	0.0	
467.12								
4	1881.1	0.0	0.0	0.0	0.0	-282.2	0.0	
471.21								
5	1119.9	0.0	0.0	0.0	0.0	-168.0	0.0	
232.45								
6	1285.5	0.0	0.0	0.0	0.0	-192.8	0.0	
0.00								
7	2827.4	0.0	0.0	0.0	0.0	-424.1	0.0	
0.00								
8	3230.6	0.0	0.0	0.0	0.0	-484.6	0.0	
0.00								
9	3630.6	0.0	0.0	0.0	0.0	-544.6	0.0	
0.00								
10	2482.7	0.0	0.0	0.0	0.0	-372.4	0.0	
0.00								
11	1517.2	0.0	0.0	0.0	0.0	-227.6	0.0	
0.00								
12	2944.5	0.0	0.0	0.0	0.0	-441.7	0.0	
0.00								
13	1133.8	0.0	0.0	0.0	0.0	-170.1	0.0	

0.00							
14	4139.3	0.0	0.0	0.0	0.0	-620.9	0.0
0.00							
15	4215.7	0.0	0.0	0.0	0.0	-632.4	0.0
0.00							
16	4280.6	0.0	0.0	0.0	0.0	-642.1	0.0
0.00							
17	4333.8	0.0	0.0	0.0	0.0	-650.1	0.0
0.00							
18	4334.9	0.0	0.0	0.0	0.0	-650.2	0.0
0.00							
19	40.1	0.0	0.0	0.0	0.0	-6.0	0.0
0.00							
20	4416.3	0.0	0.0	0.0	0.0	-662.4	0.0
0.00							
21	4457.1	0.0	0.0	0.0	0.0	-668.6	0.0
0.00							
22	4485.7	0.0	0.0	0.0	0.0	-672.9	0.0
0.00							
23	4501.8	0.0	0.0	0.0	0.0	-675.3	0.0
0.00							
24	4505.3	0.0	0.0	0.0	0.0	-675.8	0.0
0.00							
25	1556.6	0.0	0.0	0.0	0.0	-233.5	0.0
0.00							
26	2937.1	0.0	0.0	0.0	0.0	-440.6	0.0
0.00							
27	4461.6	0.0	0.0	0.0	0.0	-669.2	0.0
0.00							
28	4415.5	0.0	0.0	0.0	0.0	-662.3	0.0
0.00							
29	4355.7	0.0	0.0	0.0	0.0	-653.4	0.0
0.00							
30	4282.2	0.0	0.0	0.0	0.0	-642.3	0.0
0.00							
31	4194.8	0.0	0.0	0.0	0.0	-629.2	0.0
0.00							
32	4093.3	0.0	0.0	0.0	0.0	-614.0	0.0
0.00							
33	3977.7	0.0	0.0	0.0	0.0	-596.7	0.0
0.00							
34	3847.7	0.0	0.0	0.0	0.0	-577.2	0.0
0.00							
35	639.0	0.0	0.0	0.0	0.0	-95.9	0.0
0.00							
36	2974.8	0.0	0.0	0.0	0.0	-446.2	0.0
0.00							
37	3197.0	0.0	0.0	0.0	0.0	-479.5	0.0
0.00							
38	2758.5	0.0	0.0	0.0	0.0	-413.8	0.0

0.00							
39	2302.2	0.0	0.0	0.0	0.0	-345.3	0.0
0.00							
40	1828.1	0.0	0.0	0.0	0.0	-274.2	0.0
0.00							
41	1336.3	0.0	0.0	0.0	0.0	-200.4	0.0
0.00							
42	826.9	0.0	0.0	0.0	0.0	-124.0	0.0
0.00							
43	299.9	0.0	0.0	0.0	0.0	-45.0	0.0
0.00							
44	0.9	0.0	0.0	0.0	0.0	-0.1	0.0
0.00							

\*\*\*Table 3B - Center of Pressure of Distributed Loads On the 44 Slices\*\*\*  
 Only Applicable Slices Listed

Slice No.	X-Dload (ft)	Y-Dload (ft)	Dist-Load (lbs)	Dload-Moment (ft/lbs)
1	24.68	790.00	0.458756E+03	0.000000E+00
2	26.99	790.00	0.462963E+03	0.000000E+00
3	29.31	790.00	0.467115E+03	0.000000E+00
4	31.66	790.00	0.471211E+03	0.000000E+00
5	33.42	790.00	0.232447E+03	0.000000E+00
6	33.96	790.00	0.151975E+02	0.000000E+00
7	33.95	790.00	0.193802E+02	0.000000E+00
8	33.97	790.00	0.111624E+02	0.000000E+00
9	33.91	790.00	0.357776E+02	0.000000E+00
10	33.89	790.00	0.440755E+02	0.000000E+00
11	33.90	790.00	0.394327E+02	0.000000E+00
12	33.79	790.00	0.840307E+02	0.000000E+00
13	33.66	790.00	0.134449E+03	0.000000E+00
14	33.80	790.00	0.803190E+02	0.000000E+00
15	33.72	790.00	0.111597E+03	0.000000E+00
16	33.86	790.00	0.568128E+02	0.000000E+00
17	33.84	790.00	0.640994E+02	0.000000E+00

TOTAL WEIGHT OF SLIDING MASS = 122458.63(lbs)

EFFECTIVE WEIGHT OF SLIDING MASS = 122458.63(lbs)

TOTAL AREA OF SLIDING MASS = 1020.49(ft<sup>2</sup>)

\*\*\*TABLE 4 - SOIL STRENGTH & SOIL OPTIONS DATA ON THE 44 SLICES\*\*\*

Slice No.	Soil Type	Cohesion (psf)	Phi(Deg)	Options
1	3	274.00	28.00	

2	3	274.00	28.00
3	3	274.00	28.00
4	3	274.00	28.00
5	3	274.00	28.00
6	3	274.00	28.00
7	3	274.00	28.00
8	3	274.00	28.00
9	3	274.00	28.00
10	3	274.00	28.00
11	3	274.00	28.00
12	3	274.00	28.00
13	3	274.00	28.00
14	3	274.00	28.00
15	3	274.00	28.00
16	3	274.00	28.00
17	3	274.00	28.00
18	3	274.00	28.00
19	3	274.00	28.00
20	3	274.00	28.00
21	3	274.00	28.00
22	3	274.00	28.00
23	3	274.00	28.00
24	3	274.00	28.00
25	3	274.00	28.00
26	3	274.00	28.00
27	3	274.00	28.00
28	3	274.00	28.00
29	3	274.00	28.00
30	3	274.00	28.00
31	3	274.00	28.00
32	3	274.00	28.00
33	3	274.00	28.00
34	3	274.00	28.00
35	3	274.00	28.00
36	3	274.00	28.00
37	3	274.00	28.00
38	3	274.00	28.00
39	3	274.00	28.00
40	3	274.00	28.00
41	3	274.00	28.00
42	3	274.00	28.00
43	3	274.00	28.00
44	3	274.00	28.00

SOIL OPTIONS:

- A = ANISOTROPIC SHEAR STRENGTH
- C = CURVED STRENGTH ENVELOPE (TANGENT PHI & C)
- F = FIBER-REINFORCED SOIL (FRS)
- M = INDEPENDENT MULTI-STAGE SHEAR STRENGTH
- N = NONLINEAR UNDRAINED SHEAR STRENGTH

R = RAPID DRAWDOWN OR RAPID LOADING (SEISMIC) SHEAR STRENGTH  
 NOTE: Phi and C in Table 4 are modified values based on specified  
 Soil Options (if any).

\*\*\*TABLE 5 - Total Base Stress Data on the 44 Slices\*\*\*

Slice No.	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Total Normal Stress (psf)	Total Vert. Stress (psf)	Total Stress
1 0.564	-40.13	24.68	3.00	178.19	316.01	
2 0.553	-39.50	26.99	3.00	302.00	546.52	
3 0.553	-38.87	29.31	3.00	427.75	773.99	
4 0.556	-38.25	31.66	3.00	555.44	998.39	
5 0.563	-37.62	33.42	1.47	654.89	1163.56	
6 0.550	-37.62	34.61	1.53	582.69	1058.87	
7 0.559	-36.99	36.41	3.00	659.81	1179.98	
8 0.568	-36.36	38.82	3.00	758.96	1337.27	
9 0.576	-35.74	41.24	3.00	858.75	1490.92	
10 0.585	-35.11	43.23	1.88	943.41	1613.28	
11 0.584	-35.11	44.46	1.12	968.65	1657.66	
12 0.594	-34.48	45.81	2.17	980.78	1649.82	
13 0.595	-34.48	47.04	0.83	979.48	1647.56	
14 0.605	-33.85	48.63	3.00	1004.40	1661.45	
15 0.615	-33.23	51.13	3.00	1032.49	1679.87	
16 0.625	-32.60	53.65	3.00	1058.37	1693.70	
17 0.635	-31.97	56.19	3.00	1081.94	1702.93	
18 0.646	-31.34	58.73	2.97	1103.09	1707.55	

19	-31.34	60.01	0.03	1103.83	1708.75
0.646					
20	-30.72	61.31	3.00	1124.70	1712.33
0.657					
21	-30.09	63.90	3.00	1146.69	1717.09
0.668					
22	-29.46	66.50	3.00	1166.13	1717.32
0.679					
23	-28.83	69.12	3.00	1182.92	1713.00
0.691					
24	-28.21	71.76	3.00	1196.94	1704.15
0.702					
25	-27.58	73.54	1.04	1211.52	1695.88
0.714					
26	-27.58	74.87	1.96	1205.39	1686.80
0.715					
27	-26.95	77.08	3.00	1213.14	1668.42
0.727					
28	-26.32	79.76	3.00	1215.39	1642.12
0.740					
29	-25.70	82.46	3.00	1214.26	1611.27
0.754					
30	-25.07	85.17	3.00	1209.62	1575.87
0.768					
31	-24.44	87.89	3.00	1201.32	1535.92
0.782					
32	-23.82	90.63	3.00	1189.21	1491.44
0.797					
33	-23.19	93.38	3.00	1173.14	1442.41
0.813					
34	-22.56	96.14	3.00	1152.94	1388.86
0.830					
35	-21.93	97.76	0.51	1147.79	1355.85
0.847					
36	-21.93	99.16	2.49	1094.58	1286.93
0.851					
37	-21.31	101.71	3.00	1001.98	1143.83
0.876					
38	-20.68	104.51	3.00	892.09	982.82
0.908					
39	-20.05	107.32	3.00	774.68	816.92
0.948					
40	-19.42	110.15	3.00	649.46	646.15
1.005					
41	-18.80	112.98	3.00	516.13	470.53
1.097					
42	-18.17	115.83	3.00	374.37	290.09
1.291					
43	-17.54	118.68	3.00	223.84	104.83
2.135					

44      -16.91      120.19      0.17      143.54      5.50  
 26.079

\*\*\*TABLE 5A - Total Base Force Data on the 44 Slices\*\*\*

Slice No.	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Total Normal Force (lbs)	Total Vert. Force (lbs)	Total Force
1	-40.13	24.68	3.00	534.56	724.86	
0.737						
2	-39.50	26.99	3.00	905.99	1265.10	
0.716						
3	-38.87	29.31	3.00	1283.26	1807.72	
0.710						
4	-38.25	31.66	3.00	1666.31	2352.26	
0.708						
5	-37.62	33.42	1.47	960.93	1352.33	
0.711						
6	-37.62	34.61	1.53	893.08	1285.48	
0.695						
7	-36.99	36.41	3.00	1979.42	2827.43	
0.700						
8	-36.36	38.82	3.00	2276.89	3230.57	
0.705						
9	-35.74	41.24	3.00	2576.25	3630.57	
0.710						
10	-35.11	43.23	1.88	1774.74	2482.69	
0.715						
11	-35.11	44.46	1.12	1083.75	1517.18	
0.714						
12	-34.48	45.81	2.17	2123.54	2944.50	
0.721						
13	-34.48	47.04	0.83	817.71	1133.80	
0.721						
14	-33.85	48.63	3.00	3013.20	4139.27	
0.728						
15	-33.23	51.13	3.00	3097.46	4215.67	
0.735						
16	-32.60	53.65	3.00	3175.10	4280.61	
0.742						
17	-31.97	56.19	3.00	3245.82	4333.82	
0.749						
18	-31.34	58.73	2.97	3278.91	4334.90	
0.756						
19	-31.34	60.01	0.03	30.36	40.14	
0.756						

20	-30.72	61.31	3.00	3374.10	4416.25
0.764					
21	-30.09	63.90	3.00	3440.06	4457.10
0.772					
22	-29.46	66.50	3.00	3498.40	4485.70
0.780					
23	-28.83	69.12	3.00	3548.76	4501.84
0.788					
24	-28.21	71.76	3.00	3590.81	4505.30
0.797					
25	-27.58	73.54	1.04	1254.59	1556.61
0.806					
26	-27.58	74.87	1.96	2367.93	2937.10
0.806					
27	-26.95	77.08	3.00	3639.43	4461.61
0.816					
28	-26.32	79.76	3.00	3646.17	4415.47
0.826					
29	-25.70	82.46	3.00	3642.79	4355.73
0.836					
30	-25.07	85.17	3.00	3628.86	4282.23
0.847					
31	-24.44	87.89	3.00	3603.96	4194.81
0.859					
32	-23.82	90.63	3.00	3567.64	4093.34
0.872					
33	-23.19	93.38	3.00	3519.42	3977.69
0.885					
34	-22.56	96.14	3.00	3458.82	3847.75
0.899					
35	-21.93	97.76	0.51	583.16	639.01
0.913					
36	-21.93	99.16	2.49	2727.61	2974.82
0.917					
37	-21.31	101.71	3.00	3005.93	3196.99
0.940					
38	-20.68	104.51	3.00	2676.27	2758.53
0.970					
39	-20.05	107.32	3.00	2324.04	2302.23
1.009					
40	-19.42	110.15	3.00	1948.39	1828.14
1.066					
41	-18.80	112.98	3.00	1548.39	1336.33
1.159					
42	-18.17	115.83	3.00	1123.10	826.88
1.358					
43	-17.54	118.68	3.00	671.51	299.88
2.239					
44	-16.91	120.19	0.17	24.63	0.90
27.258					



\*\*\*TABLE 6 - Effective and Base Shear Stress Data on the 44 Slices\*\*\*

Slice Mobilized No. Stress *	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Effective Normal Stress (psf)	Available Shear Strength (psf)	Shear (psf)
1 331.70	-40.13	24.68	3.00	178.19	368.74	
2 390.92	-39.50	26.99	3.00	302.00	434.57	
3 451.07	-38.87	29.31	3.00	427.75	501.44	
4 512.14	-38.25	31.66	3.00	555.44	569.33	
5 559.71	-37.62	33.42	1.47	654.89	622.21	
6 525.18	-37.62	34.61	1.53	582.69	583.82	
7 562.06	-36.99	36.41	3.00	659.81	624.83	
8 609.49	-36.36	38.82	3.00	758.96	677.55	
9 657.21	-35.74	41.24	3.00	858.75	730.61	
10 697.71	-35.11	43.23	1.88	943.41	775.62	
11 709.78	-35.11	44.46	1.12	968.65	789.04	
12 715.58	-34.48	45.81	2.17	980.78	795.49	
13 714.96	-34.48	47.04	0.83	979.48	794.80	
14 726.88	-33.85	48.63	3.00	1004.40	808.05	
15 740.31	-33.23	51.13	3.00	1032.49	822.98	
16 752.69	-32.60	53.65	3.00	1058.37	836.74	
17 763.96	-31.97	56.19	3.00	1081.94	849.28	
18 774.08	-31.34	58.73	2.97	1103.09	860.52	
19 774.44	-31.34	60.01	0.03	1103.83	860.92	
20 784.42	-30.72	61.31	3.00	1124.70	872.01	

21	-30.09	63.90	3.00	1146.69	883.70
794.93					
22	-29.46	66.50	3.00	1166.13	894.04
804.23					
23	-28.83	69.12	3.00	1182.92	902.97
812.26					
24	-28.21	71.76	3.00	1196.94	910.42
818.97					
25	-27.58	73.54	1.04	1211.52	918.18
825.94					
26	-27.58	74.87	1.96	1205.39	914.92
823.01					
27	-26.95	77.08	3.00	1213.14	919.04
826.72					
28	-26.32	79.76	3.00	1215.39	920.23
827.79					
29	-25.70	82.46	3.00	1214.26	919.63
827.25					
30	-25.07	85.17	3.00	1209.62	917.17
825.03					
31	-24.44	87.89	3.00	1201.32	912.75
821.06					
32	-23.82	90.63	3.00	1189.21	906.32
815.27					
33	-23.19	93.38	3.00	1173.14	897.77
807.59					
34	-22.56	96.14	3.00	1152.94	887.03
797.92					
35	-21.93	97.76	0.51	1147.79	884.29
795.46					
36	-21.93	99.16	2.49	1094.58	856.00
770.01					
37	-21.31	101.71	3.00	1001.98	806.76
725.72					
38	-20.68	104.51	3.00	892.09	748.33
673.16					
39	-20.05	107.32	3.00	774.68	685.90
617.00					
40	-19.42	110.15	3.00	649.46	619.33
557.11					
41	-18.80	112.98	3.00	516.13	548.43
493.34					
42	-18.17	115.83	3.00	374.37	473.05
425.53					
43	-17.54	118.68	3.00	223.84	393.02
353.54					
44	-16.91	120.19	0.17	143.54	350.32
315.13					

\*\*\*TABLE 6A - Effective and Base Shear Force Data on the 44 Slices\*\*\*

Slice Mobilized Force No. * (lbs)	Alpha (deg)	X-Coord. Slice Cntr (ft)	Base Leng. (ft)	Effective Normal Force (lbs)	Available Shear Force (lbs)	Shear
1 995.11	-40.13	24.68	3.00	534.56	1106.23	
2 1172.76	-39.50	26.99	3.00	905.99	1303.72	
3 1353.21	-38.87	29.31	3.00	1283.26	1504.32	
4 1536.42	-38.25	31.66	3.00	1666.31	1707.99	
5 821.27	-37.62	33.42	1.47	960.93	912.98	
6 804.93	-37.62	34.61	1.53	893.08	894.82	
7 1686.18	-36.99	36.41	3.00	1979.42	1874.48	
8 1828.46	-36.36	38.82	3.00	2276.89	2032.64	
9 1971.64	-35.74	41.24	3.00	2576.25	2191.82	
10 1312.52	-35.11	43.23	1.88	1774.74	1459.09	
11 794.11	-35.11	44.46	1.12	1083.75	882.79	
12 1549.34	-34.48	45.81	2.17	2123.54	1722.36	
13 596.88	-34.48	47.04	0.83	817.71	663.53	
14 2180.63	-33.85	48.63	3.00	3013.20	2424.15	
15 2220.94	-33.23	51.13	3.00	3097.46	2468.95	
16 2258.07	-32.60	53.65	3.00	3175.10	2510.23	
17 2291.89	-31.97	56.19	3.00	3245.82	2547.83	
18 2300.94	-31.34	58.73	2.97	3278.91	2557.89	
19 21.30	-31.34	60.01	0.03	30.36	23.68	
20 2353.25	-30.72	61.31	3.00	3374.10	2616.04	
21	-30.09	63.90	3.00	3440.06	2651.11	

2384.80					
22	-29.46	66.50	3.00	3498.40	2682.13
2412.70					
23	-28.83	69.12	3.00	3548.76	2708.91
2436.79					
24	-28.21	71.76	3.00	3590.81	2731.27
2456.90					
25	-27.58	73.54	1.04	1254.59	950.82
855.30					
26	-27.58	74.87	1.96	2367.93	1797.31
1616.76					
27	-26.95	77.08	3.00	3639.43	2757.12
2480.16					
28	-26.32	79.76	3.00	3646.17	2760.70
2483.38					
29	-25.70	82.46	3.00	3642.79	2758.90
2481.76					
30	-25.07	85.17	3.00	3628.86	2751.50
2475.10					
31	-24.44	87.89	3.00	3603.96	2738.26
2463.19					
32	-23.82	90.63	3.00	3567.64	2718.95
2445.82					
33	-23.19	93.38	3.00	3519.42	2693.31
2422.76					
34	-22.56	96.14	3.00	3458.82	2661.09
2393.77					
35	-21.93	97.76	0.51	583.16	449.28
404.15					
36	-21.93	99.16	2.49	2727.61	2133.08
1918.81					
37	-21.31	101.71	3.00	3005.93	2420.28
2177.16					
38	-20.68	104.51	3.00	2676.27	2245.00
2019.48					
39	-20.05	107.32	3.00	2324.04	2057.71
1851.01					
40	-19.42	110.15	3.00	1948.39	1857.98
1671.34					
41	-18.80	112.98	3.00	1548.39	1645.30
1480.02					
42	-18.17	115.83	3.00	1123.10	1419.16
1276.60					
43	-17.54	118.68	3.00	671.51	1179.05
1060.61					
44	-16.91	120.19	0.17	24.63	60.12
54.08					

Average Effective Normal Stress = 909.6931(psf)  
Average Available Shear Strength = 757.6924(psf)

Total Length of Failure Surface = 111.1716(ft)

SUM OF MOMENTS =  $-0.520267E+00$  (ft/lbs); Imbalance (Fraction of Total Weight) =  $-0.4248515E-05$

SUM OF FORCES =  $-.486491E-03$  (lbs); Imbalance (Fraction of Total Weight) =  $-0.3972698E-08$

Sum of Available Shear Forces = 84233.89(lbs)

Sum of Mobilized Shear Forces = 75772.33(lbs)

FS Balance Check: FS = 1.111671

\*\*\*\* END OF GEOSTASE OUTPUT \*\*\*\*

# APPENDIX F

## GENERAL EARTHWORK AND GRADING SPECIFICATIONS



**GeoMat Testing Laboratories, Inc.**  
Geotechnical Engineering  
Engineering Geology  
Material Testing

**Inland Empire**  
9980 Indiana Ave, Suite 14  
Riverside, California 92503  
Office (951) 688-5400

**Los Angeles**  
5714 W. 96<sup>th</sup> Street  
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## **GENERAL**

The guidelines contained herein and the standard details attached hereto represent this firm's standard recommendation for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications.

All plates attached hereto shall be considered as part of these guidelines.

The Contractor should not vary from these guidelines without prior recommendation by the Geotechnical Consultant and the approval of the Client or his authorized representative. Recommendation by the Geotechnical Consultant and/or Client should not be considered to preclude requirements for the approval by the controlling agency prior to the execution of any changes.

These Standard Grading Guidelines and Standard Details may be modified and/or superseded by recommendations contained in the text of the preliminary Geotechnical Report and/or subsequent reports.

If disputes arise out of the interpretation of these grading guidelines or standard details, the Geotechnical Consultant shall provide the governing interpretation.

## **DEFINITION OF TERMS**

### **ALLUVIUM**

*Unconsolidated soil deposits resulting from flow of water, including sediments deposited in river beds, canyons, flood plains, lakes, fans and estuaries.*

**AS-GRADED (AS-BUILT)**: The surface and subsurface conditions at completion of grading.

**BACKCUT**: A temporary construction slope at the rear of earth retaining structures such as buttresses, shear keys, stabilization fills or retaining walls.

**BACKDRAIN**: Generally a pipe and gravel or similar drainage system placed behind earth retaining structures such as buttresses, stabilization fills, and retaining walls.

**BEDROCK**: Relatively undisturbed formational rock, more or less solid, either at the surface or beneath superficial deposits of soil.

**BENCH**: A relatively level step and near vertical rise excavated into sloping ground on which fill is to be placed.

**BORROW (Import)**: Any fill material hauled to the project site from off-site areas.

**BUTTRESS FILL**: A fill mass, the configuration of which is designed by engineering calculations to retain slope conditions containing adverse geologic features. A buttress is generally specified by minimum key width and depth and by maximum backcut angle. A buttress normally contains a back-drainage system.

**CIVIL ENGINEER**: The Registered Civil Engineer or consulting firm responsible for preparation of the grading plans, surveying and verifying as-graded topographic conditions.

**CLIENT**: The Developer or his authorized representative who is chiefly in charge of the project. He shall have the responsibility of reviewing the findings and recommendations made by the Geotechnical Consultant and shall authorize the Contractor and/or other consultants to perform work and/or provide services.

**COLLUVIUM**: Generally loose deposits usually found near the base of slopes and brought there chiefly by gravity through slow continuous downhill creep (also see Slope Wash).

**COMPACTION** : Densification of man-placed fill by mechanical means.

**CONTRACTOR** – A person or company under contract or otherwise retained by the Client to perform demolition, grading and other site improvements.

**DEBRIS**: All products of clearing, grubbing, demolition, and contaminated soil materials unsuitable for reuse as compacted fill, and/or any other material so designated by the Geotechnical Consultant.

**ENGINEERING GEOLOGIST**: A Geologist holding a valid certificate of registration in the specialty of Engineering Geology.

**ENGINEERED FILL**: A fill of which the Geotechnical Consultant or his representative, during grading, has made sufficient tests to enable him to conclude that the fill has been placed in substantial compliance with the recommendations of the Geotechnical Consultant and the governing agency requirements.

**EROSION**: The wearing away of ground surface as a result of the movement of wind, water, and/or ice.

**EXCAVATION**: The mechanical removal of earth materials.

**EXISTING GRADE**: The ground surface configuration prior to grading.

**FILL**: Any deposits of soil, rock, soil-rock blends or other similar materials placed by man.

**FINISH GRADE**: The ground surface configuration at which time the surface elevations conform to the approved plan.



**GEOFABRIC:** Any engineering textile utilized in geotechnical applications including subgrade stabilization and filtering.

**GEOLOGIST:** A representative of the Geotechnical Consultant educated and trained in the field of geology.

**GEOTECHNICAL CONSULTANT:** The Geotechnical Engineering and Engineering Geology consulting firm retained to provide technical services for the project. For the purpose of these specifications, observations by the Geotechnical Consultant include observations by the Soil Engineer, Geotechnical Engineer, Engineering Geologist and those performed by persons employed by and responsible to the Geotechnical Consultants.

**GEOTECHNICAL ENGINEER:** A licensed Geotechnical Engineer or Civil Engineer who applies scientific methods, engineering principles and professional experience to the acquisition, interpretation and use of knowledge of materials of the earth's crust for the evaluation of engineering problems. Geotechnical Engineering encompasses many of the engineering aspects of soil mechanics, rock mechanics, geology, geophysics, hydrology and related sciences.

**GRADING:** Any operation consisting of excavation, filling or combinations thereof and associated operations.

**LANDSIDE DEBRIS:** Material, generally porous and of low density, produced from instability of natural or man-made slopes.

**MAXIMUM DENSITY:** Standard laboratory test for maximum dry unit weight. Unless otherwise specified, the maximum dry unit weight shall be determined in accordance with ASTM Method of Test D 1557-91.

**OPTIMUM MOISTURE –** Soil moisture content at the test maximum density.

**RELATIVE COMPACTION:** The degree of compaction (expressed as a percentage) of dry unit weight of a material as compared to the maximum dry unit weight of the material.

**ROUGH GRADE:** The ground surface configuration at which time the surface elevations approximately conform to the approved plan.

**SITE:** The particular parcel of land where grading is being performed.

**SHEAR KEY:** Similar to buttress, however, it is generally constructed by excavating a slot within a natural slope, in order to stabilize the upper portion of the slope without grading encroaching into the lower portion of the slope.

**SLOPE:** An inclined ground surface, the steepness of which is generally specified as a ration of horizontal:vertical (e.g., 2:1)

**SLOPE WASH:** Soil and/or rock material that has been transported down a slope by action of gravity assisted by runoff water not confined by channels (also see Colluvium).

**SOIL:** Naturally occurring deposits of sand, silt, clay, etc., or combinations thereof.

**SOIL ENGINEER:** Licensed Geotechnical Engineer or Civil Engineer experienced in soil mechanics (also see Geotechnical Engineer).

**STABILIZATION FILL:** A fill mass, the configuration of which is typically related to slope height and specified by the standards of practice for enhancing the stability of locally adverse conditions. A stabilization fill is normally specified by minimum key width and depth and by maximum backcut angle. A stabilization fill may or may not have a backdrainage system specified.

**SUBDRAIN:** Generally a pipe and gravel or similar drainage system placed beneath a fill in the alignment of canyons or formed drainage channels.

**SLOUGH:** Loose, non-compacted fill material generated during grading operations.

**TAILINGS:** Non-engineered fill which accumulates on or adjacent to equipment haul-roads.

**TERRACE:** Relatively level step constructed in the face of a graded slope surface for drainage control and maintenance purposes.

**TOPSOIL:** The presumable fertile upper zone of soil, which is usually darker in color and loose.

**WINDROW:** A string of large rocks buried within engineered fill in accordance with guidelines set forth by the Geotechnical Consultant.

### **OBLIGATIONS OF PARTIES**

The Geotechnical Consultant should provide observation and testing services and should make evaluations in order to advise the Client on Geotechnical matters. The Geotechnical Consultant should report his findings and recommendations to the Client or his authorized representative.

The client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the Geotechnical Consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services.

During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor should be responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including but not limited to, earthwork in accordance with the project plans, specifications and controlling agency requirements. During grading, the Contractor or his authorized representative should remain on-site. Overnight and on days off, the Contractor should remain accessible.

### **SITE PREPARATION**

The Client, prior to any site preparation or grading, should arrange and attend a meeting among the Grading Contractor, the Design Engineer, the Geotechnical Consultant, representatives of the appropriate governing authorities as well as any other concerned parties. All parties should be given at least 48 hours notice.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, roots of trees and otherwise deleterious natural materials from the areas to be graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or re-routing pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the Geotechnical Consultant at the time of the demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the Contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the Geotechnical Consultant.

The Client or Contractor should obtain the required approvals for the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

### **SITE PROTECTION**

Protection of the site during the period of grading should be the responsibility of the Contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the Geotechnical Consultant, the Client and the regulating agencies.

The Contractor should be responsible for the stability of all temporary excavations. Recommendations by the Geotechnical Consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and therefore, should not be considered to preclude the responsibilities of the Contractor. Recommendations by the Geotechnical Consultant should not be considered to preclude more restrictive requirements by the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding, or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas can not be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

During periods of rainfall, plastic sheeting should be kept reasonably accessible to prevent unprotected slopes from becoming saturated. Where necessary during periods of rainfall, the Contractor should install check-dams de-silting basins, rip-rap, sandbags or other devices or methods necessary to control erosion and provide safe conditions.

During periods of rainfall, the Geotechnical Consultant should be kept informed by the Contractor as to the nature of remedial or preventative work being performed (e.g., pumping, placement of sandbags or plastic sheeting, other labor, dozing, etc.).

Following periods of rainfall, the Contractor should contact the Geotechnical Consultant and arrange a walk-over of the site in order to visually assess rain related damage. The Geotechnical Consultant may also recommend excavations and testing in order to aid in his assessments. At the request of the Geotechnical Consultant, the Contractor shall make excavations in order to evaluate the extent of rain related damage.

Rain-related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions identified by the Geotechnical Consultant. Soil adversely affected should be classified as Unsuitable Materials and should be subject to overexcavation and replaced with compacted fill or other remedial grading as recommended by the Geotechnical Consultant.

Relatively level areas, where saturated soils and/or erosion gullies exist to depths greater than 1 foot, should be overexcavated to unaffected, competent material. Where less than 1 foot in depth, unsuitable materials may be processed in-place to achieve near optimum moisture conditions, then thoroughly recompacted in accordance with the applicable specifications. If the desired results are not achieved, the affected materials should be overexcavated then replaced in accordance with the applicable specifications.

In slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1 foot, should be over-excavated to unaffected, competent material. Where affected materials exist to depths of 1 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. As field conditions dictate, other slope repair procedures may be recommended by the Geotechnical Consultant.

## **EXCAVATIONS**

### **UNSUITABLE MATERIALS:**

Materials which are unsuitable should be excavated under observation and recommendations of the Geotechnical Consultant. Unsuitable materials include, but may not be limited to dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft, bedrock and nonengineered or otherwise deleterious fill materials.

Materials identified by the Geotechnical Consultant as unsatisfactory due to its moisture conditions should be overexcavated, watered or dried, as needed, and thoroughly blended to uniform near optimum moisture condition (per Moisture guidelines presented herein) prior to placement as compacted fill.

### **CUT SLOPES:**

Unless otherwise recommended by the Geotechnical Consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal:vertical).

If excavations for cut slopes expose loose, cohesionless, significantly fractured or otherwise suitable material, overexcavation and replacement of the unsuitable materials with a compacted stabilization fill should be accomplished as recommended by the Geotechnical Consultant. Unless otherwise specified by the Geotechnical Consultant, stabilization fill construction should conform to the requirements of the Standard Details.

The Geotechnical Consultant should review cut slopes during excavation. The Geotechnical Consultant should be notified by the contractor prior to beginning slope excavations.

If during the course of grading, adverse or potentially adverse geotechnical conditions are encountered which were not anticipated in the preliminary report, the Geotechnical Consultant should explore, analyze and make recommendations to treat these problems.

When cuts slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top-of-cut.

### **PAD AREAS:**

All lot pad areas, including side yard terraces, above stabilization fills or buttresses should be over-excavated to provide for a minimum of 3-feet (refer to Standard Details) of compacted fill over the entire pad area. Pad areas with both fill and cut materials exposed and pad areas containing both very shallow (less than 3-feet) and deeper fill should be over- thickness (refer to Standard Details).

Cut areas exposing significantly varying material types should also be overexcavated to provide for at least a 3-foot thick compacted fill blanket. Geotechnical conditions may require greater depth of overexcavation. The actual depth should be delineated by the Geotechnical Consultant during grading.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slope of 2 percent or greater is recommended.

### **COMPACTED FILL**

All fill materials should be compacted as specified below or by other methods specifically recommended by the Geotechnical Consultant. Unless otherwise specified, the minimum degree of compaction (relative compaction) should be 90 percent of the laboratory maximum density.

### **PLACEMENT**

Prior to placement of compacted fill, the Contractor should request a review by the Geotechnical Consultant of the exposed ground surface. Unless otherwise recommended, the exposed ground surface should then be scarified (6-inches minimum), watered or dried as needed, thoroughly blended to achieve near optimum moisture conditions, then thoroughly compacted to a minimum of 90 percent of the maximum density. The review by the Geotechnical Consultants should not be considered to preclude requirements of inspection and approval by the governing agency.

Compacted fill should be placed in thin horizontal lifts not exceeding 8-inches in loose thickness prior to compaction. Each lift should be watered or dried as needed, thoroughly blended to achieve near optimum moisture conditions then thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The Contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials. If necessary, excavation equipment should be "shut down" temporarily in order to permit proper compaction of fills. Earth moving equipment should only be considered a supplement and not substituted for conventional compaction equipment.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal:vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least 6-foot wide benches and minimum of 4-feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area subsequent to keying and benching until the area has been reviewed by the Geotechnical Consultant. Material generated by the benching operation should be moved sufficiently away from the bench area to allow for the recommended review of the horizontal bench prior to placement of fill. Typical keying and benching details have been included within the accompanying Standard Details.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Fill should be tested for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Testing D 1556-64, D 2922-78 and/or D2937-71. Tests should be provided for about every 2 vertical feet or 1,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the Geotechnical Consultant.

The Contractor should assist the Geotechnical Consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill.

As recommended by the Geotechnical Consultant, the Contractor should "shutdown" or remove any grading equipment from an area being tested.

The Geotechnical Consultant should maintain a plan with estimated locations of field tests. Unless the client provides for actual surveying of test locations, by the Geotechnical Consultant should only be considered rough estimates and should not be utilized for the purpose of preparing cross sections showing test locations or in any case for the purpose of after-the-fact evaluating of the sequence of fill placement.

### MOISTURE

For field testing purposes, “near optimum” moisture will vary with material type and other factors including compaction procedures. “Near optimum” may be specifically recommended in Preliminary Investigation Reports and/or may be evaluated during grading.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface of previously compacted fill should be processed by scarification, watered or dried as needed, thoroughly blended to near-optimum moisture conditions, then recompact to a minimum of 90 percent of laboratory maximum dry density. Where wet or other dry or other unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be overexcavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

### FILL MATERIAL

Excavated on-site materials which are acceptable to the Geotechnical Consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement.

Where import materials are required for use on-site, the Geotechnical Consultant should be notified at least 72 hours in advance of importing, in order to sample and test materials from proposed borrow sites. No import materials should be delivered for use on-site without prior sampling and testing by Geotechnical Consultant.

Where oversized rock or similar irreducible material is generated during grading, it is recommended, where practical, to waste such material off-site or on-site in areas designated as “nonstructural rock disposal areas”. Rock placed in disposal areas should be placed with sufficient fines to fill voids. The rock should be compacted in lifts to an unyielding condition. The disposal area should be covered with at least 3-feet of compacted fill, which is free of oversized material. The upper 3-feet should be placed in accordance with the guidelines for compacted fill herein.

Rocks 3 inches in maximum dimension and smaller may be utilized within the compacted fill, provided they are placed in such a manner that nesting of the rock is avoided. Fill should be placed and thoroughly compacted over and around all rock. The amount of rock should not exceed 40 percent by dry weight passing the  $\frac{3}{4}$ -inch sieve size. The 3-inch and 40 percent recommendations herein may vary as field conditions dictate.

During the course of grading operations, rocks or similar irreducible materials greater than 3-inch maximum dimension (oversized material) may be generated. These rocks should not be placed within the compacted fill unless placed as recommended by the Geotechnical Consultant.

Where rocks or similar irreducible materials of greater than 3-inches but less than 4-feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with the accompanying Standard Details is recommended. Rocks greater than 4 feet should be broken down or disposed off-site. Rocks up to 4-feet maximum dimension should be placed below the upper 10-feet of any fill and should not be closer than 20-feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures of deep utilities are proposed.

Oversized material should be placed in windrows on a clean, overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so that successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the Geotechnical Consultant at time of placement.

Material that is considered unsuitable by the Geotechnical Consultant should not be utilized in the compacted fill.

During grading operations, placing and mixing the materials from the cut and/or borrow areas may result in soil mixtures which possess unique physical properties. Testing may be required of samples obtained directly from the fill areas in order to verify conformance with the specifications. Processing of these additional samples may take two or more working days. The Contractor may elect to move the operation to other areas within the project, or may continue placing compacted fill pending laboratory and field test results. Should he elect the second alternative, fill placed is done so at the Contractor’s risk.

Any fill placed in areas not previously reviewed and evaluated by the Geotechnical Consultant, and/or in other areas, without prior notification to the Geotechnical Consultant may require removal and recompaction at the Contractor's expense. Determination of overexcavations should be made upon review of field conditions by the Geotechnical Consultant.

#### FILL SLOPES

Unless otherwise recommended by the Geotechnical Consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal to vertical).

Except as specifically recommended otherwise or as otherwise provided for in these grading guidelines (Reference Fill Materials), compacted fill slopes should be overbuilt and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the Geotechnical Consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the Contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

Although no construction procedure produces a slope free from risk of future movement, overfilling and cutting back of slope to a compacted inner core is, given no other constraints, the most desirable procedure. Other constraints, however, must often be considered. These constraints may include property line situations, access, the critical nature of the development, and cost. Where such constraints are identified, slope face compaction may be attempted by conventional construction procedures including backrolling techniques upon specific recommendations by the Geotechnical Consultant.

As a second best alternative for slopes of 2:1 (horizontal to vertical) or flatter, slope construction may be attempted as outlined herein. Fill placement should proceed in thin lifts, (i.e., 6 to 8 inch loose thickness). Each lift should be moisture conditioned and thoroughly compacted. The desired moisture condition should be maintained and/or reestablished, where necessary, during the period between successive lifts. Selected lifts should be tested to ascertain that desired compaction is being achieved. Care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately establish desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not exceeding 4-feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly backrolled utilizing a conventional sheepsfoot-type roller. Care should be taken to maintain the desired moisture conditions and/or reestablishing same as needed prior to backrolling. Upon achieving final grade, the slopes should again be moisture conditioned and thoroughly backrolled. The use of a side-boom roller will probably be necessary and vibratory methods are strongly recommended. Without delay, so as to avoid (if possible) further moisture conditioning, the slopes should then be grid-rolled to achieve a relatively smooth surface and uniformly compact condition.

In order to monitor slope construction procedures, moisture and density tests will be taken at regular intervals. Failure to achieve the desired results will likely result in a recommendation by the Geotechnical Consultant to overexcavate the slope surfaces followed by reconstruction of the slopes utilizing overfilling and cutting back procedures and/or further attempt at the conventional backrolling approach. Other recommendations may also be provided which would be commensurate with field conditions.

Where placement of fill above a natural slope or above a cut slope is proposed, the fill slope configuration as presented in the accompanying standard Details should be adopted.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm and pad gradients of at least 2-percent in soil area.

#### OFF-SITE FILL

Off-site fill should be treated in the same manner as recommended in these specifications for site preparation, excavation, drains, compaction, etc.

Off-site canyon fill should be placed in preparation for future additional fill, as shown in the accompanying Standard Details.

Off-site fill subdrains temporarily terminated (up canyon) should be surveyed for future relocation and connection.

## **DRAINAGE**

Canyon sub-drain systems specified by the Geotechnical Consultant should be installed in accordance with the Standard Details.

Typical sub-drains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications of the accompanying Standard Details.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, concrete swales).

For drainage over soil areas immediately away from structures (i.e., within 4-feet), a minimum of 4 percent gradient should be maintained. Pad drainage of at least 2 percent should be maintained over soil areas. Pad drainage may be reduced to at least 1 percent for projects where no slopes exist, either natural or man-made, or greater than 10-feet in height and where no slopes are planned, either natural or man-made, steeper than 2:1 (horizontal to vertical slope ratio).

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns can be detrimental to slope stability and foundation performance.

## **STAKING**

In all fill areas, the fill should be compacted prior to the placement of the stakes. This particularly is important on fill slopes. Slope stakes should not be placed until the slope is thoroughly compacted (backrolled). If stakes must be placed prior to the completion of compaction procedures, it must be recognized that they will be removed and/or demolished at such time as compaction procedures resume.

In order to allow for remedial grading operations, which could include overexcavations or slope stabilization, appropriate staking offsets should be provided. For finished slope and stabilization backcut areas, we recommend at least 10-foot setback from proposed toes and tops-of-cut.

## **SLOPE MAINTENANCE LANDSCAPE PLANTS**

In order to enhance superficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the Southern California area and plants relative to native plants are generally desirable. Plants native to other semiarid and arid areas may also be appropriate. A Landscape Architect would be the best party to consult regarding actual types of plants and planting configuration.

## **IRRIGATION**

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

Though not a requirement, consideration should be given to the installation of near-surface moisture monitoring control devices. Such devices can aid in the maintenance of relatively uniform and reasonably constant moisture conditions.

Property owners should be made aware that overwatering of slopes is detrimental to slope stability.

## **MAINTENANCE**

Periodic inspections of landscaped slope areas should be planned and appropriate measures should be taken to control weeds and enhance growth of the landscape plants. Some areas may require occasional replanting and/or reseeding.

Terrace drains and downdrains should be periodically inspected and maintained free of debris. Damage to drainage improvements should be repaired immediately.

Property owners should be made aware that burrowing animals can be detrimental to slope stability. A preventative program should be established to control burrowing animals.

As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period of time prior to landscape planting.

### **REPAIRS**

If slope failures occur, the Geotechnical Consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

If slope failure occurs as a result of exposure to periods of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer 1 foot to 3 feet of a slope face).

### **TRENCH BACKFILL**

Utility trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 95 percent of the laboratory maximum density.

Approved granular material (sand equivalent greater than 30) should be used to bed and backfill utilities to a depth of at least 1 foot over the pipe. This backfill should be uniformly watered, compacted and/or wheel-rolled from the surface to a firm condition for pipe support.

The remainder of the backfill shall be typical on-site soil or imported soil which should be placed in lifts not exceeding 8 inches in thickness, watered or aerated to at least 3 percent above the optimum moisture content, and mechanically compacted to at least 95 percent of maximum dry density (based on ASTM D1557).

Backfill of exterior and interior trenches extending below a 1:1 projection from the outer edge of foundations should be mechanically compacted to a minimum of 95 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to 1 foot wide and 2 feet deep may be backfilled with sand and consolidated by uniformly watering or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of back-fill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the Contractor may elect the utilization of light weight compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review by the Geotechnical Consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the Geotechnical Consultant.

Clean Granular backfill and/or bedding are not recommended in slope areas unless provisions are made for a drainage system to mitigate the potential build-up of seepage forces.

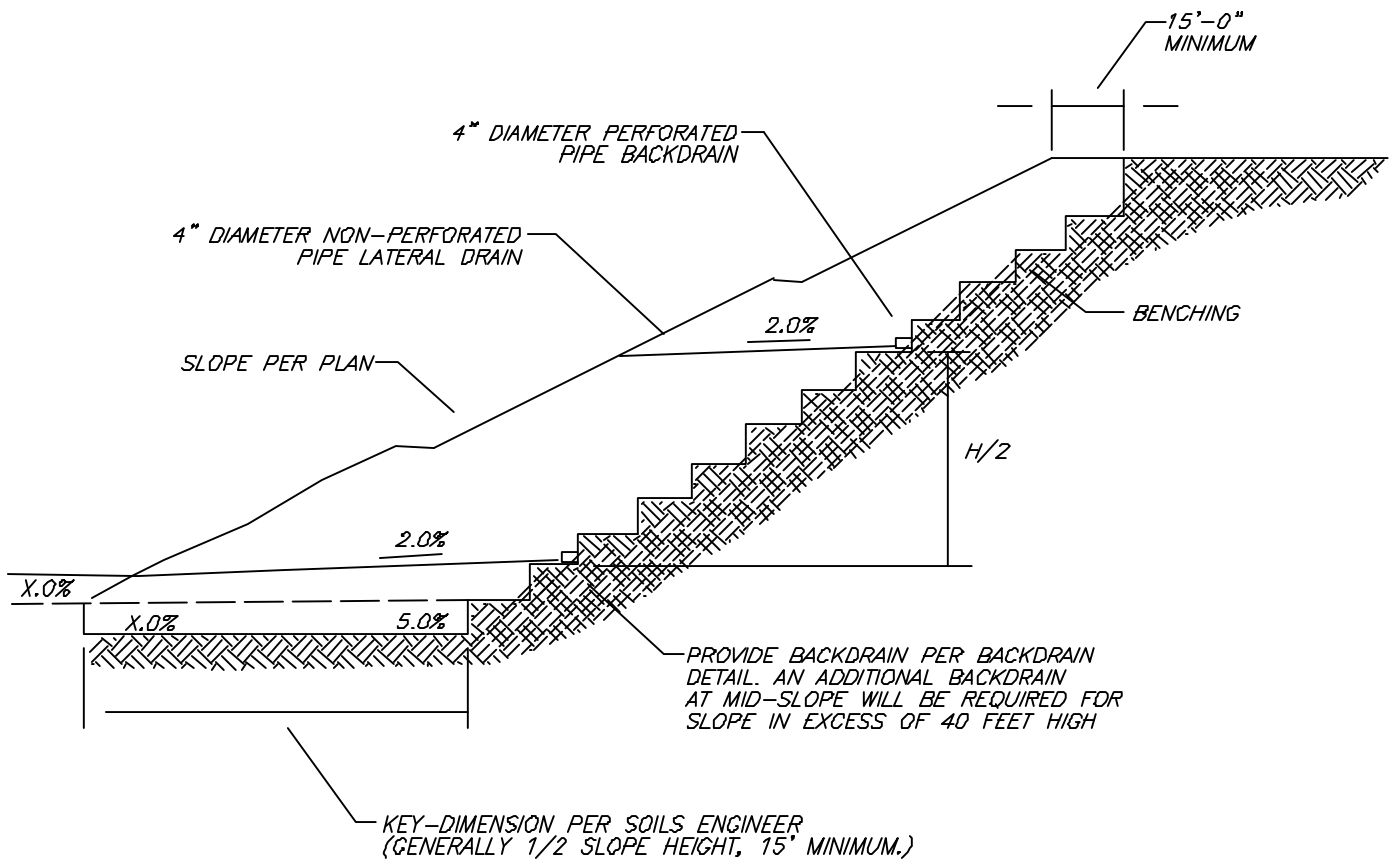
### **STATUS OF GRADING**

Prior to proceeding with any grading operation, the Geotechnical Consultant should be notified at least two working days in advance in order to schedule the necessary observation and testing services.

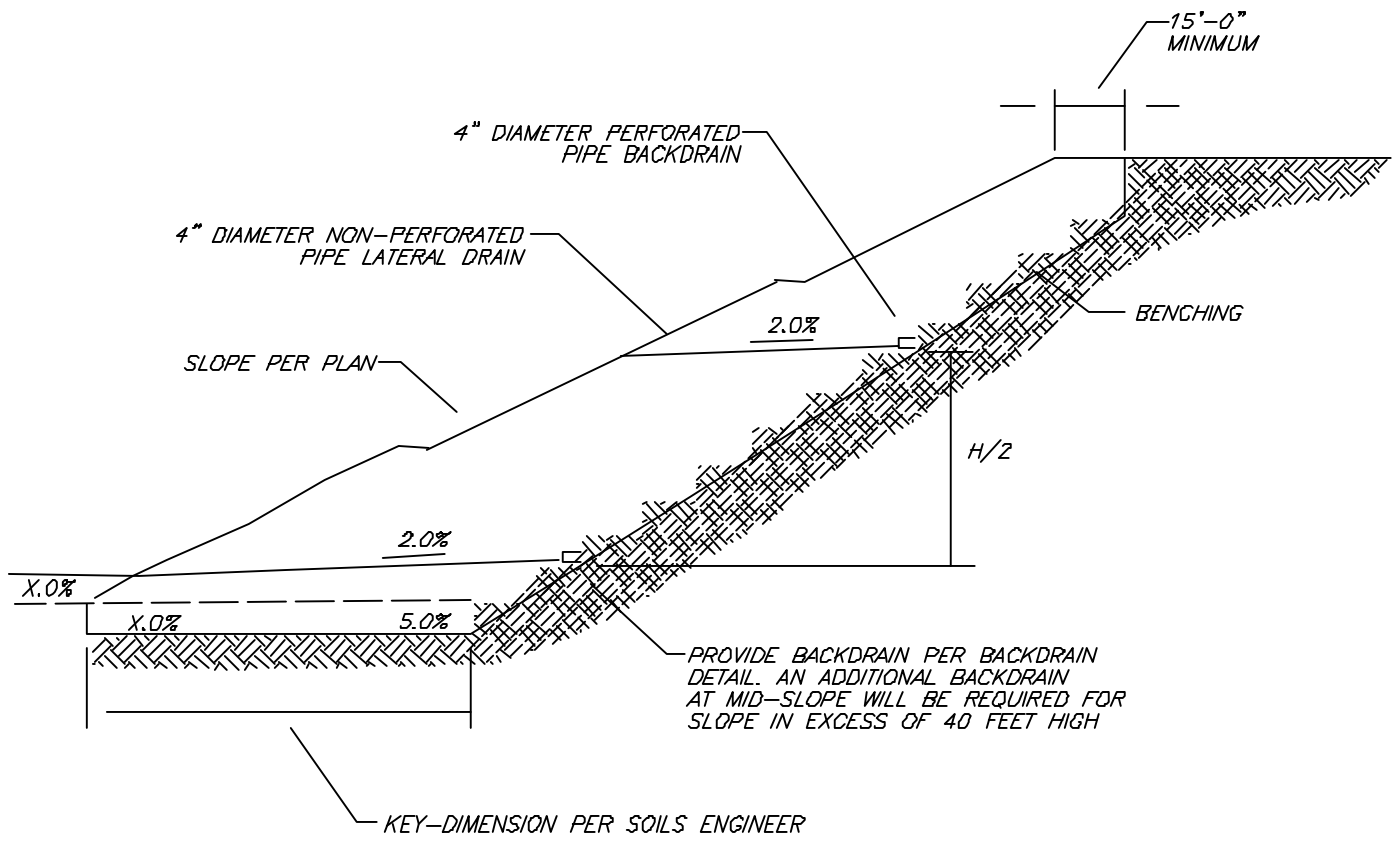
Prior to any significant expansion of cut back in the grading operation, the Geotechnical Consultant should be provided with adequate notice (i.e., two days) in order to make appropriate adjustments in observation and testing services.

Following completion of grading operations and/or between phases of a grading operation, the Geotechnical Consultant should be provided with at least two working days notice in advance of commencement of additional grading operations.

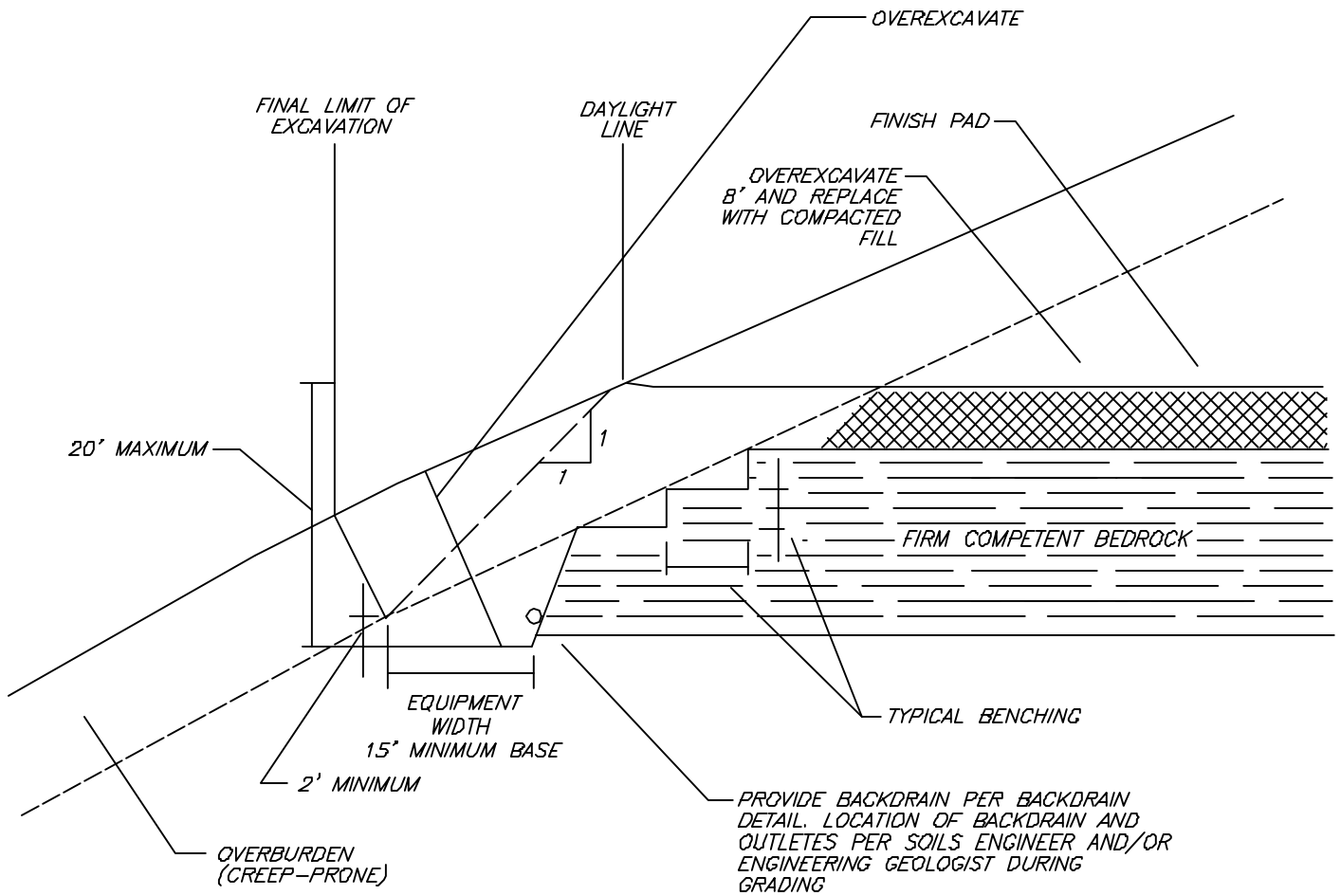




TYPICAL STABILIZATION FILL DETAIL

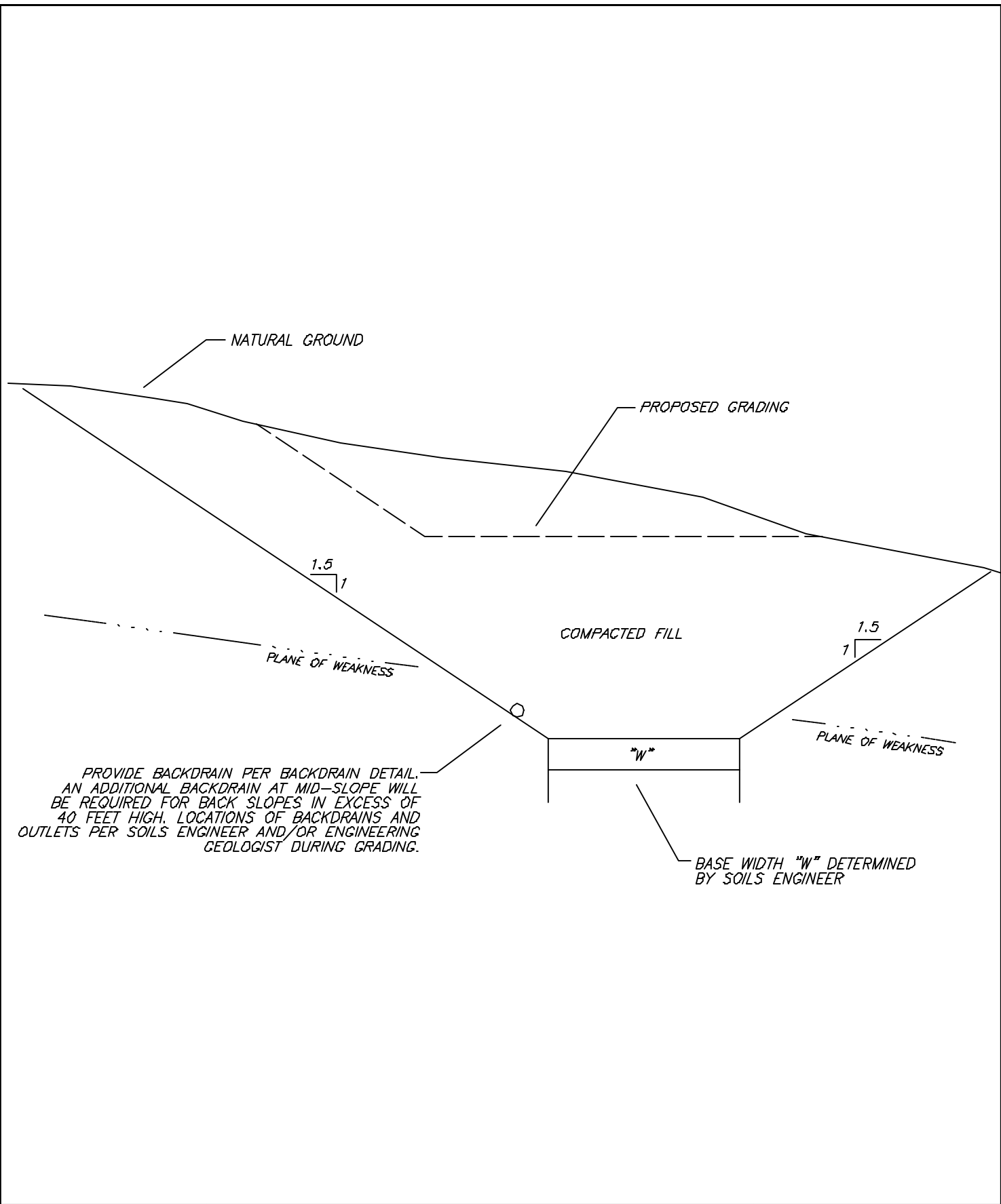


TYPICAL BUTTRESS FILL DETAIL

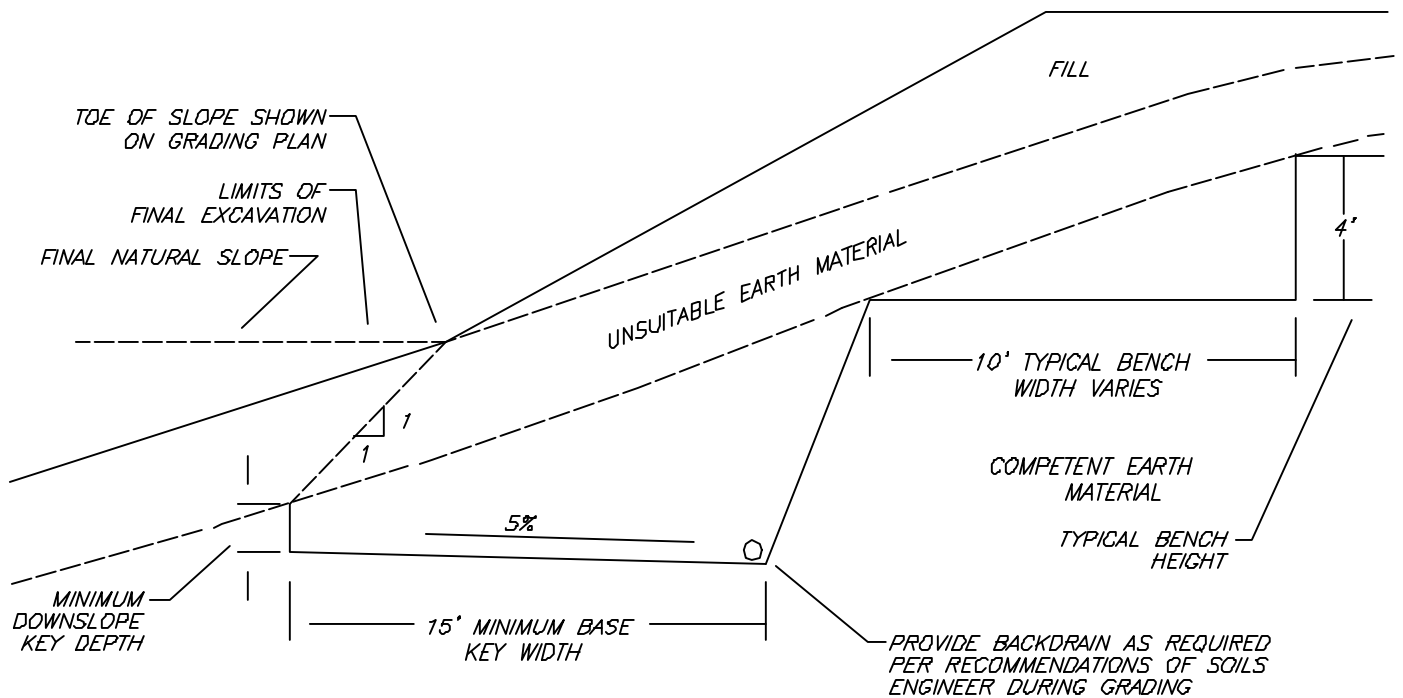


DAYLIGHT SHEAR KEY DETAIL

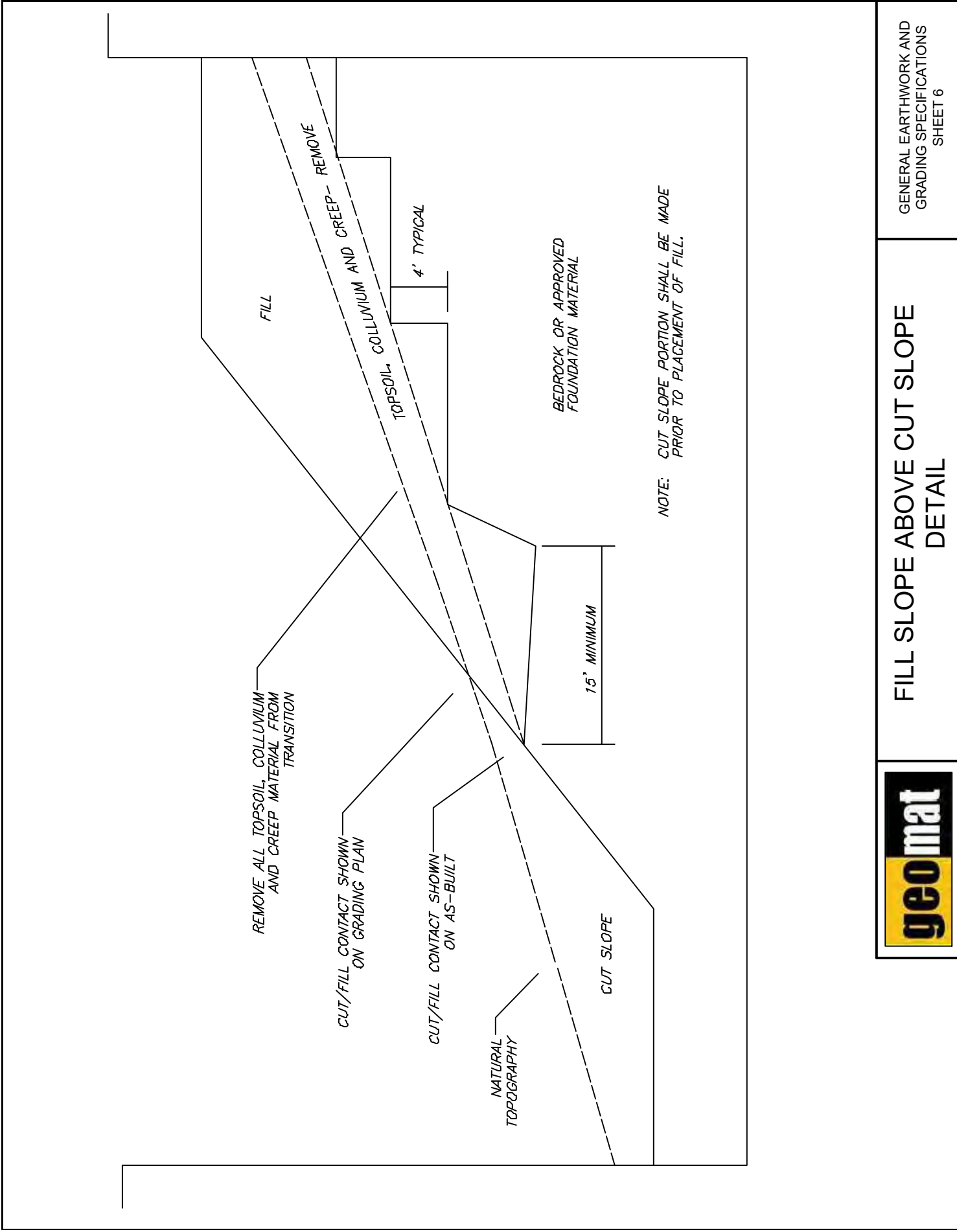
GENERAL EARTHWORK AND GRADING SPECIFICATIONS SHEET 3



TYPICAL SHEAR KEY DETAIL



WHERE NATURAL SLOPE IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. HOWEVER, FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.



REMOVE ALL TOPSOIL, COLLUVIUM  
AND CREEP MATERIAL FROM  
TRANSITION

CUT/FILL CONTACT SHOWN  
ON GRADING PLAN

CUT/FILL CONTACT SHOWN  
ON AS-BUILT

NATURAL  
TOPOGRAPHY

CUT SLOPE

FILL

REMOVE

TOPSOIL, COLLUVIUM AND CREEP

4' TYPICAL

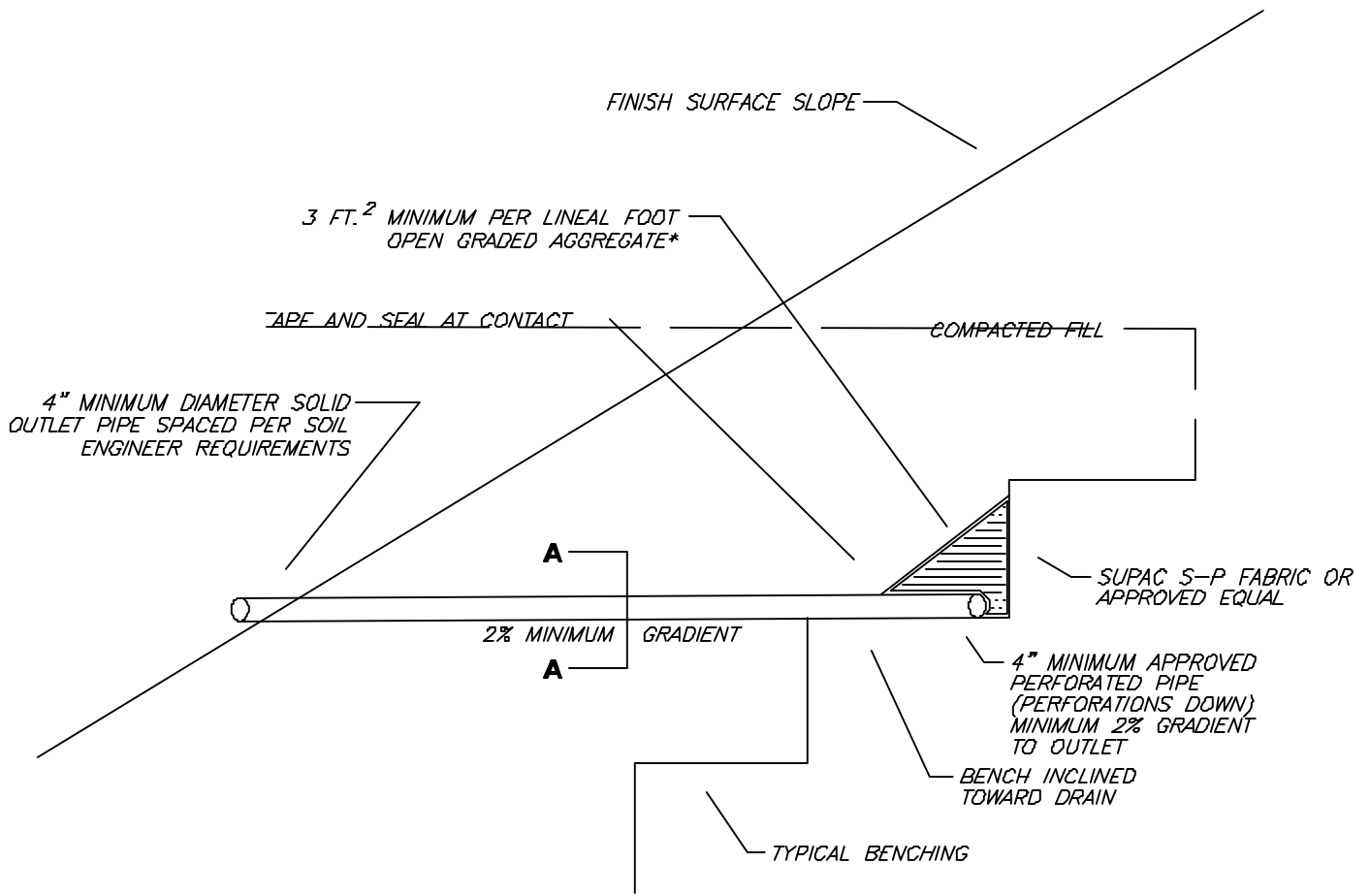
BEDROCK OR APPROVED  
FOUNDATION MATERIAL

15' MINIMUM

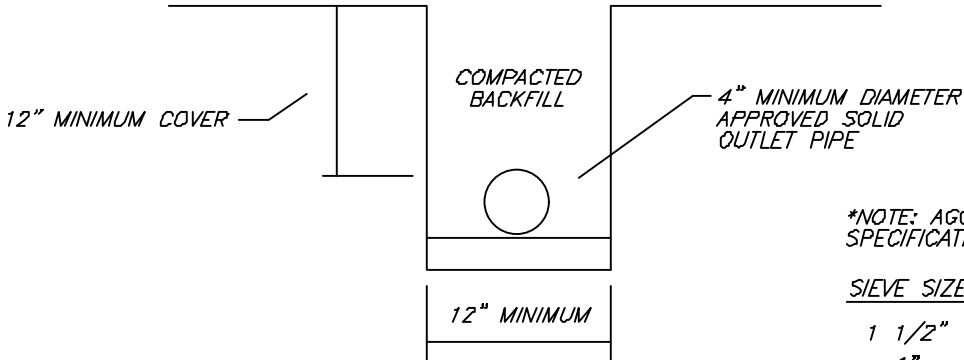
NOTE: CUT SLOPE PORTION SHALL BE MADE  
PRIOR TO PLACEMENT OF FILL.



# FILL SLOPE ABOVE CUT SLOPE DETAIL



**DETAIL A-A**

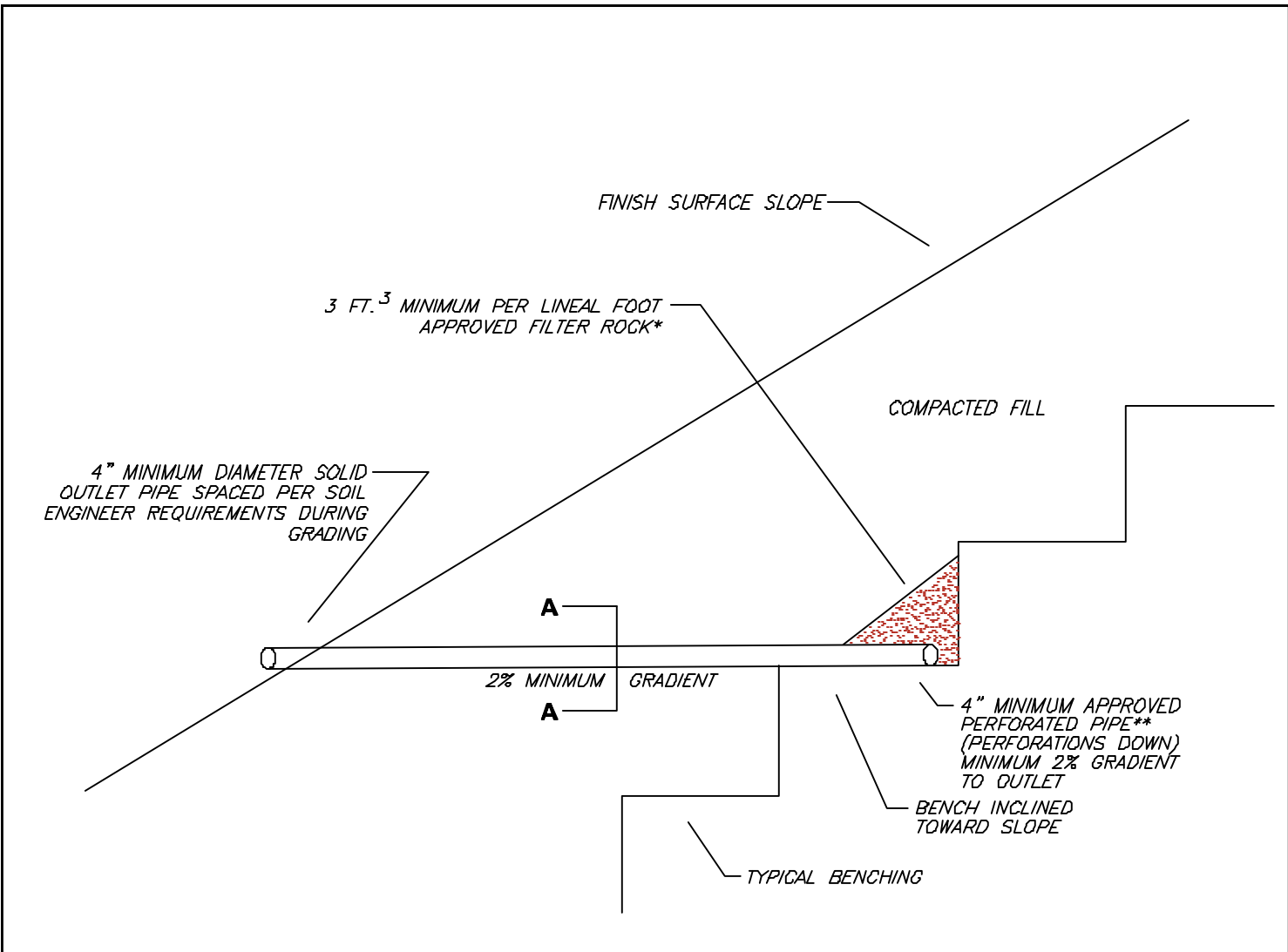


\*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

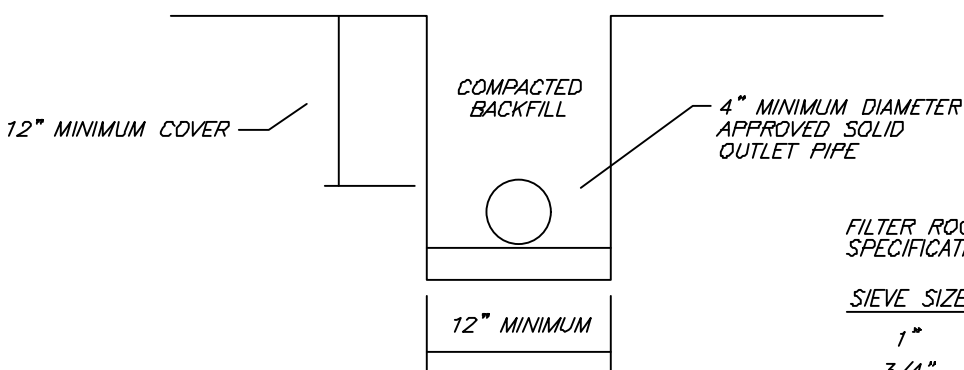
SIEVE SIZE	PERCENTAGE PASSING
1 1/2"	100
1"	5-40
3/4"	0-17
3/8"	0-7
NO. 200	0-3



**BACKDRAIN DETAIL (GEOFABRIC)**



**DETAIL A-A**



FILTER ROCK MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

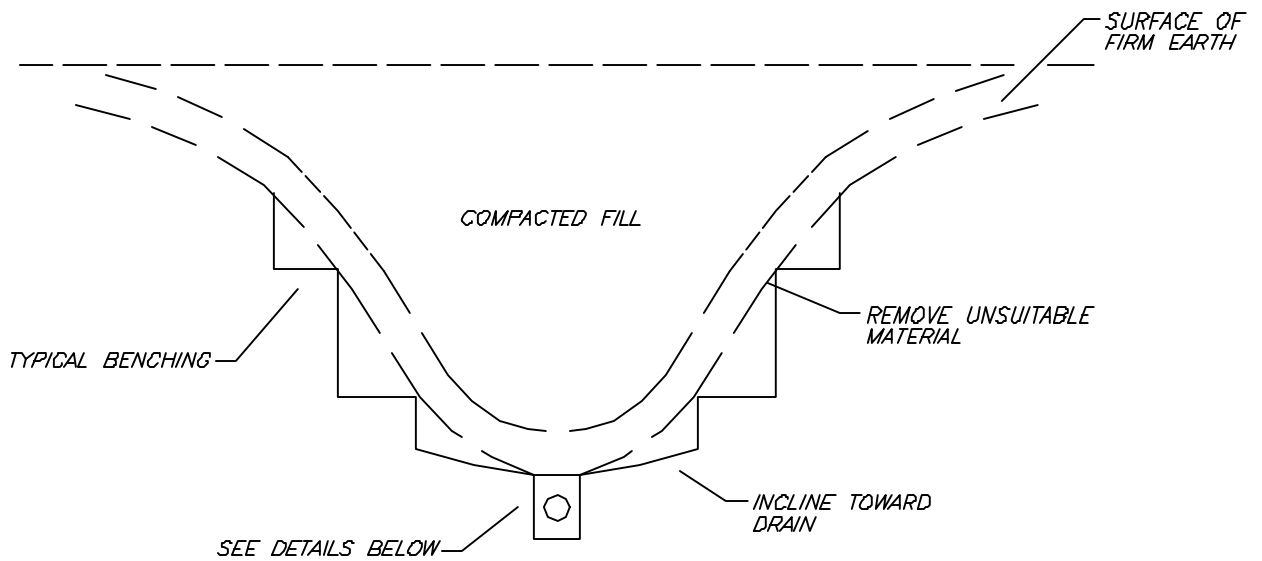
SIEVE SIZE	PERCENTAGE
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

**\*\*APPROVED PIPE TYPE:**  
 SCHEDULE 40 POLYVINYL CHLORIDE  
 (P.V.C.) OR APPROVED EQUAL.  
 MINIMUM CRUSH STRENGTH 1000 PSI.



**TYPICAL BACKDRAIN DETAIL**

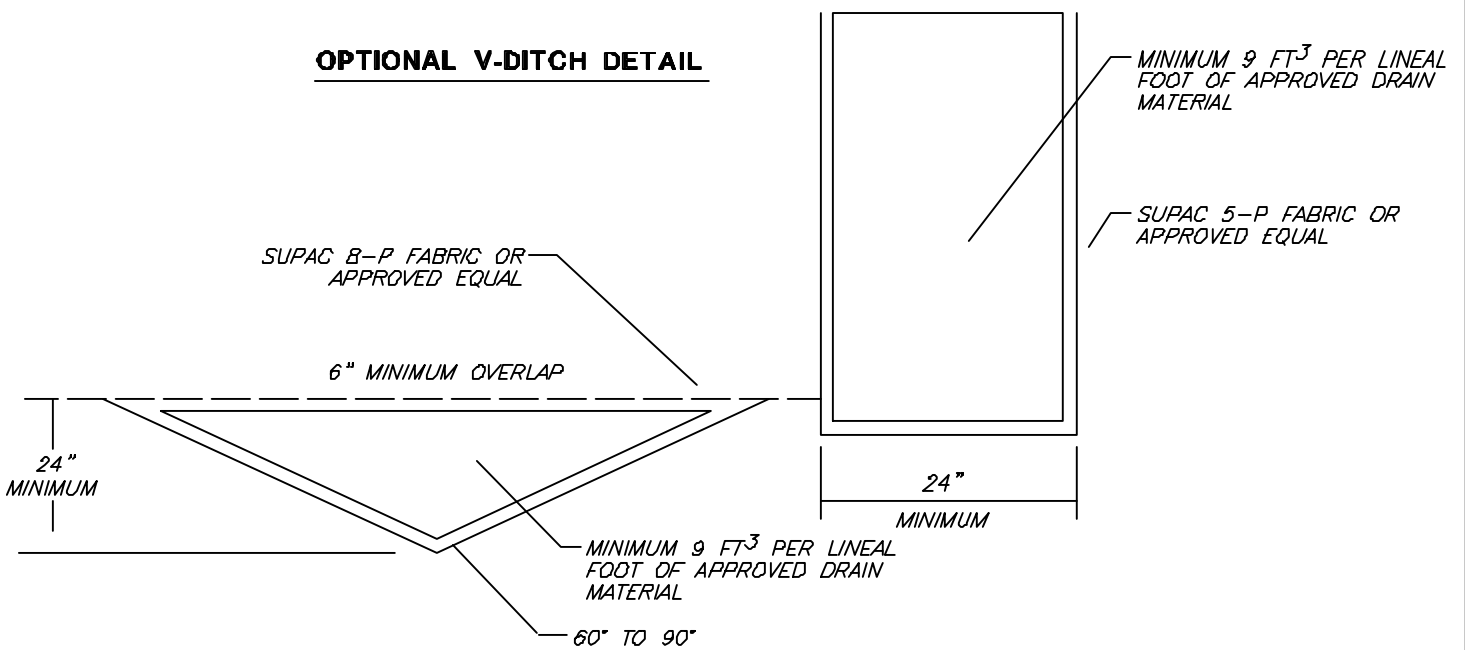




**TRENCH DETAIL**

6" MINIMUM OVERLAP

**OPTIONAL V-DITCH DETAIL**



DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1-1/2"	88-100
1"	5-40
3/4"	0-17
3/8"	0-7
NO.:200	0-3

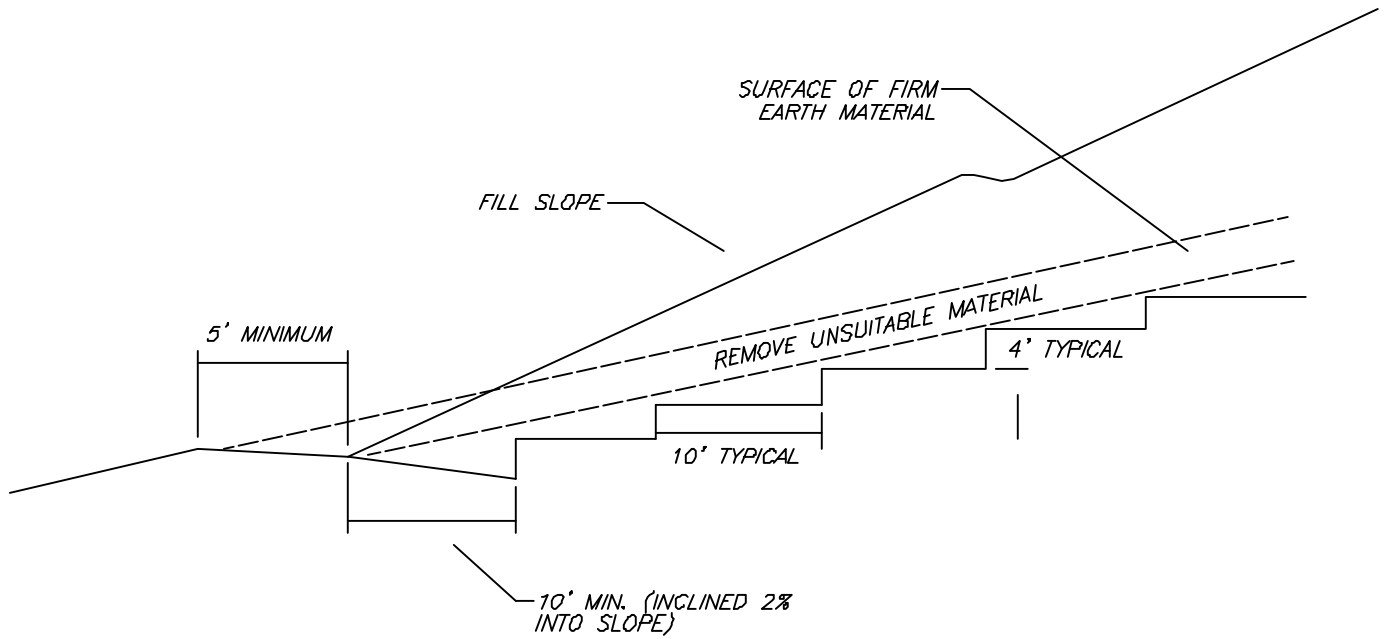
ADD MINIMUM 4" DIAMETER APPROVED PERFORATED PIPE WHEN GRADIENT IS LESS THAN 2%

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi.

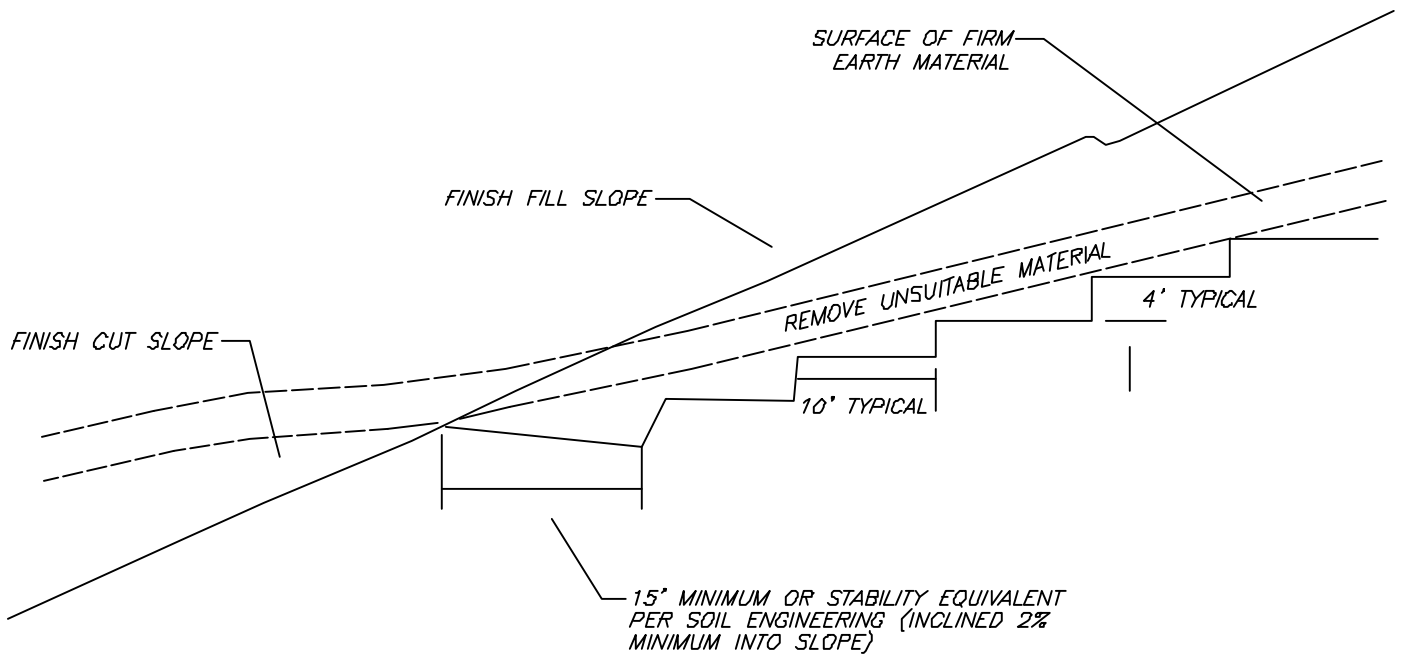


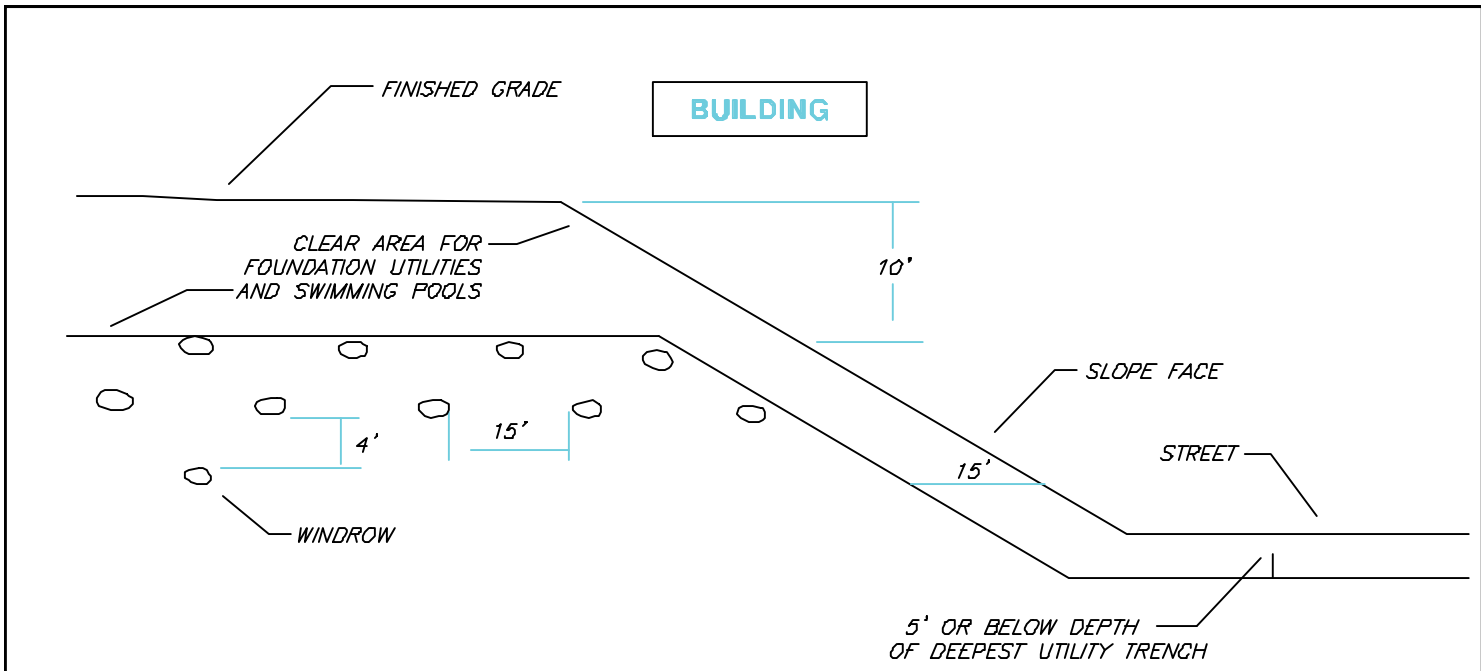
**GEOFABRIC SUBDRAIN DETAIL**

## BENCHING FILL OVER NATURAL

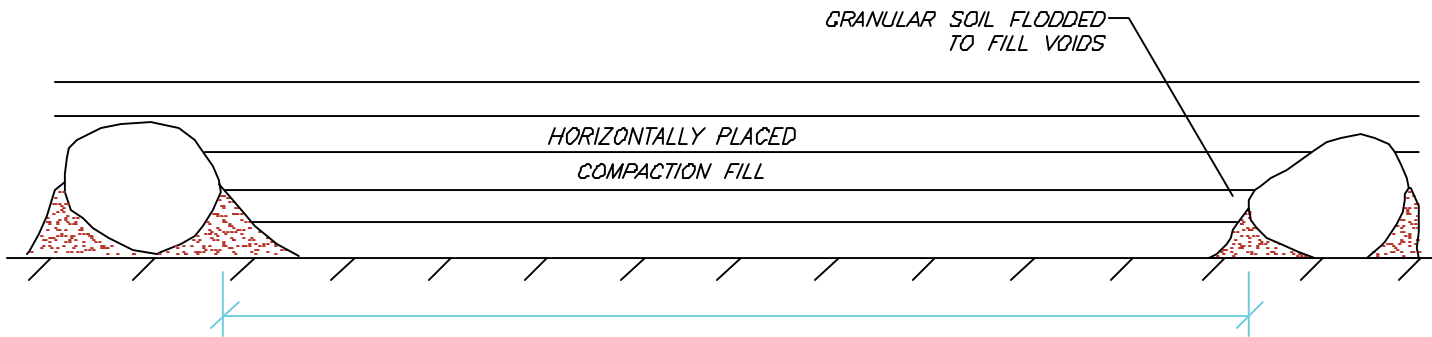


## BENCHING FILL OVER CUT

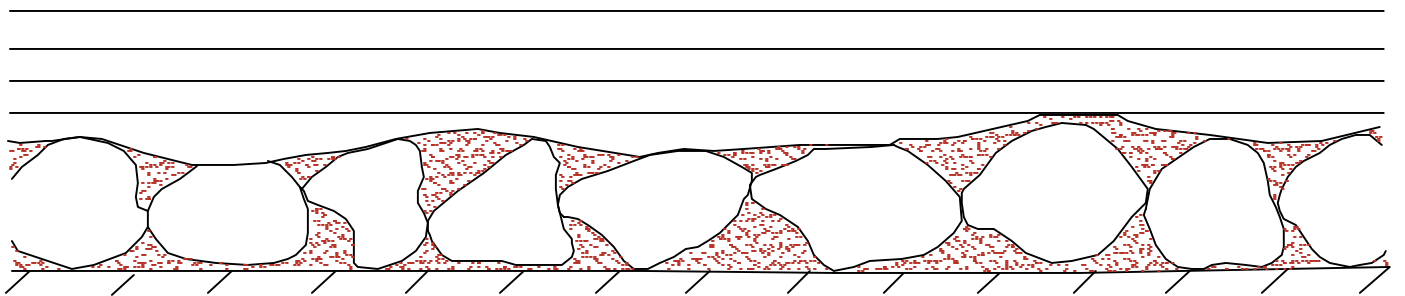


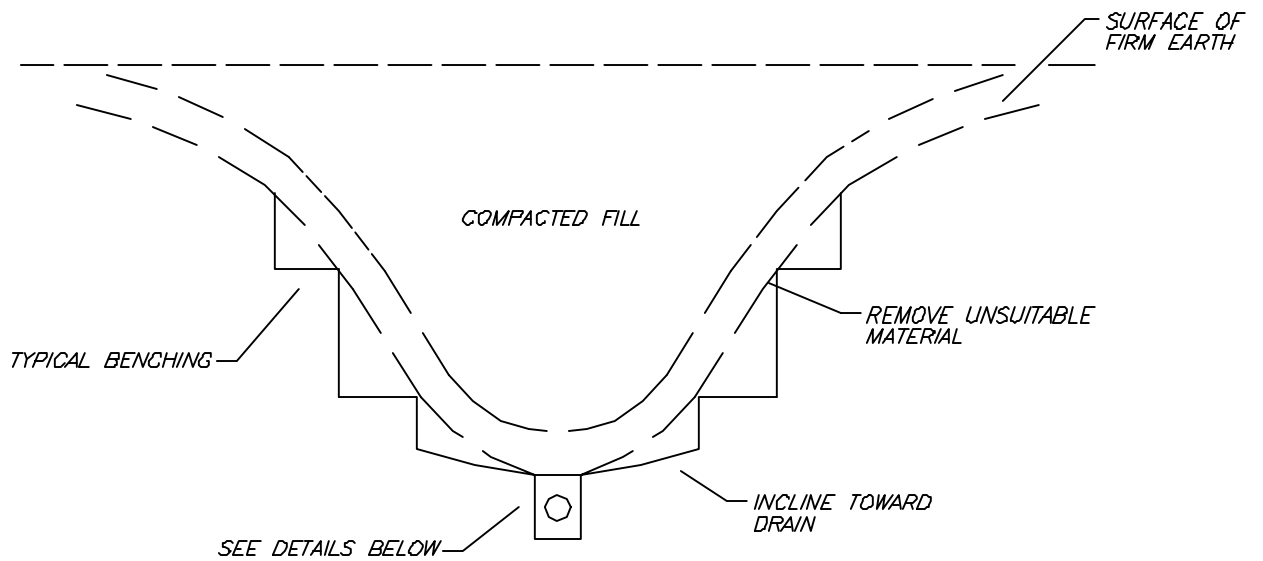


**TYPICAL WINDROW DETAIL (EDGE VIEW)**

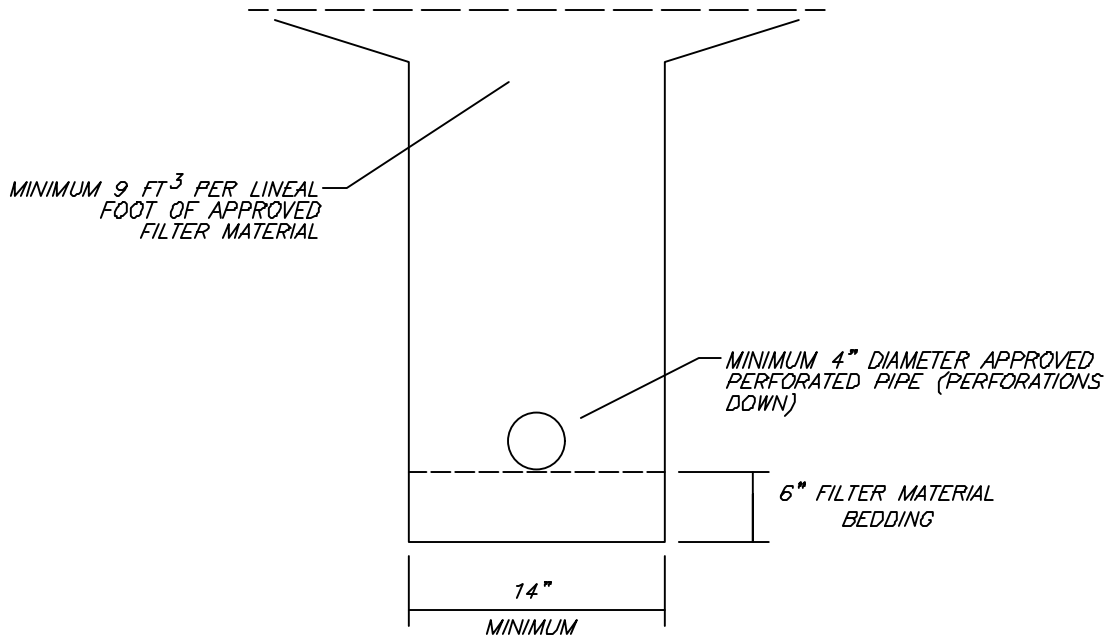


**PROFILE VIEW**





**TRENCH DETAIL**



FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

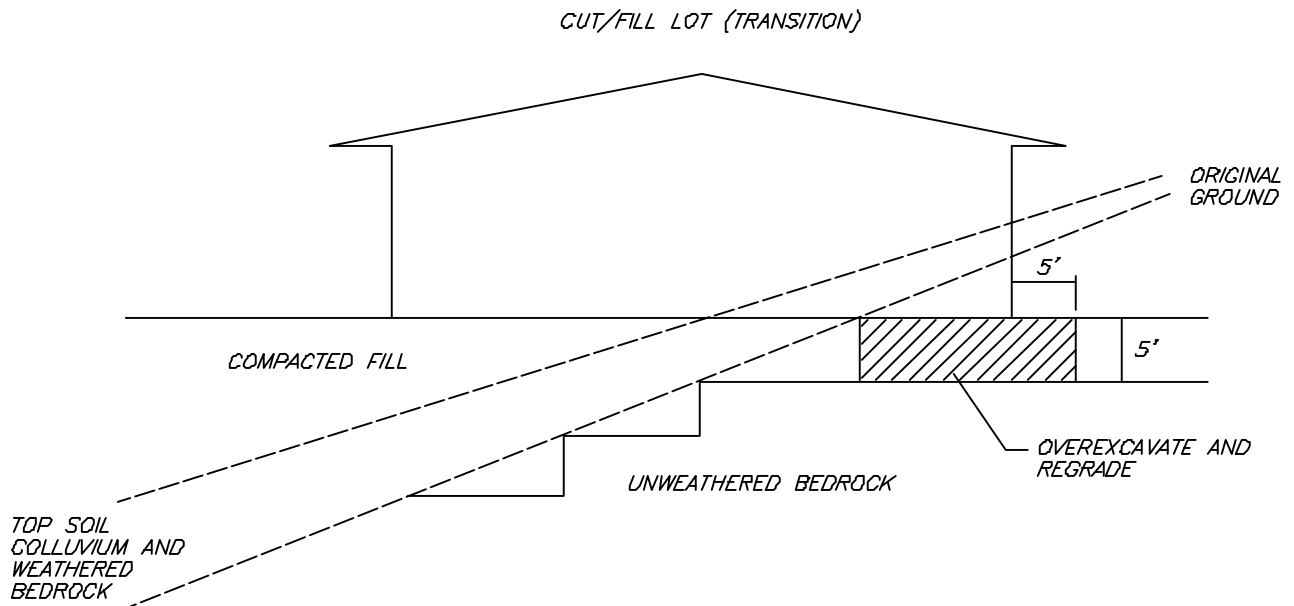
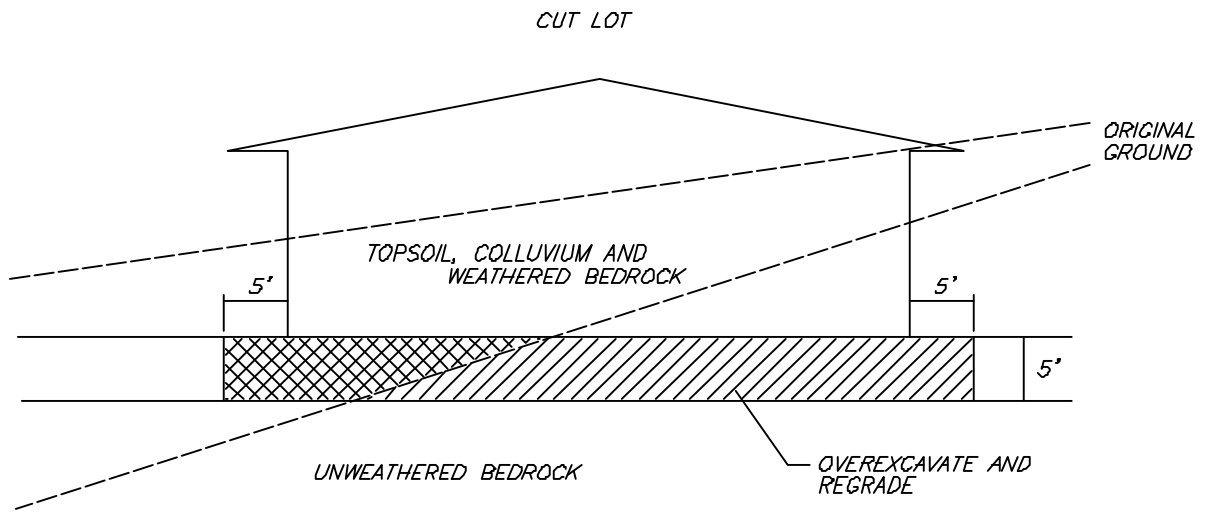
APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi.

PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA. SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING.

LENGTH OF RUN	PIPE DIAMETER
UPPER 500'	4"
NEXT 1000'	6"
> 1500'	8"



**TYPICAL CANYON SUBDRAIN DETAIL**



# APPENDIX G

## SLOPE MAINTENANCE GUIDELINES



**GeoMat Testing Laboratories, Inc.**  
Geotechnical Engineering  
Engineering Geology  
Material Testing

**Inland Empire**  
9980 Indiana Ave, Suite 14  
Riverside, California 92503  
Office (951) 688-5400

**Los Angeles**  
5714 W. 96<sup>th</sup> Street  
Los Angeles, California 90045  
Office (310) 337-9400

[geomatlabs.com](http://geomatlabs.com)

### SLOPE MAINTENANCE GUIDELINES

Hillside lots in general, and hillside slopes in particular, need maintenance to continue to function and retain their value. Many homeowners are unaware of this and allow deterioration of their property. In addition to his own property, the homeowner may be subject to liability for damage occurring to neighboring properties as a result of his negligence. It is therefore important to familiarize homeowners with some guidelines for maintenance of their properties and make them aware of the importance of maintenance.

Nature slowly wears away land, but human activities such as construction increase the rate of erosion 200, even 2,000 times that amount. When we remove vegetation or other objects that hold soil in place, we expose it to the action of wind and water, and increase its chance of eroding.

The following guidelines are provided for the protection of the homeowner's investment, and should be employed throughout the year.

- (a) Care should be taken that slopes, terraces, berms (ridges at crown of slopes), and proper lot drainage are not disturbed. Surface drainage should be conducted from the rear yard to the street by a graded swale through the sideyard, or alternative approved devices.
- (b) In general, roof and yard runoff should be conducted to either the street or storm drain by nonerosive devices such as sidewalks, drainage pipes, ground gutters, and driveways. Drainage systems should not be altered without expert consultation.
- (c) All drains should be kept cleaned and unclogged, including gutters and downspouts. Terrace drains or gunite ditches should be kept free of debris to allow proper drainage. During heavy rain periods, performance of the drainage system should be inspected. Problems, such as gulying and ponding, if observed, should be corrected as soon as possible.
- (d) Any leakage from pools, waterlines, etc. or bypassing of drains should be repaired as soon as possible.
- (e) Animal burrows should be filled since they may cause diversion of surface runoff, promote accelerated erosion, and even trigger shallow soil failures.
- (f) Slopes should not be altered without expert consultation. Whenever a homeowner plans a significant topographic modification of the lot or slope, a qualified geotechnical consultant should be contacted.
- (g) If plans for modification of cut, fill, or natural slopes within a property are considered, an engineering geologist should be consulted. Any oversteepening may result in a need for

expensive retaining devices. Undercutting of the bottom of a slope might possibly lead to slope instability or failure and should not be undertaken without expert consultation.

- (h) If unusual racking, settling, or earth slippage occurs on the property, the homeowner should consult a qualified soil engineer or an engineering geologist immediately.
- (i) The most common causes of slope erosion and shallow slope failures are as follows:
  - ❖ Gross negligent of the care and maintenance of the slopes and drainage devices.
  - ❖ Inadequate and/or improper planting. (Barren areas should be replanted as soon as possible.)
  - ❖ Excessive or insufficient irrigation or diversion of runoff over the slope.
  - ❖ Foot traffic on slopes destroying vegetation and exposing soil to erosion potential.
- (j) Homeowners should not let conditions on their property create a problem for their neighbors. Cooperation with neighbors could prevent problems; also increase the aesthetic attractiveness of the property.

### WINTER ALERT

It is especially important to "winterize" your property by mid-September. Don't wait until spring to put in landscaping. You need winter protection. Final landscaping can be done later. Inexpensive measures installed by mid-September will give you protection quickly that will last all during the wet season.

- ❖ Check before storms to see that drains, gutters, downspouts, and ditches are not clogged by leaves and rubble.
- ❖ Check after major storms to be sure drains are clear and vegetation is holding on slopes. Repair as necessary.
- ❖ Spot seed any bare areas. Broadcast seeds or use a mechanical seeder. A typical slope or bare areas can be done in less than an hour.
- ❖ Give seeds a boost with fertilizer.
- ❖ Mulch if you can, with grass clippings and leaves, bark chips or straw.
- ❖ Use netting to hold soil and seeds on steep slopes.

- ❖ Check with your landscape architect or local nursery for advice.
- ❖ Prepare berms and ditches to drain surface runoff water away from problem areas such as steep, bare slopes.
- ❖ Prepare base areas on slopes for seeding by raking the surface to loosen and roughen soil so it will hold seeds.

### CONSTRUCTION

- ❖ Plan construction activities during spring and summer, so that erosion control measures can be in place when the rain comes.
- ❖ Examine your site carefully before building. Be aware of the slope, drainage patterns and soil types. Proper site design will help you avoid expensive stabilization work.
- ❖ Preserve existing vegetation as much as possible. Vegetation will naturally curb erosion, improve the appearance and value of your property, and reduce the cost of landscaping later.
- ❖ Use fencing to protect plants from fill material and traffic. If you have to pave near trees, do so with permeable asphalt or porous paving blocks.
- ❖ Minimize the length and steepness of slopes by benching, terracing, or constructing diversion structures. Landscape benched areas to stabilize the slope and improve its appearance.
- ❖ As soon as possible after grading a site, plant vegetation on all areas that are not to be paved or otherwise covered.

### TEMPORARY MEASURES TO STABILIZE THE SOIL

Grass provides the cheapest and most effective short-term erosion control. It grows quickly and covers the ground completely. To find the best seed mixtures and plants for your area, check with your local landscape architect, local nursery, or the U.S. Department of Agriculture Soil Conservation Service. Mulches hold soil moisture and provide ground protection from rain drainage. They also provide a favorable environment for starting and growing plants. Easy-to-obtain mulches are grass clippings, leaves, sawdust, bark chips, and straw.

Straw mulch is nearly 100 percent effective when held in place by spraying with an organic glue or wood fiber (tackifiers), by punching it into the soil with a shovel or roller, or by tacking a netting over it.

Commercial applications of wood fibers combined with various seeds and fertilizers (hydraulic mulching) are effective in stabilizing sloped areas. Hydraulic mulching with a tackifier should be done in two separate applications; the first composed of seed fertilizer and half the mulch, the second composed of the remaining mulch and tackifier. Commercial hydraulic mulch applicators – who also

provide other erosion control services – are listed under “landscaping” in the phone book.

Mats of excelsior, jute netting, and plastic sheets can be effective temporary covers, but they must be in contact with the soil and fastened securely to work effectively.

Roof drainage can be collected in barrels or storage containers or touted into lawns, planter boxes, and gardens. Be sure to cover stored water so you don't collect mosquitoes. Excessive runoff should be directed away from your house. Too much water can damage trees and make foundations unstable.

### STRUCTURAL RUNOFF CONTROLS

Even with proper timing and planting, you may need to protect disturbed areas from rainfall until the plants have time to establish themselves. Or you may need permanent ways to transport water across your property so that it doesn't cause erosion.

To keep water from carrying soil from your site and dumping it into nearby lots, streets, streams and channels, you need ways to reduce its volume and speed. Some examples of what you might use are:

- ❖ Riprap (rock lining) – to protect channel banks from erosive water flow.
- ❖ Sediment trap – to stop runoff carrying sediment and trap the sediment.
- ❖ Storm drain outlet protection – to reduce the speed of water flowing from a pipe onto open ground or into a natural channel.
- ❖ Diversion dike or perimeter dike – to divert excess water to places where it can be disposed of properly.
- ❖ Straw bale dike – to stop and detain sediment from small-unprotected areas (a short-term measure).
- ❖ Perimeter swale – to divert runoff from a disturbed area or to contain runoff within a disturbed area.
- ❖ Grade stabilization structure – to carry concentrated runoff down a slope.





# Planning Commission Agenda Report

ITEM NO. 5

**DATE:** April 9, 2024

**FROM:** Angelica Frausto-Lupo, Community Development Director  
Matt Chang, Planning Manager

**PREPARED BY:** Robert (Dean) Flores, Senior Planner

**SUBJECT:** **Project Nos. PLR24-0002/CUP24-0001/DRX24-0004 – A request for a Conditional Use Permit for a proposed restaurant and accessory use to serve beer and wine for on-site sale and consumption (Type 41 ABC license) at 702 Fremont Avenue (APN: 5315-002-012). The project includes an Administrative Use Permit for the proposed outdoor dining in conjunction with the restaurant and a Design Review Permit for the proposed wall signs. An Administrative Modification is required for a fence up to 8'-high on the southerly side of the property. In accordance with the California Environmental Quality Act (CEQA), this project qualifies for a Categorical Exemption under Section 15303, Class 3 (New Construction or Conversion of Small Structures).**

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## Recommendation

It is recommended that the Planning Commission adopt a Resolution:

1. Finding the project exempt under California Environmental Quality Act (CEQA) Guidelines, Section 15303, Class 3 (New Construction or Conversion of Small Structures)
2. Approving Project Nos. PLR24-0002/CUP24-0001/DRX24-0004 (Conditional Use Permit, Administrative Use Permit, Administrative Modification, and Design Review Permit) for a restaurant with on-site sale and consumption of beer and wine (Type 41 ABC License), outdoor dining, an 8'-high fence, and signage located at 702 Fremont Avenue, subject to the conditions of approval.

## Background

### Previous Approvals

On October 25, 2022, a staff-level Historic Resources Evaluation (HRE) report was approved to demolish an existing detached garage at the rear of the property located at 702 Fremont Avenue (referred to herein as the "property"). On December 22, 2023, the Planning Division approved the construction of a new detached accessory dwelling unit (ADU) at the rear of the property.

On April 25, 2023, the Public Works Department approved a tree removal/replacement permit for the removal of 11 trees and replacement of 7 trees (See Attachment 5). On June 28, 2023, the Cultural Heritage Commission (CHC) Chair approved a Minor Certificate of Appropriateness (CHC Chair Review) for exterior modifications including new windows and doors.

Project Timeline

On February 1, 2024, the applicant, Laurel Myers, on behalf of the proposed restaurant (Roost Kitchen), submitted an application for a Conditional Use Permit for a restaurant with accessory sale of beer and wine (Type 41 ABC License) for on-site sale and consumption. They also submitted an Administrative Use Permit (AUP) application for outdoor dining in conjunction with the restaurant use and a Design Review permit for the proposed signage. Lastly, an Administrative Modification was submitted to request an 8'-high wood fence on the southerly portion of the property.

On March 20, 2024, the submitted applications were deemed complete after the applicant resubmitted their project plans and supplemental information such as a revised project narrative.

**Project Description**

The applicant is requesting approval of a Conditional Use Permit (CUP) to allow for the conversion of the existing dwelling into a restaurant and for the ancillary sale of beer and wine for on-site consumption (Type 41 ABC License). The applicant is requesting outdoor dining and two wall signs as well as an 8'-high wood fence on the southerly portion of the property. The proposed alcohol is to be stored behind the cashier counter in a refrigerator. The proposed restaurant will feature 1,492 square foot interior space, having 24 interior seats. The proposed outdoor dining area on the west (front) and south sides of the restaurant will feature approximately 1,329 square feet, having assorted bench and table/chair seating. The hours of operation are from 8:00 a.m. to 4:00 p.m. daily. No alterations, except for the proposed signage, are proposed to the exterior of the building as part of this application.

**Discussion**

The project site is located on the southeastern corner of Fremont Avenue and Magnolia Street. The site currently consists of a vacant single-family residence and is in the process of getting their proposed ADU under construction. Adjacent uses within the area include residential uses to the north, east, and south while there are office uses on the west side of Fremont Avenue. The subject property is zoned in the Commercial Office (CO) zone, which allows restaurants with approval of a conditional use permit.

Surrounding Land Use Characteristics

<b>Direction</b>	<b>General Plan</b>	<b>Zoning</b>	<b>Existing Land Use</b>
<b>North</b>	Mixed-Use Core	Commercial Office (CO)	Single-family residential

<b>South</b>	Mixed-Use Core	Commercial Office (CO)	Multi-family residential
<b>East</b>	Mixed-Use Core	Commercial Office (CO)	Single-family residential
<b>West</b>	Mixed-Use Core	Commercial Office (CO)	Multi-family residential and commercial/office

**Project Analysis**

General Plan Consistency

The current General Plan land use designation of the site is Mixed-Use Core. Per the General Plan (2040), which was adopted in 2023, the Mixed-Use Core is intended to...” That said, the proposed project is consistent with the following policies and actions of the General Plan:

*Policy P2.7: Strengthen and grow the City’s retail offerings.*

*Action A2.7a: Create a retail and restaurant destination by attracting specialty stores and unique food and beverage places...*

*Action A2.7b: Seek... independent businesses that can both meet the City’s retail needs and adhere to quality design standards to seamlessly fit into a walkable urban environment.*

The proposed project supports the goals, policies, and actions of the General Plan by allowing a restaurant with ancillary beer and wine consumption. The addition of alcohol sales will not substantially affect the nature of the business, but will however, provide a new amenity for the surrounding community as the hours of operation are limited to the hours of 8:00 a.m. – 4:00 p.m. Therefore, the request is consistent with the General Plan.

Zoning Code Compliance

The subject property is located in the Commercial Office (CO) zoning district. According to Section 36.230.030, a restaurant is permitted in the CO zone with approval of a CUP. As for alcoholic beverage sales in the CO zone, in January 2021, a Community Development Director’s Interpretation No. 2021-001 (Attachment 6) allows the sale of alcohol as an accessory use to a conditionally approved restaurant. In it, it states, “accessory or ancillary Alcoholic Beverage Sales at restaurants do not create the types of peace, health, safety and welfare concerns that are often generated by bars and liquor stores, where Alcoholic Beverage Sales are the Primary Use,” (pg. 3). As such, the proposal is consistent with the Director’s Interpretation regarding the accessory use of alcoholic beverages because the primary use will be a conditionally approved restaurant.

With respect to parking requirements, the proposed restaurant is located within ½-mile from Metro’s A Line transit stop (South Pasadena Mission/Meridian Station). The A Line transit stop

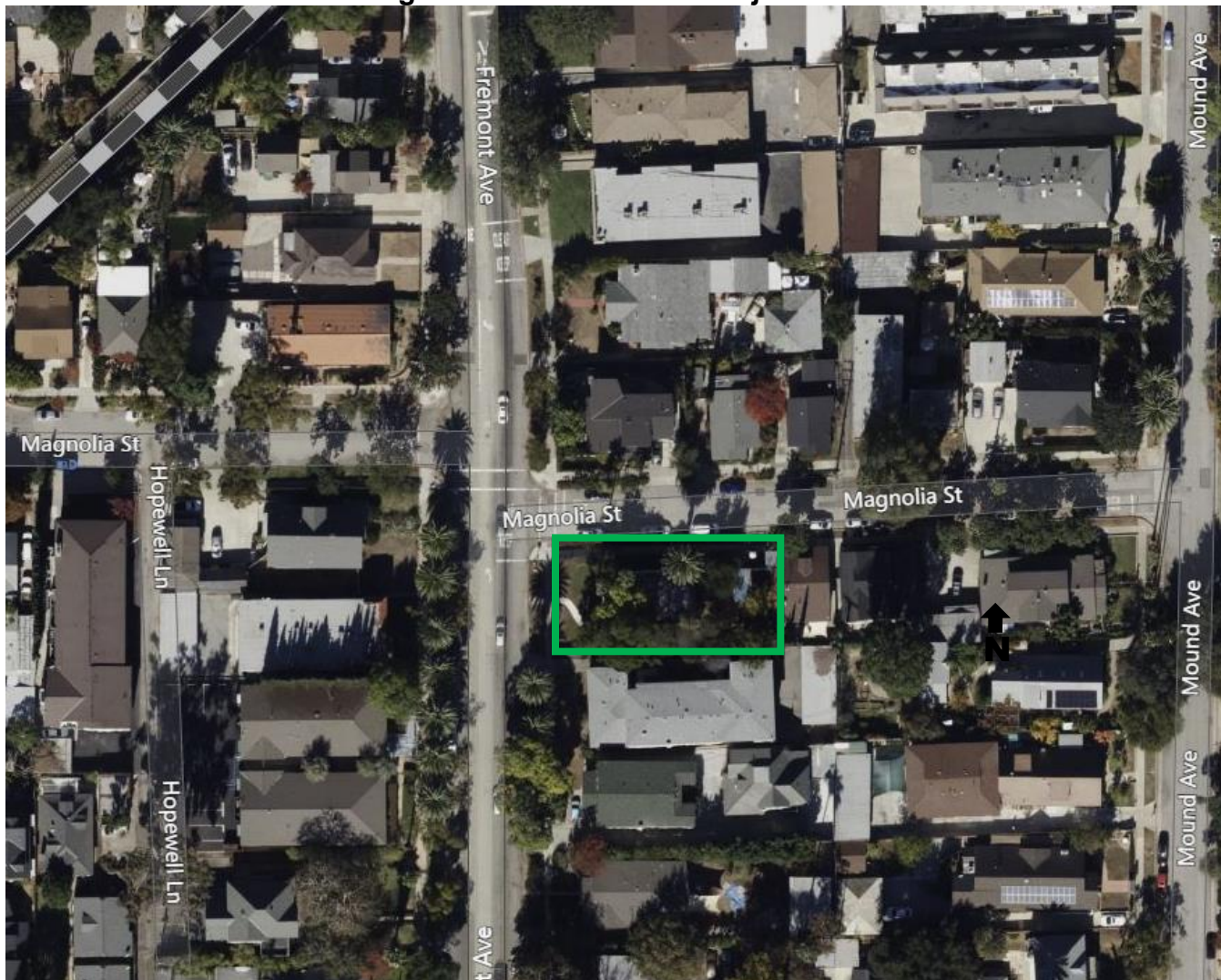
is considered a major transit stop, and it therefore exempts the project from providing any parking spaces pursuant to Assembly Bill (AB) 2097. AB 2097 is a State law that limits public agencies from imposing a minimum automobile parking requirement on most projects located within a ½-mile radius of a major transit stop. It is important to note, however, that there is street parking available adjacent to the restaurant along Fremont Avenue and Magnolia Street. Additionally, there is a public parking lot located at the southeast corner of Hope Street and Mound Avenue approximately 500 feet from the restaurant.

### Conditional Use Permit

Conditional Use Permits are intended to allow for activities whose effect on a site and its surroundings can only be determined after the review of the configuration, design, location, and potential impacts of the proposed use and the suitability of the use to the site. Pursuant to South Pasadena Municipal Code (SPMC) Section 36.410.060(D), the Planning Commission may grant a Conditional Use Permit (CUP) for any use listed in Article 2 of Chapter 36 (Zoning) as requiring a CUP. Restaurants in the CO zone are subject to a CUP pursuant to SPMC Section 36.230.030 and, therefore, would require an approval from the Planning Commission.

The proposed restaurant is designed to be a small-scale local destination for nearby patrons and residents to have breakfast or lunch. It is not designed to operate past normal operating hours, thereby limiting the operating characteristics compared to traditional sit-down restaurants. As part of the CUP application for the restaurant, the applicant proposes the sale of beer and wine for on-site consumption as an ancillary use to the main restaurant operation. An aerial image showing the location of the project site outline in green is provided in **Figure 1**. The applicant proposes the sale of beer and wine for on-site consumption to be only within the dining areas indoors and outdoors. No alcohol consumption will be allowed off-site. **Figures 2 and 3** show the floor plan with the interior dining area, and outdoor dining area, respectively, outlined in green to indicate where alcohol will be served and consumed.

Figure 1: Aerial View of Project Site





Pursuant to Sections 36.350.040 and 36.410.060 of the SPMC, the following findings and considerations are required to be reviewed for a CUP and/or alcohol sale:

36.350.040 (Considerations for approval of a CUP for alcoholic beverage establishments)

1. Whether the proposed use will result in an undue concentration of establishments dispensing alcoholic beverages.
2. The distance of the proposed use from the following:
  - a. Residential uses;
  - b. Religious facilities, schools, libraries, public parks and playgrounds, and other similar uses; and
  - c. Other establishments dispensing alcoholic beverages.
3. Whether the noise levels generated by the operation of the establishment would exceed the level of background noise normally found in the area or would otherwise be intrusive.
4. Whether the signs and other advertising on the exterior of the premises would be compatible with the character of the area.

36.410.060 (Findings for CUP approval)

1. The proposed use is allowed with Conditional Use Permit or Administrative Use Permit approval within the applicable zoning district and complies with all applicable provisions of this Zoning Code.
2. The proposed use is consistent with the General Plan and any applicable specific plan.
3. The establishment, maintenance, or operation of the use would not, under the circumstances of the particular case, be detrimental to the health, safety, or general welfare of persons residing or working in the neighborhood of the proposed use.
4. The use, as described and conditionally approved, would not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City.
5. The subject site is adequate in terms of size, shape, topography, and circumstances and has sufficient access to streets and highways which are adequate in width and pavement type to carry the quantity and quality of traffic expected to be generated by the proposed use.
6. The design, location, operating characteristics, and size of the proposed use would be compatible with the existing and future land uses in the vicinity, in terms of aesthetics, character, scale, impacts on neighboring properties.

1. Distance of Other Uses

As mentioned previously, one of the considerations for reviewing a CUP application is the distance between the subject premises and certain uses such as residential, religious facilities, schools, libraries, public parks and playgrounds, and other similar uses as well as other establishments dispensing alcoholic beverages. **Table 1** below shows the distance between the subject premises and the aforementioned uses.

**Table 1: Distance Between Premises and Closest Other Uses**

<b>Use/Business</b>	<b>Address</b>	<b>Approximate Distance</b>
Multifamily Residential	704 Fremont Avenue	30 feet
Religious Facility – Grace Brethren Church	920 Fremont Avenue	927 feet
Colonial House Preschool	1124 Mission Street	665 feet
South Pasadena Library	1100 Oxley Street	1,400 feet
Garfield Park	806 Park Avenue	1,700 feet
Tomato Pie (Alcohol establishment)	1130 Mission Street	580 feet

As shown in Table 1, the closest uses to the proposed restaurant are the multifamily residential and Tomato Pie uses at approximately 30 feet and 580 feet, respectively. Section 36.350.040 does not identify a minimum distance requirement between these uses, just that they are considered when reviewing new alcoholic beverage sales applications. Additionally, it is important to note that the operation of the restaurant, and the subsequent serving of alcohol, will take place from 8:00 a.m. to 4:00 p.m. which are the normal operating hours of the business. The restaurant is intended to operate as a local, walkable brunch destination for local residents. Thus, the approval of this CUP for on-site sales and consumption of beer and wine are typical in this type of business operation and would be consistent with the surrounding uses. Finally, the South Pasadena Police Department and Fire Department also reviewed the proposed CUP for alcohol sales and had no objections to the proposal.

2. Noise

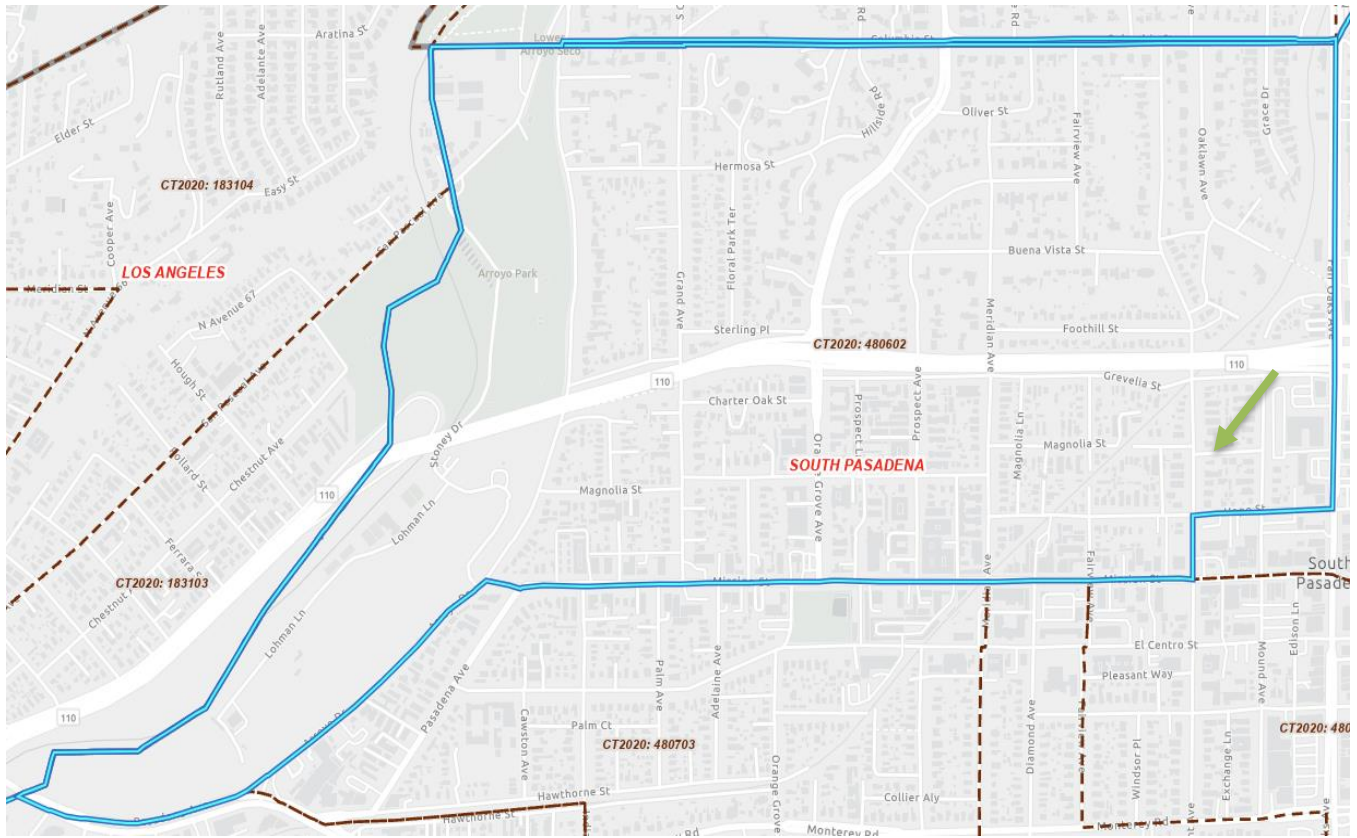
An additional consideration when reviewing a CUP application is noise. One of the areas of consideration in the proposal is the outdoor dining. In order to mitigate any potential noise impacts, the applicant has proposed a series of planters, garden walls, and an 8'-high wood fence on the south side of the property adjacent to the existing multifamily residence. And, since the restaurant is operating during normal business hours, no later than 4:00 p.m., any potential noise impacts will not detrimentally affect the quality of life of the adjacent residents. That said, a condition of approval has been included to ensure that the applicant continues to adhere to the City's Noise Ordinance pursuant to Chapter 19A of the SPMC.

3. Undue Concentration

The Department of Alcoholic Beverage Control (ABC) puts a limit on the number of on-site and off-site licenses it uses, based on the population of people within a given census tract. Roost Kitchen is located within census tract 4806.02, as illustrated in **Figure 4**. The location of the proposed restaurant within Census Tract 4806.02 is shown in Figure 4 near the green arrow.



**Figure 4: Census Tract 4806.02 Boundary**



According to the ABC Licensing Reports, Census Tract 4806.02 currently holds eight (8) active on-site licenses. **Table 2** lists businesses with an active alcohol license, derived from the ABC Licensing Report for the Census Tract 4806.02. As shown in Table 1 below, all on-sale licenses consist of either Type 41, Type 42 or Type 47 licenses which are restaurants that serve alcohol as an accessory use.

**Table 2: Active On-Sale Alcohol Licenses in Census Tract 4806.02**

Type	Business Name	Address
41 – On-Sale Beer & Wine - Eating Place	Shakers Restaurant	601 Fair Oaks Avenue
42 – On-Sale Beer & Wine – Public Premises	Mission Wine	1114 Mission Street
47 – On-Sale General Eating Place	Mike & Anne’s	1040 Mission Street
41 – On-Sale Beer & Wine - Eating Place	Radhika Modern Indian	964-966 Mission Street
41 – On-Sale Beer & Wine - Eating Place	Tomato Pie	1130 Mission Street

41 – On-Sale Beer & Wine - Eating Place	Blue Fin Sushi & Roll	960 Mission Street
41 – On-Sale Beer & Wine - Eating Place	Carrows (Closed)	815 Fremont Avenue
47 – On-Sale General Eating Place	Piccolo Pasadena	1008-1010 Mission Street
<b>TOTAL:</b>	Eight (8) On-Sale License Types	

That said, ABC authorizes a certain number of licenses to each census tract for both on-sale and off-sale licenses. In the case of Census Tract 4806.02, **Table 3** shows the number of on-sale and off-sale licenses authorized by ABC.

**Table 3: Authorized Licenses by ABC in Census Tract 4806.02**

Census Tract Population	On-sale Licenses Authorized	Off-sale Licenses Authorized
4,183	4	2

As shown in **Tables 2 and 3**, Census Tract 4806.02 already features more licenses than is currently authorized by ABC. However, Type 41 and Type 47 licenses are treated differently by ABC than other types of licenses such as Type 20 – Off-sale Beer & wine, Type 21 – Off-sale General, Type 42 – On-sale Beer & Wine (Public Premises), Type 48 – On-sale General (Public Premises), and Type 90 – On-sale General (Music Venue). In the case of Types 20, 21, 42, 48, and 90, ABC requires that the local agency determine a public convenience or necessity (PCN) is established if the applicant’s premises is 1) located in a “high crime” area based on local crime statistics and/or if the number of similar license types exceeds the limit set forth by state law (overconcentration)<sup>1</sup>. Conversely, for license Types 41 and 47, which are both for bona fide eating establishments, ABC is the responsible agency that determines if a PCN needs to be established. As a result, although this application would continue the overconcentration of this census tract, it is not a requirement for the City to determine whether a PCN needs to be established for Type 41 licenses since the serving of alcohol for a restaurant is considered an ancillary use to the primary use of the restaurant itself.

4. Signage

One of the considerations for compliance with the City’s alcoholic beverage standards concerns the compatibility of signage and other advertising with the surrounding neighborhood. The applicant is proposing two wall signs measuring 1.7 square feet located on the front yard (facing Fremont Avenue) wall and one measuring 0.8 square feet located on the front building wall. The proposed signage complies with the allowable number of signs and square footage allowed for the type of signs. Wall signs are limited to 1 square foot for each foot of linear frontage. As demonstrated, the proposed signage does not exceed the requirement as the proposed signs are relatively small. Additionally, the proposed signs will not be illuminated. As such, the

<sup>1</sup> Taken from Section 7 from ABC’s website here: <https://www.abc.ca.gov/abc-520/>

proposed signage will not adversely affect the surrounding neighborhood which will ensure compatibility with the surrounding.

### 5. Departmental Review

The South Pasadena Police Department, Fire Department, and Community Development Department Building Division have reviewed the proposed CUP submittal and have no objections to the proposed project. The recommended conditions of approval have been included for each department/division. Conditions of approval are included for appropriate sound mitigations, prohibiting loitering on the property, restricted hours of operation, and required training for employees who will serve alcohol to ensure that the on-site sale and consumption of alcohol would not be detrimental to the community.

### Administrative Use Permit

An AUP is required for outdoor dining in conjunction with a restaurant in the CO zoning district pursuant to Section 36.350.130 of the SMPC. As shown in Figure 3, the proposed outdoor dining area consists of approximately 1,329 square feet located along the west (front) and south sides of the building. The outdoor dining area will feature a mix of chair and bench seating which will accommodate approximately 40 seats.

The overall design of the outdoor dining area will be compatible with the site and surrounding uses as it will be a series of landscaping, planters, and wood patio decking (See Attachment 4 – Renderings). The area is split into two different sections – the front patio area and the south patio area. The front patio area features an upper pad and lower pad with garden walls and landscaping separating the two areas. The south patio area will feature a mix of bench and traditional seating and will also include a new wood dining patio similar to the upper pad of the front patio area. There will be no outdoor (string) lighting as the operating hours will cease at 4:00 p.m.

### Administrative Modification

An Administrative Modification is a process that allows a modification of certain development standards due to special circumstances of the property including shape, size, surroundings, topography, or other conditions. Administrative Modifications are typically reviewed and decided by the Director of Community Development. However, since the proposed Administrative Modification is included as part of the CUP project, the Planning Commission is the review authority on the overall project. As part of this proposal, the applicant is requesting an Administrative Modification to allow for an 8'-high fence on the southerly portion of the property. This is because there is a grade difference between the two properties which would make a standard 6'-high fence too short to adequately buffer any potential noise impacts. As such, an 8'-high fence would ensure neighborhood compatibility in this circumstance.

### Design Review

The purpose of the Design Review process is to ensure that the proposed site layout and building design are suitable and compatible with the City’s development and design standards. In this case, the applicant is proposing signage consisting of two wall signs, one located at the front wall within the front property line and one on the front building wall. Design Review permits for signage are typically reviewed and decided by the Design Review Board. However, similarly to the proposed Administrative Modification, since the Design Review permit is included as part of the CUP project, the Planning Commission is the review authority on the overall project. **Table 4** below shows how the proposed signage complies with the sign development standards of Section 36.320.070 of SMPC.

**Table 4: Sign Development Standards for Wall Signs**

	<b>Allowed</b>	<b>Proposed</b>
Number of Signs Allowed	3 of any combination of allowed sign type per <i>primary</i> building frontage.	Only wall signs are proposed for primary frontage.
	1 of any combination of allowed sign type per <i>secondary</i> building frontage.	No secondary building frontage is being proposed.
Maximum Sign Area	<ul style="list-style-type: none"> <li>1 sq. ft. per each linear foot of building frontage</li> <li>No more than 200 sq. ft. allowed for each use</li> <li>Not to exceed 7% of the building façade</li> </ul>	The total sign area for both signs is approximately 2.5 square feet.
Sign Location	<ul style="list-style-type: none"> <li>Not project above the eave line or the edge of the roof of a building</li> <li>Not to interfere with the operation of a window or door</li> <li>At least 1 foot below the top of the parapet</li> </ul>	Signs meet the sign location criteria.
Sign Projection	Does not project more than 12 inches from the building surface	1 inch
Maximum Logo & Letter Height	No limit if it doesn’t exceed the allowable area	1’ in diameter for building wall sign 1’-6” for front wall sign
Maximum Sign Length	No limit if it doesn’t exceed the allowable area	1’ in diameter for building wall sign 1’-6” for front wall sign

## **Environmental Analysis**

This project is exempt from California Environmental Quality Act (CEQA) analysis based on State CEQA Guidelines Section 15303, Class 3 – New Construction or Conversion of Small Structures. A Class 3 Categorical Exemption includes the conversion of existing small structures where only minor modifications are made. Since the proposed project includes the conversion of an existing single-family residence into a restaurant with no expansion of the existing structure, no significant environmental effects would result from this project and the use of a categorical exemption is appropriate.

## **Project Findings**

In order to approve a CUP, AUP, Administrative Modification, and Design Review permit, the Planning Commission must make certain findings listed in the SPMC. The required findings are included in P.C. Resolution No. 24-XX (Attachment 1).

## **Staff Recommendation**

Based on the above analysis, staff recommends that the Planning Commission adopt a Resolution:

1. Finding the project exempt under California Environmental Quality Act (CEQA) Guidelines, Section 15303 (Class 3).
2. Approving Project No. PLR24-0002/CUP24-0001/DRX24-0004 (Conditional Use Permit, Administrative Use Permit, Administrative Modification, and Design Review) for a restaurant with on-site sale and consumption of beer and wine (Type 41 License), outdoor dining, an 8'-high fence, and signage located at 702 Fremont Avenue, subject to the conditions of approval.

## **Alternatives to Consider**

If the Planning Commission does not agree with staff's recommendation, the following options are available:

1. The Planning Commission can Approve the project as is or with modified condition(s) added or removed and provide findings; or
2. The Planning Commission can Continue the project, providing the applicant with clear recommendations to revise the proposal; or
3. The Planning Commission can Deny the project if it finds that the project does not meet the City's requirements.

### **Public Notification of Agenda Item**

A Public Hearing Notice was published on March 29, 2024, in the *South Pasadena Review*. Hearing notices were sent to all properties within a 300-foot radius on March 28, 2024. In addition, the public was made aware that this item was to be considered at a public hearing by virtue of its inclusion on the legally publicly noticed agenda, and the posting of the same agenda and reports on the City's website. No comment letters were received at the time of the posting of the agenda and reports.

### **Next Steps**

If the Planning Commission approves the project, a 15-day appeal period will commence in which any person affected by the decision may appeal the decision for a public hearing by the City Council. Should there be no appeals during this 15-day period, the applicant may proceed through the Plan Check Process with the Building Division and staff will review the construction plans to ensure that all conditions are satisfied.

### **Attachments**

1. P.C. Resolution with Exhibit "A" – Conditions of Approval
2. Project Narrative
3. Architectural Plans
4. Renderings
5. Tree Removal/Replacement Approval Letter
6. Director's Interpretation No. 2021-001 for Alcohol Sales as Accessory Use in the CO zone

**ATTACHMENT 1**

P.C. RESOLUTION NO. 24-\_\_

Exhibit A – Conditions of Approval

**P.C. RESOLUTION NO. 24-\_\_**

**A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF SOUTH PASADENA CONDITIONALLY APPROVING PROJECT NOS. PLR24-0002/CUP24-0001/DRX24-0004 CONSISTING OF A CONDITIONAL USE PERMIT FOR A PROPOSED RESTAURANT AND ACCESSORY USE TO SERVE BEER AND WINE FOR ON-SITE SALE AND CONSUMPTION (TYPE 41 ABC LICENSE) AT 702 FREMONT AVENUE (APN: 5315-002-012), AN ADMINISTRATIVE USE PERMIT FOR THE PROPOSED OUTDOOR DINING IN CONJUNCTION WITH THE RESTAURANT, A DESIGN REVIEW PERMIT FOR TWO WALL SIGNS, AND AN ADMINISTRATIVE MODIFICATION FOR A FENCE UP TO 8'-HIGH ON THE SOUTHERLY SIDE OF THE PROPERTY, AND MAKING A DETERMINATION OF EXEMPTION UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

**WHEREAS**, on February 1, 2024, Laurel Myers (applicant), submitted an application (Conditional Use Permit (“CUP”), Administrative Use Permit (“AUP”), Administrative Modification, and Design Review permit) for a restaurant with on-site sale and consumption of beer and wine (Type 41 ABC License), outdoor dining, an 8'-high wood fence, and signage located at 702 Fremont Avenue (Assessor’s Parcel Number: 5315-002-012); and

**WHEREAS**, the proposed project is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to 15303, Class 3 – New Construction or Conversion of Small Structures; and

**WHEREAS**, the Planning Division evaluated the project for consistency with the City’s General Plan, South Pasadena Municipal Code, and all other applicable state and local regulations; and

**WHEREAS**, on March 28, 2024, the public hearing notice was mailed to each property owner within a 300-foot radius of the project site in accordance with the requirements of South Pasadena Municipal Code declaring the project review by the Planning Commission for the hearing on April 9, 2024; and

**WHEREAS**, on March 29, 2024, the City of South Pasadena Planning Division, published a legal notice in the *South Pasadena Review*, a local newspaper of general circulation, indicating the date, time, and location of the public hearing in compliance with state law concerning Project Nos. PLR24-0002/CUP24-0001/DRX24-0004; and

**WHEREAS**, the South Pasadena Planning Commission held a duly noticed public hearing on April 9, 2024, at which time it considered the staff report, oral report, the testimony, and the written evidence submitted by and on behalf of the applicant and by members of the public concerning Project Nos. PLR24-0002/CUP24-0001/DRX24-



0004 and considered the proposed Conditional Use Permit for a restaurant and the on-site sale and consumption of beer and wine (Type 41 ABC License) as an accessory use, Administrative Use Permit for outdoor dining in conjunction with the restaurant, Administrative Modification for an 8'-high wood fence, and a Design Review permit for two wall signs located at 702 Fremont Avenue.

**NOW, THEREFORE, THE PLANNING COMMISSION OF THE CITY OF SOUTH PASADENA DOES HEREBY FIND, DETERMINE, AND RESOLVE AS FOLLOWS:**

**SECTION 1: ACKNOWLEDGEMENTS**

The foregoing recitals are true and correct and are incorporated and made an operative part of this resolution.

**SECTION 2: ENVIRONMENTAL REVIEW FINDING**

The Planning Commission has determined that the proposed project is Categorically Exempt from the provisions of the California Environmental Quality Act (CEQA), under Section 15303, Class 3 – New Construction or Conversion of Small Structures of the California Guidelines for Implementation of CEQA. A Class 3 Categorical Exemption includes the conversion of existing small structures where only minor modifications are made. Since the proposed project includes the conversion of an existing single-family residence into a restaurant with no expansion of the existing structure, no significant environmental effects would result from this project and the use of a categorical exemption is appropriate.

**SECTION 3: CONDITIONAL USE PERMIT AND ADMINISTRATIVE USE PERMIT FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings for approval of a Conditional Use Permit for a restaurant and alcohol sales and Administrative Use Permit for outdoor dining pursuant to South Pasadena Municipal Code (SPMC) Section 36.410.060, as follows:

- 1. The proposed use is allowed with Conditional Use Permit or Administrative Use Permit approval within the applicable zoning district and complies with all applicable provisions of this Zoning Code;**

The project site is zoned Commercial Office (CO) which is intended for the use of professional offices, business support services, restaurants, and other specialty retail uses. A restaurant is permitted in the CO zone with approval of a Conditional Use Permit. The proposed Conditional Use Permit for sale of beer and wine for on-site consumption (Type 41 ABC License) as an ancillary use to the main restaurant operation is allowed in conjunction with a conditionally approved restaurant

according to a Community Development Director's Interpretation No. 2021-001. The proposed CUP for a restaurant meets all the standards in the underline zoning district and meets all applicable zoning standards for alcoholic beverage sales concerning undue concentration, distance between surrounding uses, adherence to the City's noise standards and signage standards.

Regarding the Administrative Use Permit for outdoor dining, the proposed outdoor dining area consists of 1,329 square feet featuring two separate areas – the front patio area and side patio area. The overall design of the outdoor dining area will be compatible with the site and surrounding uses as it will be a series of landscaping, planters, and wood patio decking (See Attachment 4 – Renderings). The front patio area features an upper pad and lower pad with garden walls and landscaping separating the two areas. The south patio area will feature a mix of bench and traditional seating and will also include a new wood dining patio similar to the upper pad of the front patio area. There will be no outdoor (string) lighting as the operating hours will cease at 4:00 p.m. As such, the proposed layout complies with all applicable provisions of the Zoning Code.

**2. The proposed use is consistent with the General Plan and any applicable specific plan.**

The current General Plan land use designation of the site is Mixed-Use Corridor. Per the General Plan (2040), the Mixed-Use Corridor is intended to..." That said, the proposed project is consistent with the following policies and actions of the General Plan:

*Policy P2.7: Strengthen and grow the City's retail offerings.*

*Action A2.7a: Create a retail and restaurant destination by attracting specialty stores and unique food and beverage places...*

*Action A2.7b: Seek... independent businesses that can both meet the City's retail needs and adhere to quality design standards to seamlessly fit into a walkable urban environment.*

The proposed project supports the goals, policies, and actions of the General Plan by allowing a restaurant with ancillary beer and wine consumption. The addition of alcohol sales will not substantially affect the nature of the business, but will however, provide a new amenity for the surrounding community as the hours of operation are limited to the hours of 8:00 a.m. – 4:00 p.m. Therefore, the request is consistent with the General Plan.

**3. The establishment, maintenance, or operation of the use would not, under the circumstances of the particular case, be detrimental to the health, safety, or general welfare of persons residing or working in the neighborhood of the proposed use.**

The proposed restaurant use and sale of beer and wine for on-site consumption as an accessory use is reasonable given the restaurant's proposed operating hours. As conditioned, the sale of beer and wine will be limited to hours of operation and all alcohol orders will be in conjunction with food orders. The restaurant's hours of operation are from 8:00 a.m. to 4:00 p.m., seven days a week. Nevertheless, various departments have reviewed this project and conditions are also imposed to ensure the proposed use is not detrimental to the health, safety, or general welfare of the general public.

**4. The use, as described and conditionally approved, would not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City.**

Approval of the Conditional Use Permit, as conditioned, would not be detrimental or injurious to the property and improvements in the neighborhood or to the general welfare of the City. Conditions of approval are included requiring no loitering on the property, and required training for employees who will serve alcohol to ensure that the sales of alcohol would not be detrimental to the community.

The proposal meets all the standards as described in the SPMC for alcohol sales. Therefore, the proposed use would not be detrimental or injurious to property and improvements in the neighborhood or the general welfare of the City.

**5. The subject site is adequate in terms of size, shape, topography, and circumstances and has sufficient access to streets and highways which are adequate in width and pavement type to carry the quantity and quality of traffic expected to be generated by the proposed use.**

The proposed restaurant and accessory request for on-site beer and wine sales (Type 41 ABC License) does not involve any expansion to the size of the existing building or any roadway modifications. The proposed restaurant is designed to be a local and walkable destination for nearby residents. Because the proposal does not require any parking spaces, no modifications to the site regarding access are being proposed. That said, there is street parking and a public parking lot in the vicinity to accommodate the expected patrons. Therefore, the subject site can adequately and sufficiently provide access to streets and highways to carry the quantity and quality of traffic generated by the proposed use.

**6. The design, location, operating characteristics, and size of the proposed use would be compatible with the existing and future land uses in the vicinity, in terms of aesthetics, character, scale, impacts on neighboring properties.**

The proposed Conditional Use Permit is compatible with existing land uses within the vicinity, including similar restaurant uses in the area. No alterations, excluding the proposed signage, are proposed to the exterior of the building as a part of this project. There are other site improvements such as new ground patios, landscaping, and fences and walls to ensure there will be adequate noise buffering to adjacent

neighbors. Therefore, the design, location, operating characteristics, and size of the proposed use would be compatible with the existing and future land use in the vicinity in terms of aesthetics, character, scale, and impacts.

#### **SECTION 4: ADMINISTRATIVE MODIFICATION FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings for approval of An Administrative Modification for an 8'-high fence pursuant to South Pasadena Municipal Code (SPMC) Section 36.410.070, as follows:

- 1. Approval of the Administrative Modification would not be detrimental to the public health, interest, safety, or general welfare and would not be detrimental or injurious to property or improvements in the vicinity and in the same zoning district.**

The proposed Administrative Modification to allow an 8'-high fence on the southerly portion of the subject property would not be detrimental to the public health, interest, safety, or general welfare and would not be detrimental or injurious to property or improvements in the vicinity and in the same zoning district. The SPMC allows for fences and walls up to 8' high with approval of an Administrative Modification. In this case, the proposed 8'-high wood fence is being requested due to the grade difference between the subject property and the multi-family residential property adjacent to the south. Additionally, an 8'-high fence would allow for a form of noise buffering to ensure no adverse effects on the neighboring property.

- 2. The subject property is physically suitable to accommodate the improvements granted by the Administrative Modification.**

The proposed restaurant is designed to be a local and walkable destination for nearby residents. Because the proposal does not require any parking spaces, no modifications to the site regarding access are being proposed. That said, there is street parking and a public parking lot in the vicinity to accommodate the expected patrons. The proposed Administrative Modification for an 8'-high fence would not negatively affect the physical site improvements.

- 3. The Administrative Modification is consistent with the General Plan and any applicable specific plan, the limitations established by the 1983 City of South Pasadena initiative, and the general purposes and intent of this Section, including the requirements of the applicable zoning district.**

As shown in the Conditional Use Permit findings above, the overall project is consistent with the City's General Plan, including the proposed 8'-high fence. The subject property is not located in any specific plan area and is not applicable to 1983

City of South Pasadena initiative. Furthermore, Section 36.410.070 allows for a fence up to 8'-high with approval of an Administrative Modification which is usually reviewed by the Community Development Director. Therefore, the Administrative Modification is consistent with the general purposes and intent of Section 36.410.070.

## **SECTION 5: DESIGN REVIEW FINDINGS**

Based upon the entire record made available at the April 9, 2024 public hearing, including the public hearing, the staff report, the oral presentation, and related documents submitted to the Planning Commission prior to and at the public hearing, the Planning Commission finds and determines that the proposed project is consistent with all applicable findings for approval of a Design Review permit for signage pursuant to South Pasadena Municipal Code (SPMC) Section 36.410.040, as follows:

- 1. Is consistent with the General Plan, any adopted design guidelines and any applicable design criteria for specialized areas (e.g., designated historic or other special districts, plan developments, or specific plans)**

The project site has a General Plan land use designation as Mixed-Use Core, which allows for restaurant use, and subsequently, signage in conjunction with the use. The proposed signage includes two wall signs – one located on the building wall and the other located on the front property wall facing the street. As demonstrated in the staff report, the sign type, location, and size comply with the applicable design criteria.

- 2. Will adequately accommodate the functions and activities proposed for the site, will not unreasonably interfere with the use and enjoyment of neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards.**

Signage is an integral part of any business as a form of wayfinding for potential customers. The proposed signs, measured at 1.7 square feet and 0.8 square feet, are relatively small and will not unreasonably interfere with the use and enjoyment of neighboring, existing, or future developments, and will not create adverse pedestrian or traffic hazards \*.

- 3. Is compatible with the existing character of the surrounding neighborhood and that all reasonable design efforts have been made to maintain the attractive, harmonious, and orderly development contemplated by this section and the General Plan.**

The existing character of the surrounding neighborhood consists of primarily residential uses with an office building located across the street along Fremont Avenue. The project proposes to create a small-scale restaurant as an attractive amenity in the surrounding neighborhood. The proposed signage will create an attractive, harmonious, and is in keeping with orderly development as contemplated by this City's design review regulations, and the General Plan \*.

4. **Would provide a desirable environment for its occupants and neighbors, and is aesthetically of good composition, materials, and texture that would remain aesthetically appealing with a reasonable level of maintenance and upkeep.**

The project proposes to add signage that complements the proposed restaurant \*. Thus, the signage will add to a more desirable environment for its clientele, the neighborhood, and is aesthetically of good composition, materials, and texture that would remain aesthetically appealing with a reasonable level of maintenance and upkeep.

#### **SECTION 6: RECORD OF PROCEEDING**

The documents and other materials that constitute the record of the proceedings upon which the Planning Commission's decision is based, which include, but are not limited to, the staff reports, as well as all materials that support the staff reports for the proposed project, and are located in the Community Development Department of the City of South Pasadena at 1414 Mission Street, South Pasadena, CA 91030. The custodian of these documents is the City Clerk of the City of South Pasadena.

#### **SECTION 7: DETERMINATION**

Based upon the findings outlined in Sections 2 through 5 above and provided during the public hearing, the Planning Commission of the City of South Pasadena hereby conditionally approves Project Nos. PLR24-0002/CUP24-0001/DRX24-0004 consisting of a Conditional Use Permit for a restaurant and the on-site sale and consumption of beer and wine (Type 41 ABC License) as an accessory use, AUP for outdoor dining in conjunction with the restaurant, Administrative Modification for an 8'-high fence, and a Design Review permit for two wall signs located at 702 Fremont Avenue, subject to the Conditions of Approval attached hereto as Exhibit "A."

#### **SECTION 8: APPEALS**

Any interested person may appeal this decision or any portion of this decision to the City Council. Pursuant to the South Pasadena Municipal Code, any such appeal must be filed with the City, in writing, and with appropriate appeal fee, no later than (15) days, following the date of the Planning Commission's final action.

#### **SECTION 9: CERTIFICATION OF THE RESOLUTION**

The Secretary shall certify that the foregoing Resolution was adopted by the Planning Commission of the City of South Pasadena at a duly noticed regular meeting held on the 9<sup>th</sup> day of April 2024.

**PASSED, APPROVED, AND ADOPTED** this 9<sup>th</sup> day of April 2024 by the following vote:

**AYES:**

**NOES:**

**ABSENT:**

**ABSTAIN:**

---

Lisa Padilla, Planning Commission Chair

**ATTEST:**

---

Mark Gallatin, Secretary to the Planning Commission



**EXHIBIT "A"**  
**CONDITIONS OF APPROVAL**  
**PROJECT NOS. PLR24-0002/CUP24-0001/DRX24-0004**  
**702 Fremont Avenue, (APN: 5315-002-012)**

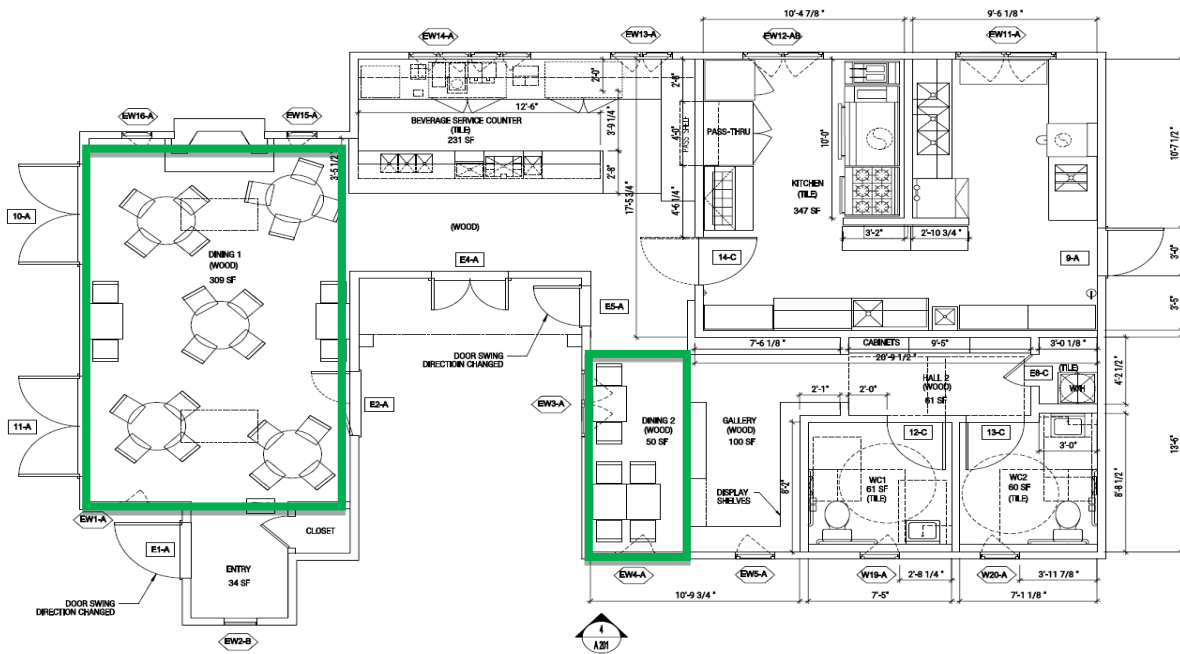
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**PLANNING DIVISION:**

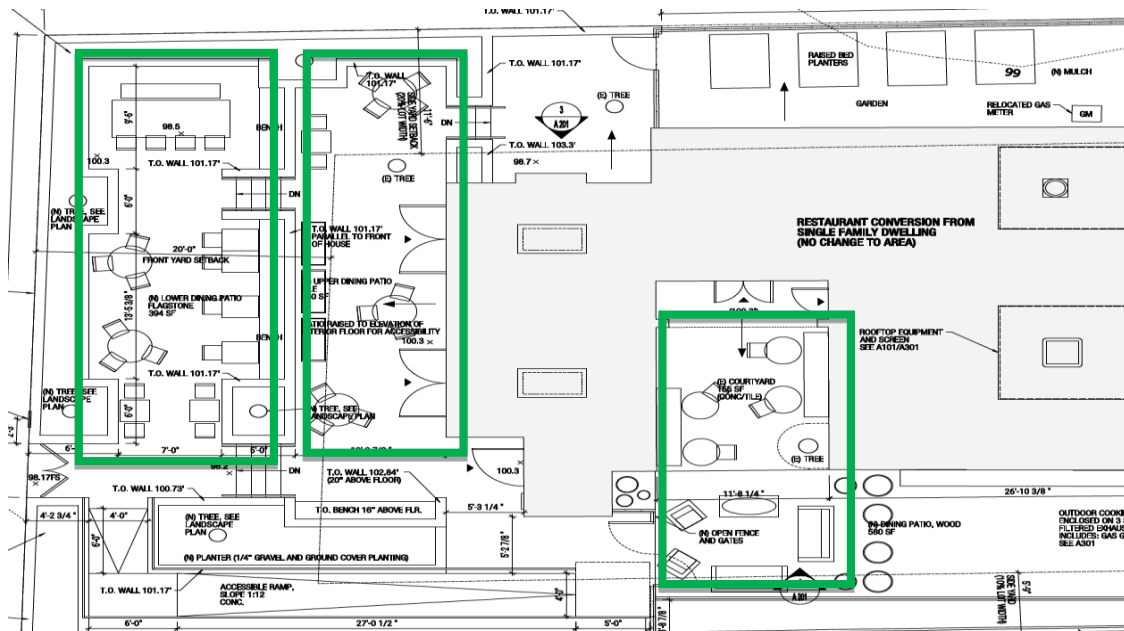
- P-1. The following approvals are granted as described below and as shown on the development plans submitted to and approved by the Planning Commission on April 9, 2024:
- A. **Conditional Use Permit** for a restaurant use and the sale of beer and wine for on-site consumption at a bona fide restaurant (Type 41 ABC License), as an accessory use,
  - B. **Administrative Use Permit** for outdoor dining in conjunction with a restaurant,
  - C. **Administrative Modification** to allow a fence on the southerly portion of the subject site up to 8' high,
  - D. **Design Review** permit for 2 wall signs.
- P-2. This approval and all rights hereunder shall terminate within twelve (12) months of the effective date of their approval by the Planning Commission unless otherwise conditioned and/or unless action is taken to secure building permits and maintain active building permits with the Building Division beginning with the submittal of the plans for plan check review. The on-sale beer and wine license (Type 41) shall be acquired by the California Department of Alcoholic Beverage Control (ABC) prior to the termination period.
- P-3. Approval by the Planning Commission does not constitute a building permit. No structural modifications were proposed as part of this CUP request.
- P-4. All other requirements of any law, ordinance, or regulation of the State of California, City of South Pasadena, and any other government entity shall be complied with.
- P-5. Compliance with and execution of all appropriate conditions listed herein shall be necessary prior to obtaining any occupancy inspection clearance and/or prior to obtaining any occupancy clearance.
- P-6. The applicant and each successor in interest to the property which is the subject of this project approval, shall defend, indemnify and hold harmless the City of South Pasadena and its agents, officers and employees from any claim, action or proceeding against the City or its agents, officers or employees to attack, set aside, void or annul any approval of the City, City Council or Planning Commission concerning this approval. In the event of any claim or lawsuit, the applicant and/or successor shall submit a deposit in such amount as the City reasonably determines necessary to protect the City from exposure to fees, costs or liability with respect to such claim or lawsuit.
- P-7. Compliance with the City's Performance Standards of Section 36.300.110, which also include the Noise Standards (Chapter 19A), of the South Pasadena Municipal Code (SPMC) shall be adhered to at all times.
- P-8. The proposed restaurant and sale of beer and wine shall be limited to the hours of operation from 8 a.m. to 4 p.m. daily.
- P-9. Modification of hours of operation shall require review and approval from the Planning Commission.
- P-10. No sale or consumption of beer and wine shall be permitted until the customer/s have been seated.
- P-11. The sale of beer and wine for on-site consumption shall only be incidental to the operation of the restaurant. Sale of alcohol for off-site consumption within the restaurant shall be prohibited.
- P-12. Quarterly gross sales of alcohol shall not exceed quarterly gross sales of food within the restaurant. Quarterly records shall be maintained to separately reflect gross sales of food and gross sales of beer and wine and shall be made available to the City of South Pasadena upon request.
- P-13. The restaurant premises shall be continuously maintained as a bona fide eating establishment, and shall provide a menu containing an assortment of foods typically offered in restaurants.
- P-14. No advertising for alcoholic beverages may be displayed in store windows or outside of the store.

- P-15. All alcohol sales cases/displays shall be located in such a manner to prevent “grab-and-run” thefts of alcohol. The sales cases/displays shall be located in sight of the sales counter at all times, if possible.
- P-16. The employees who will be engaged in the sale of alcohol must complete the State Alcoholic Beverage Control’s mandated training, as well as the store’s internal training on the sale of alcohol.
- P-17. The consumption of beer and wine shall be permitted only within the restaurant as outlined in green in **Figures 1 and 2.**

**Figure 1: Indoor Dining Area Floor Plan**



**Figure 2: Outdoor Dining Area Floor Plan**



- P-18. Any individuals discovered loitering on the property shall immediately be informed to leave the premises, by the owner. Should the owner fail to abate the problems, the South Pasadena Police Department and/or other enforcement agencies reserve the right to take appropriate enforcement actions to abate the problem, and the permit/alcohol licenses may be subject to revocation.
- P-19. The store management shall regulate the arrival and departure of all employees and restrict the "late hour" use of the exit for trash removal and unnecessary opening. Adequate security measures shall be instituted to eliminate any unauthorized access.
- P-20. The Conditional Use Permit issued and a copy of the conditions of approval for the permit shall be displayed on the premises of the establishment in a place where it may readily be viewed by any member of the general public.
- P-21. The installation of mechanical equipment shall be screened from the public right-of-way.
- P-22. The hours of construction shall be limited to the following: from 8:00 am to 7:00 pm Monday through Friday, from 9:00 am to 7:00 pm on Saturday, and from 10:00 am to 6:00 pm on Sunday.
- P-23. A construction sign with contact information for the contractor shall be clearly posted on-site during construction.
- P-24. Any proposed revision to the approved plans shall require review and approval by the Community Development Department prior to construction.

**BUILDING DIVISION:**

- B1. The second sheet of building plans is to list all conditions of approval and to include a copy of the Planning Commission Decision letter. This information shall be incorporated into the plans prior to the first submittal for plan check.
- B2. Plans prepared in compliance with the current Building Code shall be submitted to Building Division for review prior to permit issuance.
- B3. Fees shall be paid to the County of Los Angeles Sanitation District prior to issuance of the building permit.
- B4. A separate address from the ADU is required. An application to assign address and unit numbers shall be filed with Public Works Department prior to plan check submittal.
- B5. In accordance with paragraph 5538(b) of the California Business and Professions Code, plans are to be prepared and stamped by a licensed architect.
- B6. Structural calculations prepared under the direction of an architect, civil engineer or structural engineer shall be provided.
- B7. A grading and drainage plan shall be approved prior to issuance of the building permit. The grading and drainage plan shall indicate how all storm drainage including contributory drainage from adjacent lots is carried to the public way or drainage structure approved to receive storm water.
- B8. Preliminary MS4 Project Application (MS4-1 FORM) completed by Engineer of Record shall be copied on the first sheet of Building Plans and on the first sheet of Grading Plans. The form can be found at the following link <https://www.dropbox.com/scl/fi/chxsvdnb9u6uuxb25ua76/SP-MS4-1-LID-Determination-Form.pdf?rlkey=d7q43dh29lurp3ma1g4acbote&dl=0>
- B9. Redevelopment project with land disturbing activity, when considering the ADU and the restaurant conversion as one project, that would result in the replacement of 5,000 square feet or more of impervious surface area on an already developed site on Planning Priority Project categories shall comply with LID

requirements per City Ordinance.

- B10. All State of California disability access regulations for accessibility and shall be complied with.
- B11. Approval is required from the Los Angeles County Health Department for restaurants.
- B12. Additions, alterations, repairs and changes of use or occupancy in all buildings and structures shall comply with the provisions for new buildings and structures except as otherwise provided in the California Existing Building Code in effect.
- B13. Separate application and plan review is required for Electrical plans.
- B14. Separate application and plan review is required for Mechanical plans.
- B15. Separate application and plan review is required for Plumbing plans.
- B16. Plumbing fixtures shall be provided as required by the Chapter 4 of the California Plumbing Code. Toilet facilities of A-2 occupancy shall be designed to have separate facilities for each sex and shall have at least one urinal for male per Section 422.1 and 422.2. Additional fixtures may be required if not in compliance.
- B17. Project shall comply with the CalGreen Non-Residential mandatory requirements.
- B18. Fire-resistance rating requirements for exterior walls based on fire separation distance of 5 to 10 feet measured between the restaurant and the ADU shall comply with Table 705.5 of the Building Code.
- B19. Maximum area of exterior wall openings and degree of open protection based on fire separation distance of 5 to 10 feet shall comply with Table 705.8 of the Building Code.
- B20. The existing interior raised floor as well as the new exterior deck shall be evaluated or designed to resist the live load of 100 psf minimum per Table 1607.1 of the Building Code. Retrofitting or strengthening the existing interior floor as required.
- B21. Existing roof or new exterior deck designed to support new mechanical equipment shall be evaluated or designed to resist the assumed design loads. Retrofitting or strengthening the existing roof as required.
- B22. An occupant load analysis shall be provided for exterior deck used for outdoor dining and shall comply with means of egress requirements per Section 1004. of the Building Code. The occupant load may be cumulative if conditions per Section 1004.2 exist in the project.
- B23. Exterior stairways provided to facilitate circulation shall meet the accessibility requirements regarding handrail extension per Section 11B-505 as well as the minimum egress width per Section 1011.2 of the Building Code. Handrail extensions shall not obstruct the clearance required for means of egress and accessibility compliance.
- B24. Exterior exit stairways and ramps as an element of means of egress shall comply with Section 1026 and 1027 of the Building Code. Exterior exit stairways and ramps shall have a minimum fire separation distance of 10 feet measured at right angles from the exterior edge of the stairway or ramps, including landings, to adjacent lot line per Section 1027.5.
- B25. A separate permit is required for the site retaining walls.
- B26. All fire sprinkler hangers must be designed, and their location approved by an engineer or an architect. Calculations must be provided indicating that the hangers are designed to carry the tributary weight of the water filled pipe plus a 250-pound point load. A plan indication this information must be stamped by the engineer or the architect and submitted for approval prior to issuance of the building permit.

B27. Separate permit is required for Fire Sprinklers

**FIRE DEPARTMENT:**

- FD1. Required Code References: Current South Pasadena Municipal Code (SPMC); 2022 California Fire Code (CFC); 2022 California Building Code; Title 19 and applicable NFPA fire standards.
- FD2. Fire Sprinklers are required per California Fire Code. Submit plans to City for approval.
- FD3. Provide a Water Flow Test from City of South Pasadena Water Department at time of submittal along with fire sprinkler plans.
- FD4. An automatic sprinkler system shall be provided throughout buildings and portions thereof use as Group A occupancies.
- FD5. A 13D fire sprinkler system is required for this project. Ensure this sprinkler system is installed by an approved C-16 licensed company. The applicant shall provide a drawing of the sprinkler system to the Fire Department prior to beginning of work.
- FD6. Water Supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with Health and Safety Code Section 13114.7.
- FD7. Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.
- FD8. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method or Appendix B.
- FD9. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system.
- FD10. A fire alarm system is required to be provided and install for this project. Submit plans to City for approval.
- FD11. A Knox box shall be provided in install in accordance with California Fire Code.
- FD12. Address Identification. New and existing buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Where required by the fire code official, address numbers shall be provided in additional approved locations to facilitate emergency response. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall be a minimum of 4 inches (101.6 mm) high with a minimum stroke width of 0.5 inch (12.7 mm). Where access is by means of a private road and the building can not be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address numbers shall be maintained.
- FD13. Notwithstanding anything else in this code, or any other code incorporated, herein, by reference any new roof shall be of Class "A" roof material.
- FD14. Buildings under construction shall meet the condition of "Chapter 33 Fire Safety During Construction and Demolition" of the 2022 California Fire Code. Structures under construction, alteration or demolition, shall be provided with no less than one 2A10BC fire extinguisher as follows:
- a. At each stairway on all floor levels where combustibles materials have accumulated.

- b. In every storage and construction shed.
- c. Where special hazards exist included, but not limited to, the storage and use of combustible and flammable liquids.

FD15. A set of plans must remain on the job site at all times. Appointments for inspections should be made at least two days in advance of required inspection by calling the Fire Department at (626) 403-7304.

FD16. The City of South Pasadena Fire Department reserves the right to change or otherwise modify requirements based upon receiving additional project information or other unforeseen circumstances.

**PUBLIC WORKS DEPARTMENT:**

PW1. Required The applicant shall obtain City approval for any modifications or revisions to the approval of this project. Deviations not identified on the plans may not be approved by the City, potentially resulting for the project to be redesigned/resubmitted.

PW2. The applicant shall pay all applicable City fees including Public Works Department plan review fee and permit fees per the current adopted Master Fee Schedule, which can be found on the City's website. This includes all costs incurred by the Public Works Department for the use of professional services or consultants in the review, investigation, and/or plan check of the public improvement plans. The applicant shall provide receipts of all applicable fees paid prior to submitting plans for review.

PW3. Fremont Avenue shall be photographed and video recorded before the start of construction and after construction for assessing the damage caused to the street by construction related activity. The applicant will be responsible to restore the public right-of-way to its original condition and to the satisfaction of the City Engineer. These video recordings and photographs shall be submitted to the City before the project approval and immediately upon completion of the project.

PW4. Prior to issuance of a permit, the applicant shall perform a video inspection of the existing sewer lateral for obstructions and remove any obstructions observed. Provide a copy of the inspection video of the cleared pipe for review.

- a. The applicant shall install new 4" thick sidewalk with maximum cross slope of 2% conforming to the current Standard Plans for Public Works Construction (SPPWC) Std Plan 112-2. Concrete shall be class 520-C-2500 and shall conform to the current Standard Specifications for Public Works Construction (SSPWC).
- b. The applicant shall remove and replace the existing driveway approach with/install a new driveway approach conforming to the current Standard Plans for Public Works Construction (SPPWC) Std Plan 110-2, Type B. Concrete shall be class 520-C-2500 and shall conform to the current Standard Specifications for Public Works Construction (SSPWC). The applicant shall verify the width with the Planning Department and the actual limits of concrete removal with the Public Works Department.

PW5. The applicant shall replace all broken, damaged, or out-of-grade sidewalk and driveway approaches, and repaint all curb markings along the perimeter of the property to the satisfaction of the City Engineer regardless of when or how such condition originally occurred per SPMC Section 31.54. All improvements within the public right-of-way shall conform to the current Standard Specifications for Public Works Construction (SSPWC) and Standard Plans for Public Works Construction (SPPWC).

- a. The applicant shall install new 4" thick sidewalk with maximum cross slope of 2% conforming to the current Standard Plans for Public Works Construction (SPPWC) Std Plan 112-2. Concrete shall be class 520-C-2500 and shall conform to the current Standard Specifications for Public Works Construction (SSPWC).
- b. The applicant shall remove and replace the existing driveway approach with/install a new driveway approach conforming to the current Standard Plans for Public Works Construction (SPPWC) Std Plan 110-2, Type B. Concrete shall be class 520-C-2500 and shall conform to the current Standard Specifications for Public Works Construction (SSPWC). The applicant shall verify the width with the Planning Department and the actual limits of concrete removal with the Public Works

Department.

- PW6. The applicant shall contact the City of South Pasadena Water Operations Manager, Victor Magana, [VMagana@SouthPasadenaCA.gov](mailto:VMagana@SouthPasadenaCA.gov) for the fire flow test. The applicant shall submit water demand calculations to the City for potable water and fire (if applicable). The calculations will be used to verify the adequacy of the existing water meter connection for the proposed structure and Fire Department approved fire sprinkler system (if applicable). The applicant shall coordinate with the Water Operations Manager the size, location and the associated fee for the installation of a new water meter connection.
- PW7. Provide an arborist report and clear site plan of what trees are being removed. Submit a design narrative with the arborist report explaining why certain trees are being removed and what alternative options were considered to preserve the existing trees.
- PW8. Show all existing and proposed trees, including size and species, and indicate their disposition. If any trees (12" in diameter or greater and/or native trees) are to be removed, apply for a tree removal permit with the Public Works Department per City Ordinance No. 2328 amending Section 34.10 of SPMC. See SPMC Section 34.12 for the required information and process for the trees that are proposed to be removed and/or impacted during construction. Replacement trees shall be planted per SPMC Section 34.12-5. If existing trees are to remain on site, the applicant shall note on the plans methods of protecting existing trees during construction.
- PW9. The applicant shall include the following information on the plans:
- a. The 24-hour emergency contact number for the applicant and contact information of all utility agencies involved/impacted/potentially impacted by this project on the title sheet of the plans.
  - b. The location of all existing utilities on adjacent street(s), as well as the location and size of all existing or proposed utilities serving the property. Show all utility points of connection (POC).
  - c. Show the location and area of trench sections for any proposed sewer and water line connections within the public right-of-way. Provide a trench restoration detail per City standards if any new utility connections are proposed.
- PW10. The applicant shall add the following notes on the plans:
- a. The proposed building structure shall not be constructed within critical root zone area of any trees. For native and protected species, use the tree trunk's diameter measured at breast height (DBH) (X5) as the minimum critical root mass. For non-native and protected species, use the tree's DBH (X3) as the minimum critical root mass.
  - b. Any construction activity that may require roadway or lane closures where two-way traffic cannot be accommodated will require a traffic control plan prepared by a CA licensed civil or traffic engineer or a C-31 licensed contractor to be submitted for review. Safe pedestrian access, including ADA and bicycle, must be maintained at all times. All street closures will require an encroachment permit from the Public Works Department. Street closures are only allowed between 9:00 am and 3:00 pm. Whenever there will be a street closure exceeding thirty minutes in duration, the applicant shall provide written notification about the street closure to all impacted businesses and residents at least 48 hours in advance of the street closure.
  - c. No overnight storage of materials or equipment within the public right-of-way shall be permitted. Temporary bins (low boy), if used, shall be "roll off" style to be provided by Athens Services. Athens Services has an exclusive agreement with the City for the provision of trash removal services: only Athens dumpsters can be used. Any dumpsters placed on the roadway shall require a protective barrier underneath (such as plywood) to protect the pavement. The applicant shall obtain dumpster permit from the Public Works Department.
  - d. The applicant shall obtain oversize/overload permits from the Public Works Department for any oversized equipment used during the stages of construction, including, but not limited to: demolition; clearing and grubbing; grading; material disposal; drilling for piles and/or caissons; trenching for footings; excavation for retaining walls; core sampling of soils; etc.
  - e. The applicant shall obtain an encroachment permit from the Public Works Department for any work proposed within the public right-of-way.

**ATTACHMENT 2**

Project Narrative



## 702 FREMONT/ROOST RESTAURANT PROJECT NARRATIVE

702 Fremont Avenue is a 7125 square foot parcel located at the south east corner of Fremont Avenue and Magnolia Street. The parcel is located within the Mixed Use Core and is zoned for CO/Commercial Office uses. The property is currently occupied by a 1,492 square foot single family residence that was built in 1922 and has been unoccupied and allowed to fall into a state of disrepair in recent years.

The Ahn family purchased the property in 2021 with a vision for rehabilitating the now derelict 1920s Spanish style house and its surrounding garden and converting it into “The Roost”, a warm and welcoming neighborhood restaurant for the surrounding community. The Ahn family’s restaurant experience extends back nearly 45 years with restaurants in Atwater and Beverly Hills and more recently to South Pasadena. Over the last decade their restaurants Mike & Anne’s and Communal have become much loved community mainstays.

The Roost will be a family effort helmed by the Ahn’s mother Anne (of Mike & Anne’s) joined by her daughters Mimi and Kyle. The Roost is a culmination of Anne’s decades of restaurant experience and love of cooking and feeding people and will feature an Asian/Korean menu of food close to her heart with tastes that are new yet familiar. The Roost will have an elegantly casual and family friendly vibe with an affordable menu. It will be a neighborhood place with anticipated opening hours of 8 to 4 where people out for a morning walk can stop in for coffee and extending into the afternoon for leisurely al fresco lunches on the planned new patios surrounded by a landscape of new and existing trees and native plantings.

The existing house will be carefully renovated to house the Roost so that its 1920s historic charm is preserved. Windows on the front façade will be replaced with pairs of wood French doors with true divided lights that can be thrown open in welcome when the weather is pleasant. These minor planned alterations to the existing exterior of the house have been reviewed and approved in a Cultural Heritage Commission Chair Review. The exterior of The Roost will have smooth troweled white stucco walls and terra cotta barrel tiles at the visible areas of the roof. Signage and exterior lighting will be subtle and low key as indicated in the drawings and in an oil rubbed bronze finish with a warm brown patina.

The gardens surrounding The Roost and its outdoor dining areas are intended to evoke the inviting feel of a home garden, incorporating olive, oak, and pepper trees for shade with potted citrus trees, and borders of herbs and flowers with a focus on native and drought tolerant plants. Teak top tables and sage green slatted dining chairs will contribute to the classic California garden atmosphere. Quiet jazz and classical music at low volume are planned as a background until the end of lunch service. The Roost is planned as a daytime space so exterior lighting will be residential in feel and limited to a simple wall light located adjacent to the front door.

It is anticipated that The Roost will employ three kitchen staff and three food runners to provide service in addition to the owners. Any deliveries to the restaurant requiring larger size trucks can be made to The Roost’s sister restaurants Mike & Anne’s or Communal and transferred on to The Roost by van. The Roost is likely to be a walking destination for many of its patrons, but those who choose to drive will be able to find parking on the street or in the City’s lot a block away.

The Ahns are requesting two Conditional Use Permits to bring their vision for the Roost to fruition. The first is for Restaurant Use which is allowable in the CO Zone with a Conditional Use Permit. The second is for Beer and Wine Sales for onsite consumption as Accessory to Restaurant Use which may be permitted in the CO Zone per a Director's Interpretation.

We believe that the necessary findings can be made to allow both of these uses. The site is located on Fremont two blocks from Mission Street and is part of the Mixed Use Core identified in the updated General Plan where such uses are appropriate and consistent with the goals of the General Plan. The repair and adaptive re-use of the existing house will be of benefit to the residents and workers in the surrounding neighborhoods and to the community at large. What has been an eyesore will become an asset that can be enjoyed both by patrons and passers by. The Roost location is easily accessible by vehicle, but it is anticipated that it will be a walking destination for many of its patrons from surrounding residential and commercial neighborhoods. The existing structure which will not be expanded is smaller in scale than many of its CO zone neighbors which range mostly from multi family residential structures to larger office buildings. Once restored to its original 1920s charm and surrounded by inviting gardens, The Roost will provide a welcome bridge in terms of aesthetics, character and scale between the adjacent neighborhoods of historic single family houses to the the North and the multi family residences, Mission Street businesses and the likely future increased density along the Fair Oaks Corridor. The sale of beer and wine in conjunction with food service within this context should not be detrimental in any way to the welfare of the neighbors or the community at large.

We are hoping that the Planning Commission will approve the two Conditional Use Permits so that the Ahns can achieve their dream of restoring 702 Fremont and its surrounding gardens and opening The Roost.

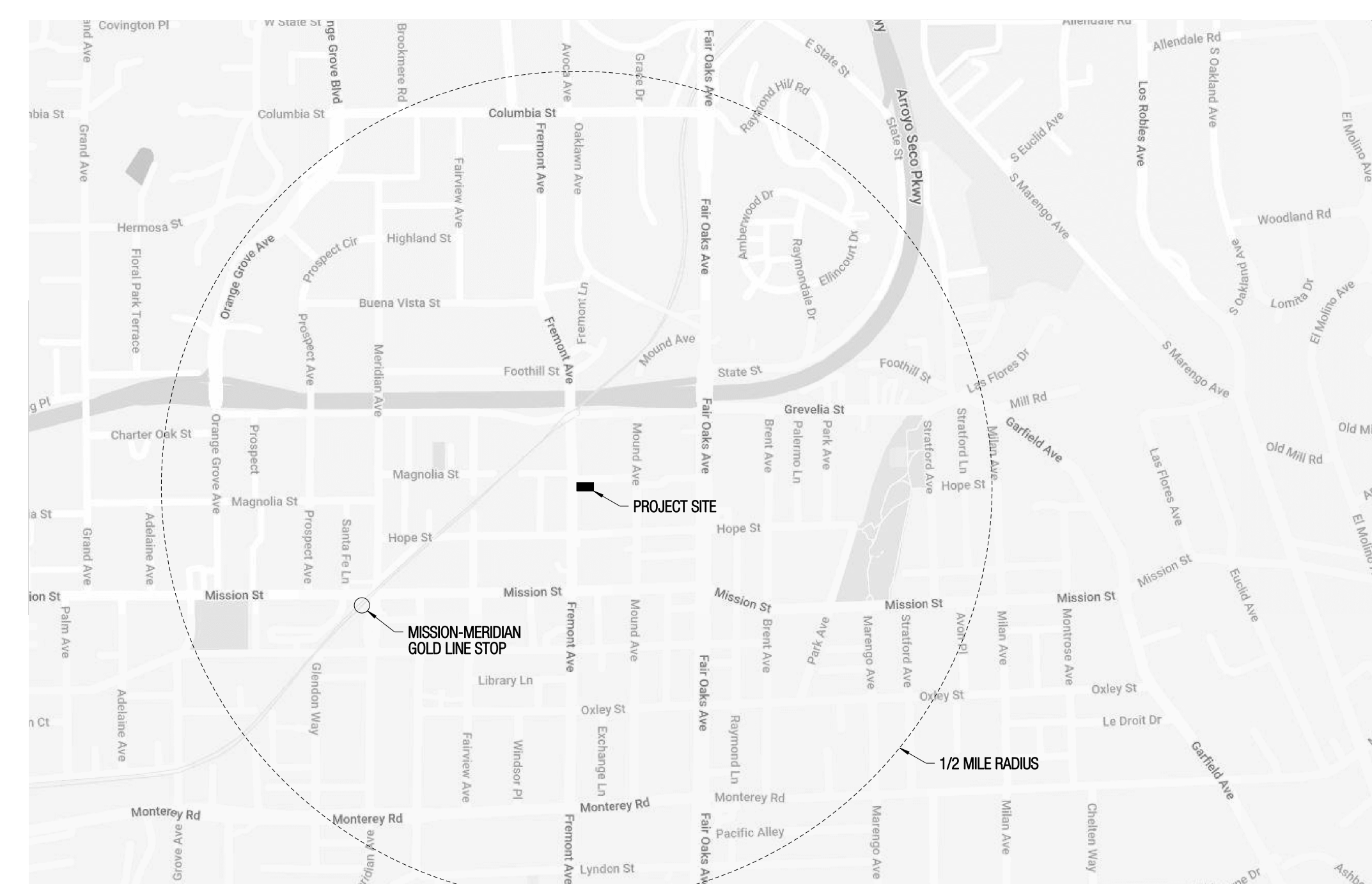
# **ATTACHMENT 3**

## Architectural Plans

# SYMBOL LEGEND

Detail	Detail Number	
	Sheet Number	
Exterior Elevation	Elevation Number	
	Sheet Number	
Interior Elevation	Elevation Number	
	Sheet Number	
Building Section	Section Number	
	Sheet Number	
Partition Type		
Room Number	Room name	
Revision Number		
Key Note		
North Arrow		
Window/ Glass/ Mirror Tag - Number		
Door Tag		
Casework Tag		
Property Line		
Projection or Soffit		
Center/Grid Line		
Break Line		
New Dimension	0'-0"	
Existing Dimension	(0'-0")	

# VICINITY MAP



PROJECT LOCATION:  
702 Fremont Avenue  
South Pasadena, CA 91030

# SHEET INDEX

Sheet Number	Sheet Name
A 001	PROJECT INFO
A 010	SURVEY
A 011	DEMO PLAN
A 020	LANDSCAPE PLAN
A 025	SIGNAGE AND LANDSCAPE
A 030	SITE PLAN
A 101	FLOOR AND ROOF PLANS
A 201	BUILDING ELEVATIONS
A 210	SITE ELEVATIONS
A 301	SECTIONS
A 601	SCHEDULES

# PROJECT DIRECTORY

**OWNER:**  
Kyle Ahn/Pil Rai Ahn  
923 S Mansfield Ave.  
Los Angeles CA 90036

**Mailing Address:**  
Mimi Ahn 1231 Cordova Ave., Glendale CA 91207

**ARCHITECT:**  
Warren Office for Research and Design  
Christopher Warren  
3620 Shoreheights Dr.  
Malibu, CA 90265  
+1 (310) 463-7137

**STRUCTURAL ENGINEER:**  
TY Engineering and Design  
952 Manhattan Beach Blvd., Suite 260  
Manhattan Beach, CA, 90266  
(310) 935-0060

# PROJECT INFORMATION

**PROJECT ADDRESS:** 702 FREMONT AVE  
SOUTH PASADENA, CA 91030

**APN:** 5315-002-012

**ZONE:** CO

**EXISTING USE:** R-3

**PROPOSED USE:** A-2 RESTAURANT

**STRUCTURE AREAS**

**EXISTING BUILDING AREAS:**

R-3 SINGLE FAMILY DWELLING	1,492 SF
GARAGE (TO DEMO)	183 SF

**PROPOSED STRUCTURE AREAS:**

A-2 RESTAURANT CONVERSION	1,492 SF (NO CHANGE)
FRONT YARD HARDSCAPE/PATIO	1,762 SF
WOOD PATIOS	826 SF
ADU (SEPARATE PERMIT)	746 SF

**NOTE:** ADU PERMIT WILL INCLUDE GARAGE DEMOLITION

**PROPOSED DINING AREAS:**

INTERIOR DINING	359 SF
FRONT PATIO - LOWER	394 SF
FRONT PATIO - UPPER	350 SF
COURTYARD	155 SF
SOUTH PATIO	430 SF

# PROJECT SCOPE

PROPOSED CONVERSION OF AN EXISTING 'SINGLE FAMILY DWELLING' TO 'RESTAURANT' (NO CHANGE TO AREA). NEW WOOD PATIOS TO BE USED FOR SERVICE AND DINING. NEW HARDSCAPED/LANDSCAPED FRONT PATIO ALSO TO BE USED FOR DINING. THE PROPERTY WILL BE MADE FULLY ACCESSIBLE WITH THE ADDITION OF AN ACCESS RAMP AND RAISED PATIO TO MATCH INTERIOR FLOOR ELEVATION AND ACCESSIBLE RESTROOMS. THE PROPERTY WILL ALSO INCLUDE A FULL-SERVICE KITCHEN, BEVERAGE SERVICE AREA AND EXTERIOR COOKING AREA.

# OCCUPANT LOADS

USE	AREA	LOAD FACTOR	OCCUPANTS	REQUIRED EXITS
A-2 RESTAURANT	359 SF	15 SF NET	24	1
A-2 OUTDOOR DINING LOWER FRONT PATIO	394 SF		27	1
A-2 OUTDOOR DINING UPPER FRONT PATIO	350 SF	200 SF GROSS	24	1
A-2 OUTDOOR DINING COURTYARD AND SOUTH PATIO	585 SF		39	1
COMMERCIAL KITCHEN	347 SF	200 SF GROSS	2	1
OUTDOOR KITCHEN	292 SF		2	1

# APPROVALS AND PERMITS

- 10/25/2022 HRE APPROVAL FOR EXISTING GARAGE DEMOLITION: PROJECT 22-123 SHRE
- 12/22/2023 ADU PLANNING PRELIMINARY APPROVAL, SUBJECT TO APPROVAL OF TREE REMOVAL/REPLACEMENT PLAN: PROJECT 22-87 ADU
- 4/25/2023 TREE REMOVAL/REPLACEMENT PLAN APPROVAL: PUBLIC WORKS TENTATIVE APPROVAL (SEE 4/A025)
- 6/28/2023 PLANNING STAFF AND CHC CHAIR APPROVAL, PER 23-65, FOR CERTIFICATE OF APPROPRIATENESS REGARDING PROPOSED MODIFICATIONS
- 7/18/2023 BUILDING PERMIT APPLICATION FOR ADU ONLY (SEPARATE PERMIT) SP-B55248 (CURRENTLY UNDER REVIEW)



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Los Angeles CA 90036

**Architect** Warren Office for Research and Design  
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**Struct. Eng.** TY Engineering and Design  
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+1 (310) 935-0060



**ISSUES / REVISIONS:**

DATE	SYM	DESCRIPTION
02/21/2024		PLANNING CUP REVIEW
03/19/2024		PLANNING CUP REVIEW

THE ROOST  
702 FREMONT AVE  
SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

PROJECT INFO

# A 001

Owner: Kyle Ahn/Pil Rai Ahn  
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THE ROOST  
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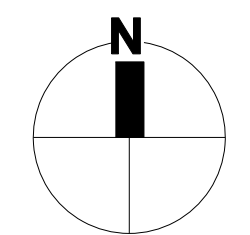
RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

SURVEY

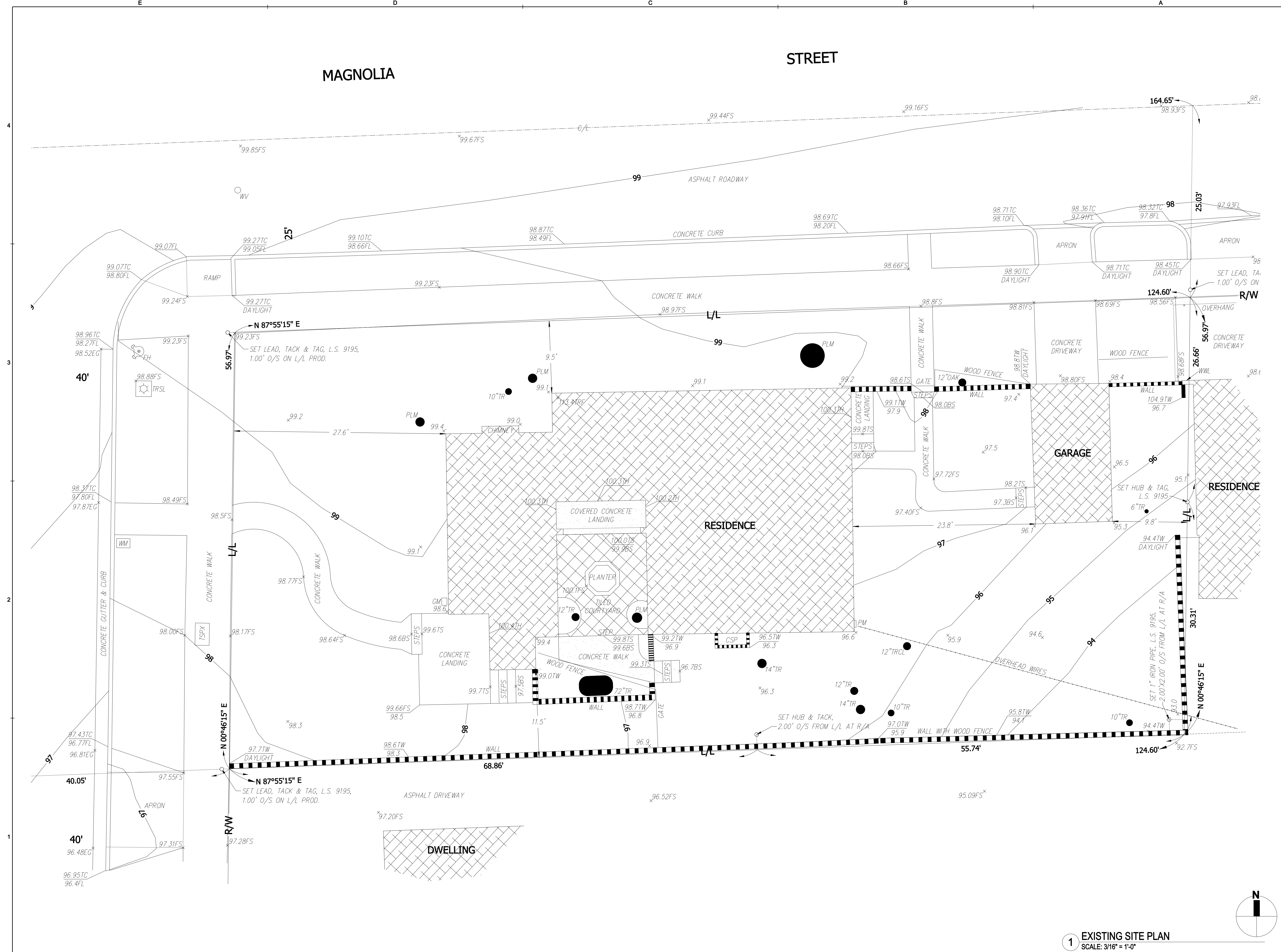
# A 010

1 EXISTING SITE PLAN  
SCALE: 3/16" = 1'-0"



## MAGNOLIA

## STREET



4  
3  
2  
1

Owner  
Architect  
Struct. Eng.

Owner Kyle Ahn/Pil Rai Ahn  
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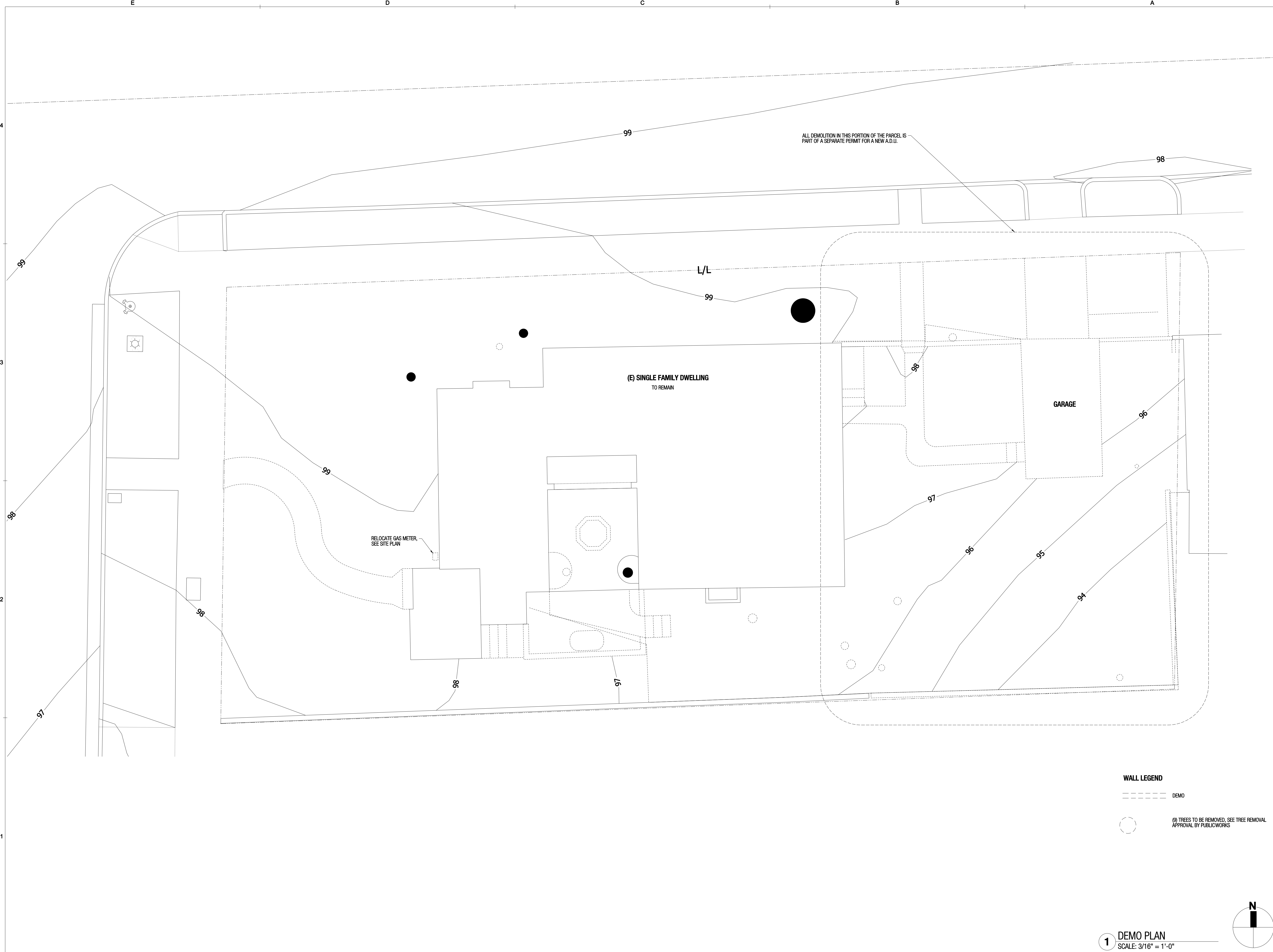
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**WALL LEGEND**  
- - - - - DEMO  
○ TREES TO BE REMOVED, SEE TREE REMOVAL APPROVAL BY PUBLICWORKS

THE ROOST  
702 FREMONT AVE  
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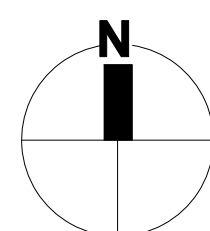
RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

DEMO PLAN

# A 011

1 DEMO PLAN  
SCALE: 3/16" = 1'-0"



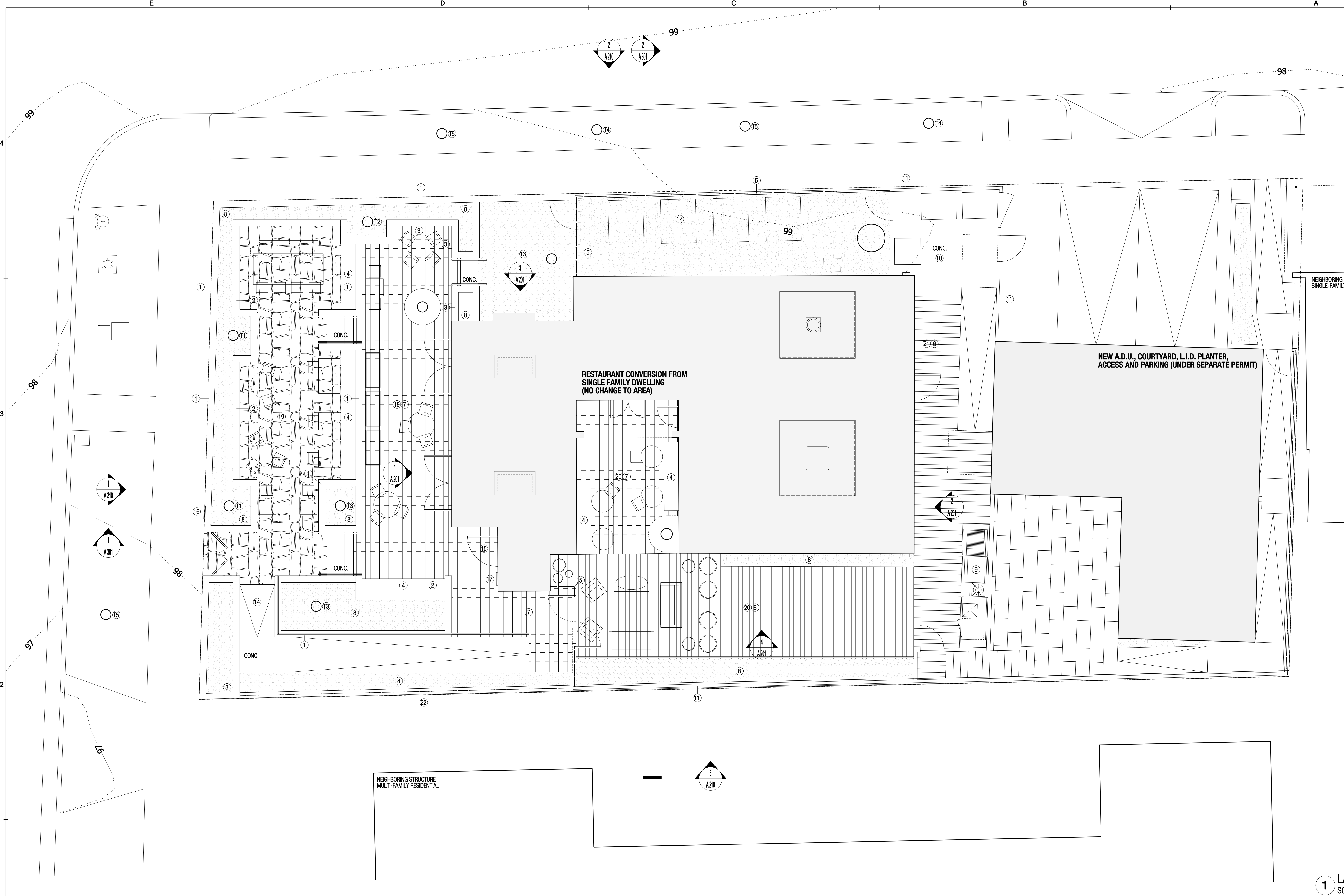
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**1** LANDSCAPE PLAN  
 SCALE: 3/16" = 1'-0"

**KEYNOTES**

- ① GARDEN WALL, 36" HIGH PLASTER OVER CMU, SMOOTH TROWEL HEIGHT TAKEN ABOVE ADJACENT GRADE. T.O. WALL TO REMAIN LEVEL
- ② GARDEN WALL, 20" HIGH PLASTER OVER CMU, SMOOTH TROWEL HEIGHT TAKEN ABOVE ADJACENT GRADE. T.O. WALL TO REMAIN LEVEL
- ③ GARDEN WALL, 12" HIGH PLASTER OVER CMU, SMOOTH TROWEL MATCH HEIGHT OF ADJACENT WALL. T.O. WALL TO BE LEVEL
- ④ BENCH, WOOD OVER CONCRETE 16" HIGH, 20" DEEP
- ⑤ 6" HIGH FENCE AND GATES (OPEN TO VIEW), PAINTED STEEL FRAME WITH 4" PAINTED STEEL GRID INFILL
- ⑥ WOOD PLANKS, SPECIES T.B.D.
- ⑦ PORCELAIN TILE W/ WOOD GRAIN PATTERN, TO MATCH INTERIOR FLOOR APPEARANCE
- ⑧ PLANTER BED, SEE PLANTING LIST, SHEET A025, FOR SUGGESTED TYPES

- ⑨ OUTDOOR COOKING STATION
- ⑩ SERVICE AREA, LOADING, TRASH ENCLOSURE
- ⑪ 8" MAX. HEIGHT (ABOVE ADJOINING GRADE) WOOD FENCE (NOT OPEN TO VIEW), AT ADU, FENCE HEIGHT TO BE 6" HIGH, MAX.
- ⑫ RAISED PLANTER BOXES (30" H)
- ⑬ HERB GARDEN
- ⑭ ACCESSIBLE RAMP
- ⑮ MAIN ENTRY
- ⑯ SIGN, PAINTED STEEL PLATE, 18" DIA., SEE 1/A025

- ⑰ SIGN, PAINTED STEEL PLATE, 12" DIA., SEE 2/A025
- ⑱ UPPER FRONT DINING AREA, FULLY ACCESSIBLE TO RESTAURANT INTERIOR
- ⑲ LOWER FRONT DINING AREA, ACCESSIBLE TO RESTAURANT INTERIOR VIA RAMP, NEUTRAL TONE FLAGSTONE PAVING
- ⑳ SOUTH DINING PATIO AND COURTYARD, FULL ACCESS TO RESTAURANT INTERIOR
- ㉑ SERVICE PATIO, FULLY ACCESSIBLE
- ㉒ STEEL AND WIRE GRID FENCE (OPEN TO VIEW) OVER EXISTING CMU WALL (12" H) PAINTED STEEL FRAME WITH 4" PAINTED STEEL GRID INFILL. TOTAL HEIGHT MAX. 3' ABOVE GRADE

**TREES LIST**

- FOLLOWING A PUBLIC NREC MEETING, THE FOLLOWING TREES HAVE BEEN TENTATIVELY APPROVED FOR PLACEMENT IN THE PARCEL, AS STATED IN A LETTER REGARDING "TREE REMOVAL AND REPLACEMENT APPLICATION" ON APRIL 24, 2023 FROM LAEGONNA DEWITT, SOUTH PASADENA PUBLIC WORKS ASSISTANT.
- ⑪ 'CALIFORNIA PEPPER', 24" BOX, DROUGHT TOLERANT
  - ⑫ 'FRUITLESS OLIVE', 24" BOX, DROUGHT TOLERANT
  - ⑬ 'DESERT WILLOW', 24" BOX, NATIVE SPECIES
  - ⑭ 'BLUE OAK' (QUERCUS DOUGLASSI), 36" BOX, NATIVE SPECIES
  - ⑮ EXISTING STREET TREE

THE ROOST  
 702 FREMONT AVE  
 SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

**LANDSCAPE PLAN**



CITY OF SOUTH PASADENA

1414 MISSION, SOUTH PASADENA, CA 91030  
TEL: 626.403.7241 • FAX: 626.433-7240  
WWW.SOUTHPASADENA.CA.GOV

April 24, 2023

Kyle and Mimi Ahn  
702 Fremont Avenue  
South Pasadena, CA 91030

Re: Tree Removal/Replacement Application

After reviewing your application, it has been determined to grant you a tentative approval for the removal of eleven (11) trees, including one mature oak and one significant jacaranda located on the property subject to the following conditions:

1. The tree removal permit will be granted upon approval of the building permit, as per the South Pasadena Municipal Code (SPMC) Chapter 34.10(a)(5). A tree removal permit must be obtained prior to scheduling any work to remove or transplant a tree. This tentative approval is **exclusively** for the tree removal process and is not to be construed as Project approval.

2. Based on the size of the trees and species, the applicant is required to replace with seven (7) trees prior to project final.

3. As per the SPMC 34.10(a)(5), a deposit in the amount of \$2,345 (\$335 per tree) for the required replacement trees, in an amount sufficient to cover the cost of all required replacement trees, as determined by the city's arborist.

If you have any questions, please feel free to contact me at 626-403-7240.

Sincerely,

Leonora DeWitt  
Public Works Assistant

cc: H. Ted Gerber, Public Works Director  
Catrina Peguero, Public Works Operations Manager



5 TREE REMOVAL/REPLACEMENT APPROVAL  
SCALE: NTS

FREMONT GARDEN PLANTING PALETTE

Selection of pollinator-friendly, drought tolerant plants, mostly native and perennial. Focus on texture and bloom persistence for cut arrangements. Further selection to be made for size and garden placement.

HERBACEOUS

- Yarrow (*Achillea millefolium*)
- Coreopsis
- Agastache
- Milkweeds (*Asclepias tuberosa*, *A. californica*)
- Evening primrose (*Oenothera sp.*)
- Russian sage (*Perovskia atriplicifolia*)
- Poppy mallows, desert mallow
- Lavender
- Lavender cotton (*Santolina chamaecyparissus*)
- Creeping thyme, woolly thyme
- Scarlet bugler (*Fenestemon centranchifolius*) or CA fuchsia (*Epilobium canum*)
- Lady's mantle (*Alchemilla mollis*)
- Catalina currant (*Ribes viburnifolium*) - TP; fragrant foliage groundcover
- Silver lupine (*Lupinus albus*)
- Fennel
- Lantana
- Marigold
- Nasturtium
- Amaranth
- Allium
- Cosmos
- Strawflowers
- Poppy anemone
- Sea lavender
- Rosemary
- Prairie smoke (*Geum triflorum*)

SUCCULENT

- Yucca (*Hesperoyucca whipplei*)
- Sedum

GRASSES

- Purple three-awn grass (*Aristida purpurea*)
- Blue Fescue (*Festuca ovina glauca*)
- Indian Ricegrass (*Oryzopsis hymenoides*)
- Canyon prince wild rye (*Leymus condensatus 'Canyon Prince'*)

SHRUBS

- Coffeeberry
- Leucadendron
- Calycanthus
- Matija poppy
- Currants (*Ribes spp.*)
- Fragrant sumac (*Rhus trilobata*)
- Ceanothus
- Flowering sages (*Salvia apiana*, *S. clevelandii*, *S. mellifera*, *S. officinalis*)

VINES

- Desert grape (*Vitis girdiana*)
- Chaparral clematis (*Clematis lasiantha*)

TREES

- California pepper (2)
- Desert willow (2)
- Fruitless olive (1)
- Blue oak (*Quercus douglasii*)

CONTAINER PLANTS

- Lemon
- Lime
- Nagami dwarf kumquat

CalScape.org: Native plant resource with stockist information  
<https://plant-material.com/collections/california-natives>

4 PLANTING LIST  
SCALE: NTS

AFC

Owner: Kyle Ahn/Pil Rai Ahn  
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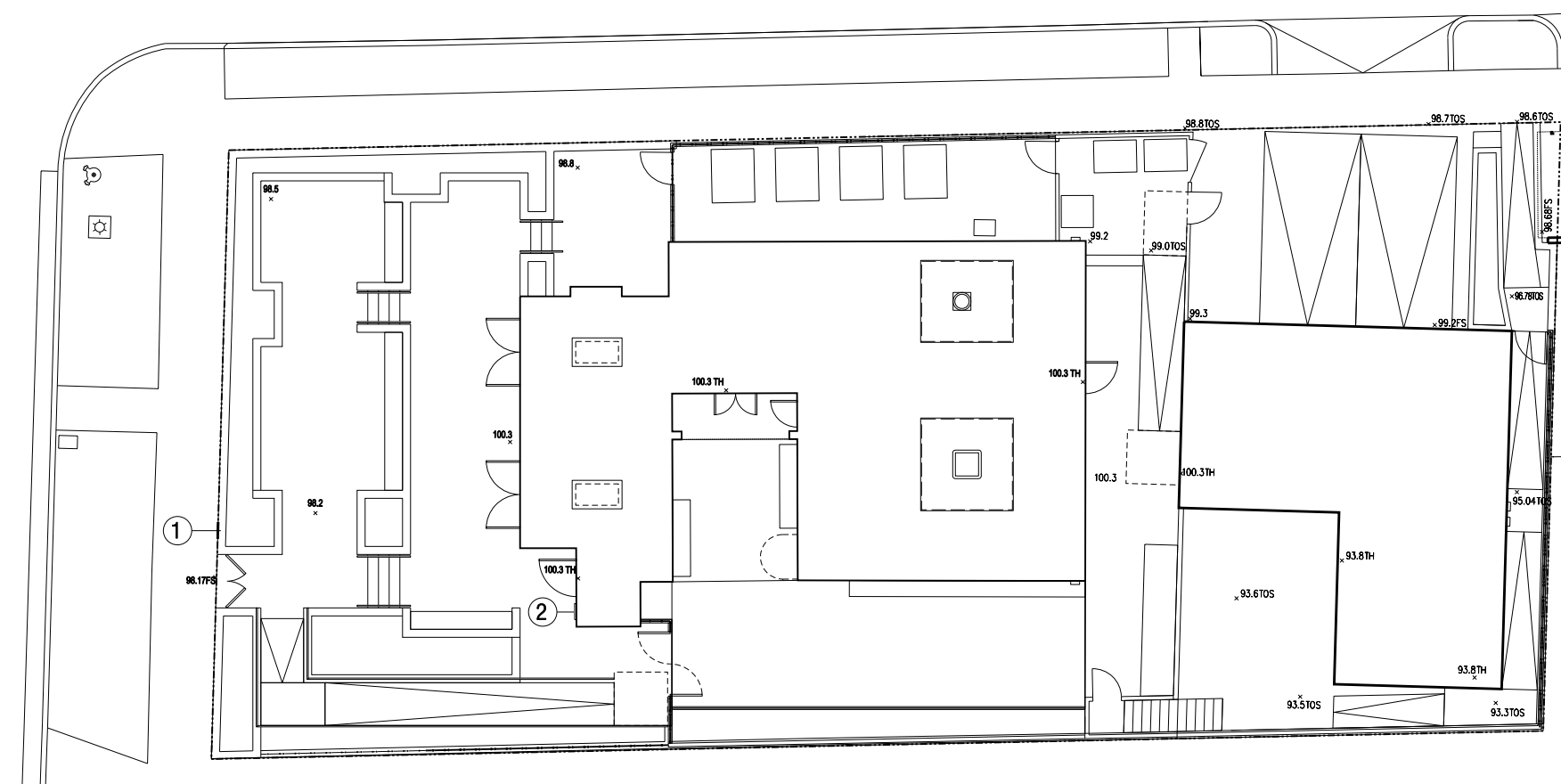
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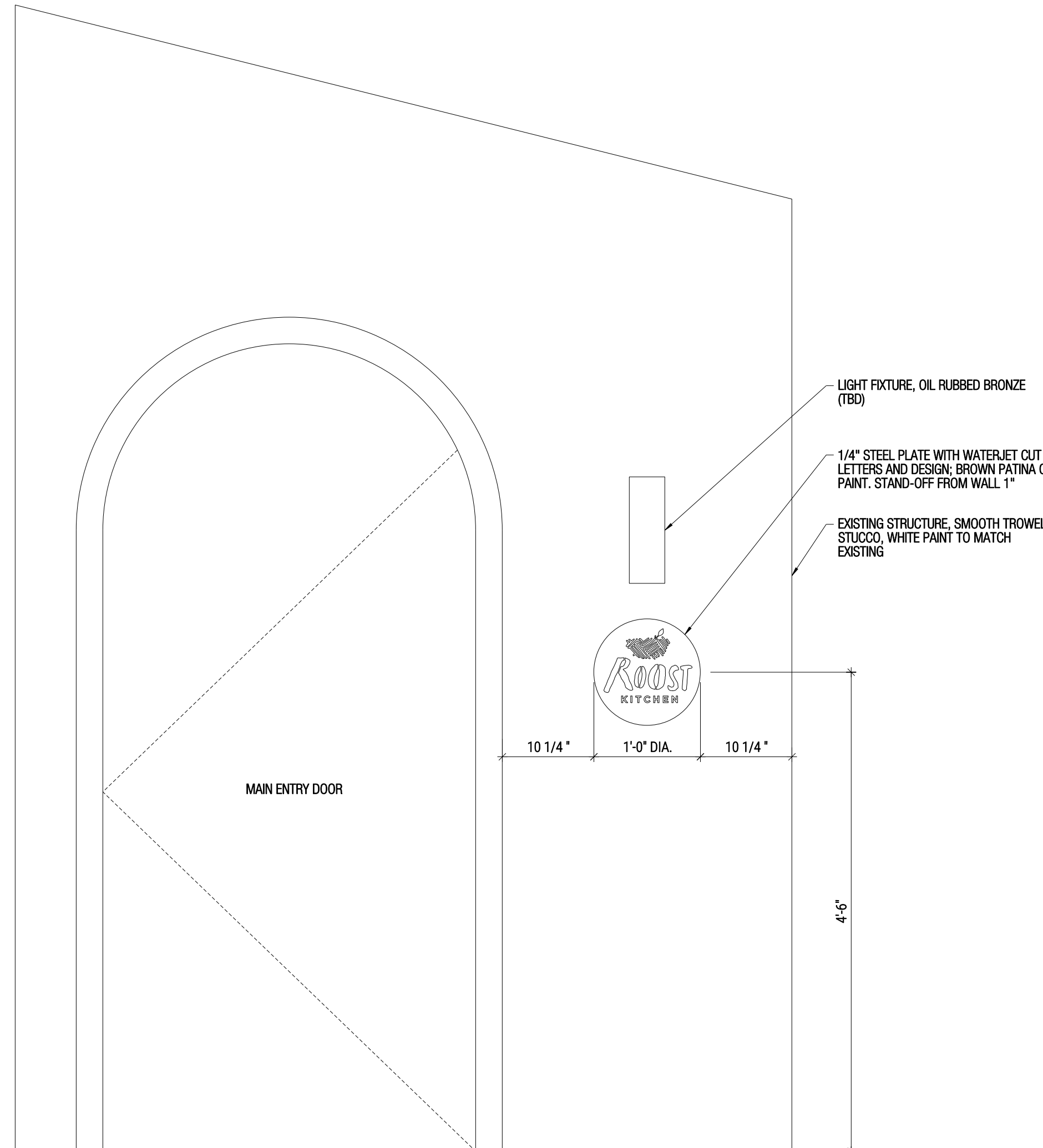
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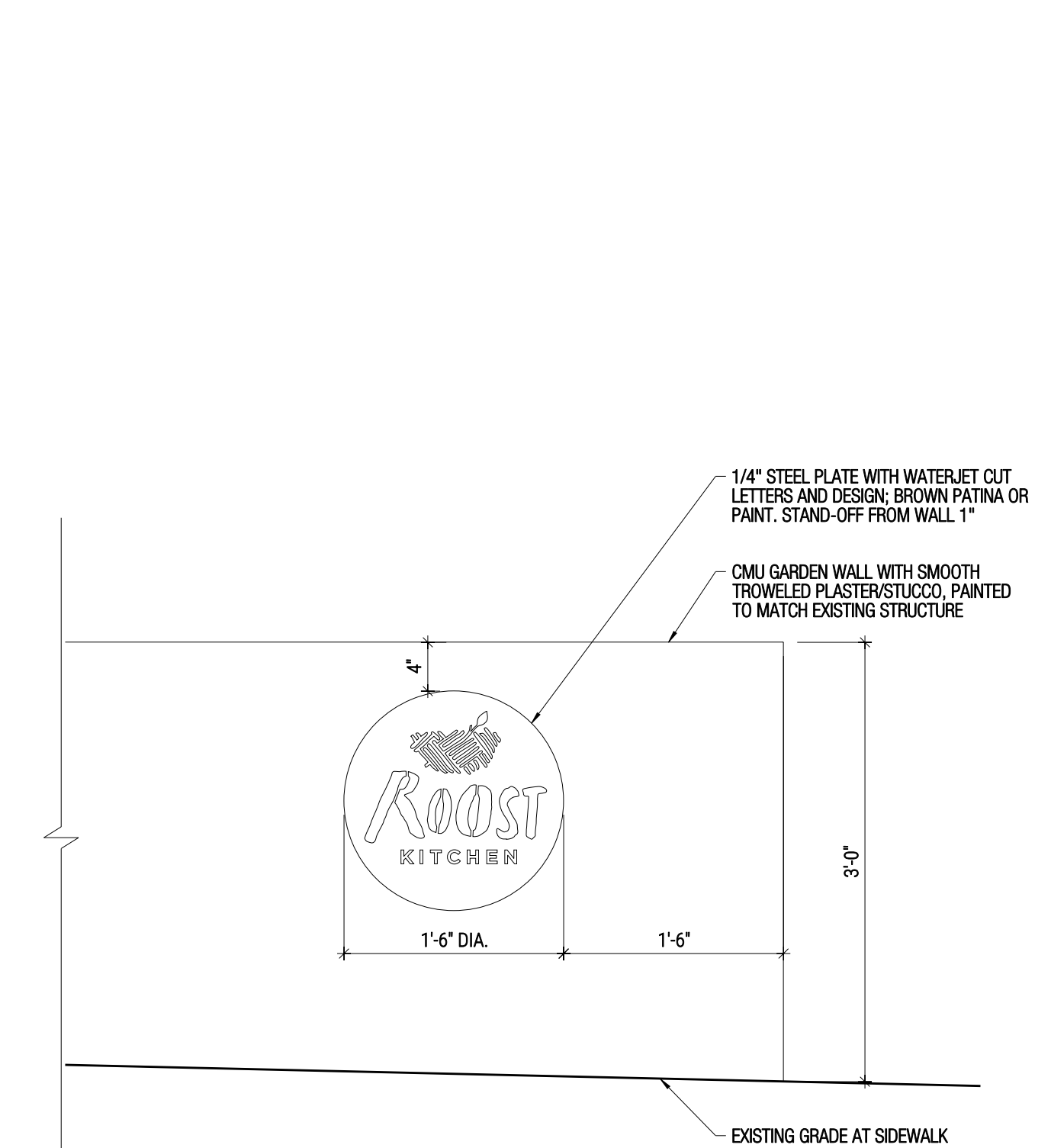
- 1 SIGN AT SIDEWALK (QTY: 1), PAINTED STEEL PLATE, 18"DIA., SEE 1/A025
- 2 SIGN AT ENTRY DOOR (QTY: 1), PAINTED STEEL PLATE, 12"DIA., SEE 2/A025

3 SIGNAGE PLAN  
SCALE: 1/16" = 1'-0"



AREA OF SIGN = 0.79SF

2 HOUSE SIGN QUANTITY: 1  
SCALE: 3/16" = 1'-0"



AREA OF SIGN = 1.77SF

1 SIDEWALK SIGN QUANTITY: 1  
SCALE: 3/16" = 1'-0"

THE ROOST  
702 FREMONT AVE  
SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

SIGNAGE AND LANDSCAPE

A025



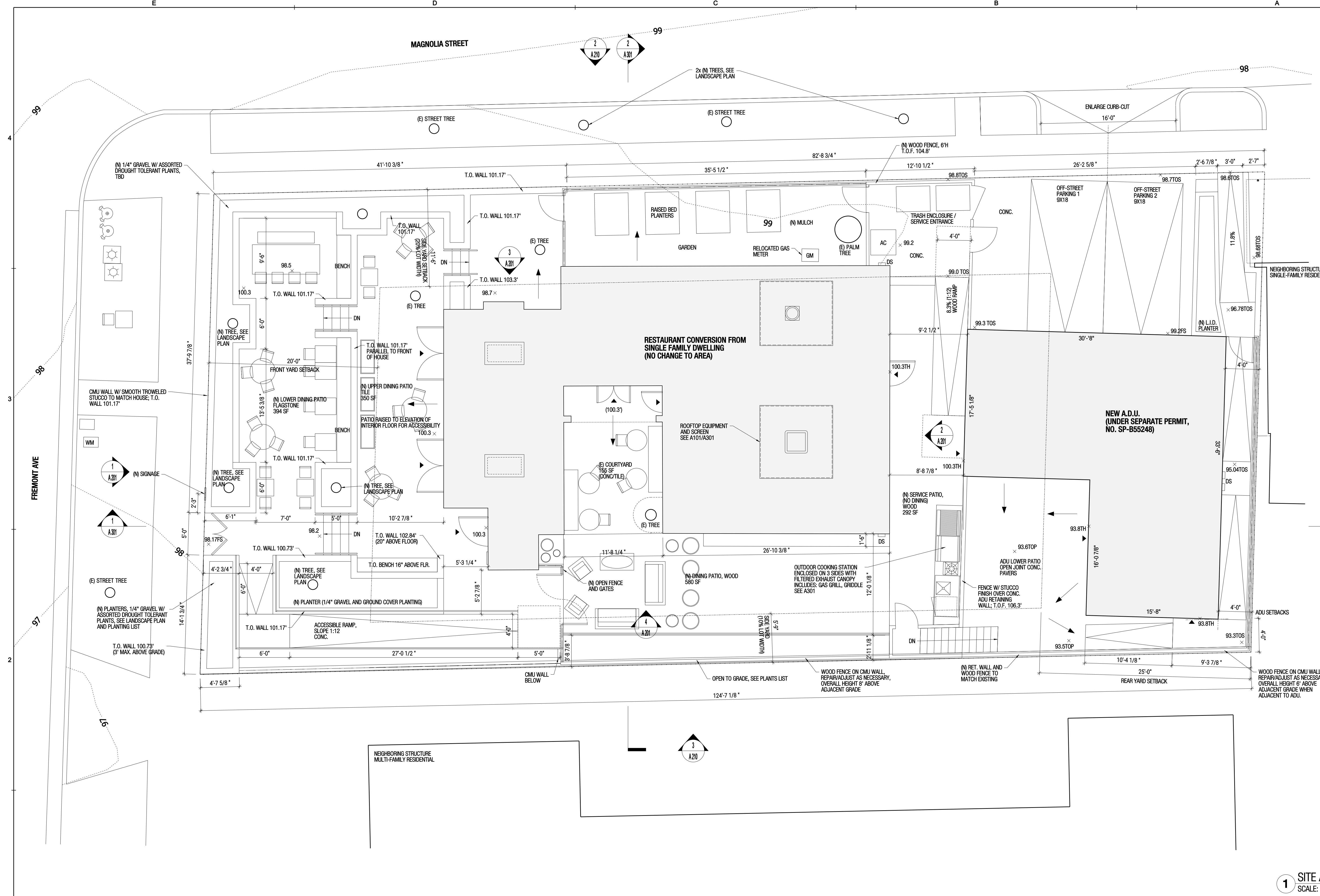
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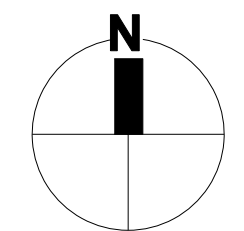


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**1 SITE AND ROOF PLAN**  
SCALE: 3/16" = 1'-0"

- NOTES**
- WHEN SLOPING GRADE AWAY FROM BASE OF STRUCTURE, CONTINUE SLOPE FOR 5' MIN. WHERE ALLOWABLE
- LEGEND**
- INDICATES DIRECTION OF SLOPE
  - SKYLIGHT, SEE SCHEDULE



THE ROOST  
702 FREMONT AVE  
SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

SITE PLAN

# A030

Owner: Kyle Ahn/PRI Rai Ahn  
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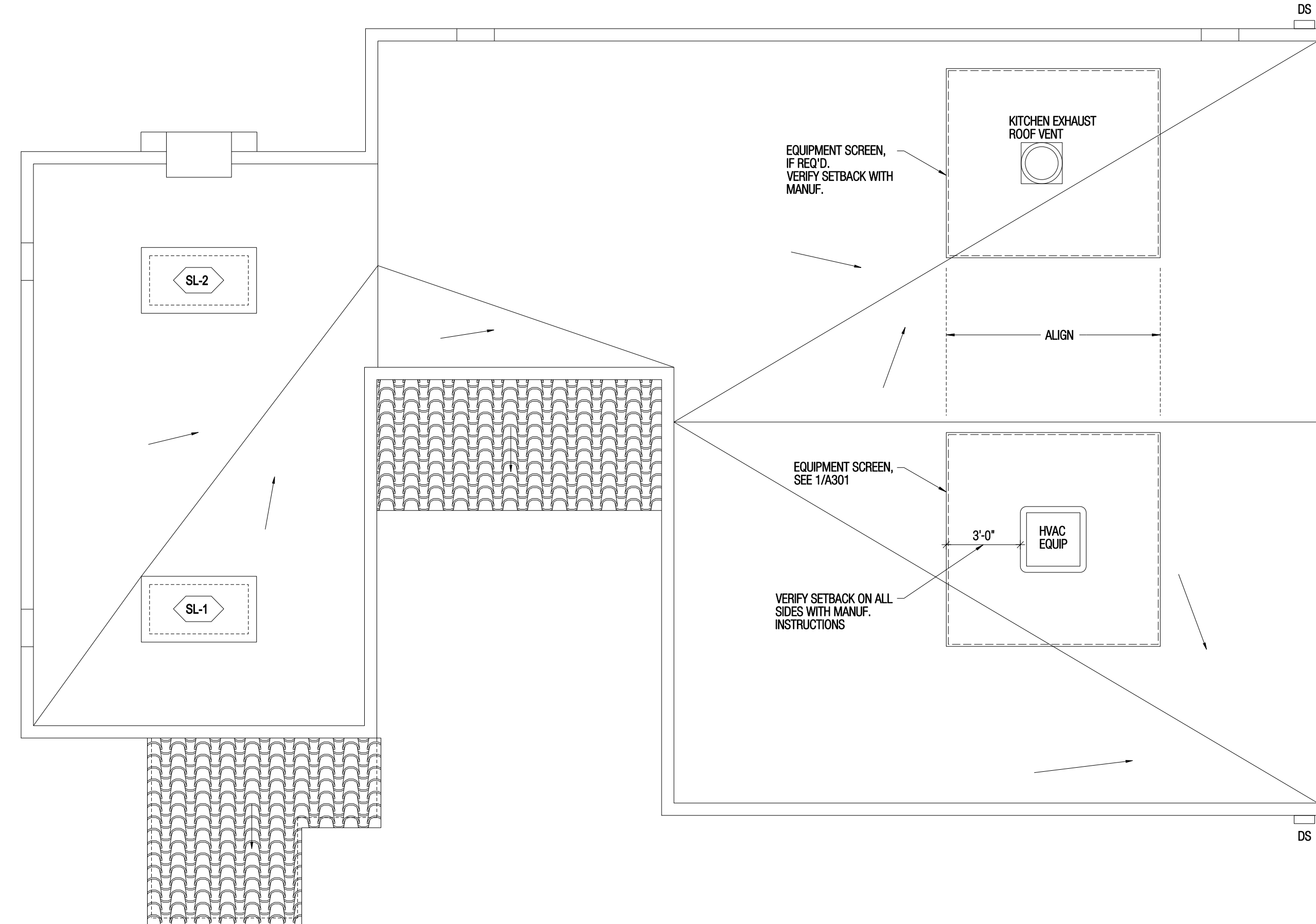
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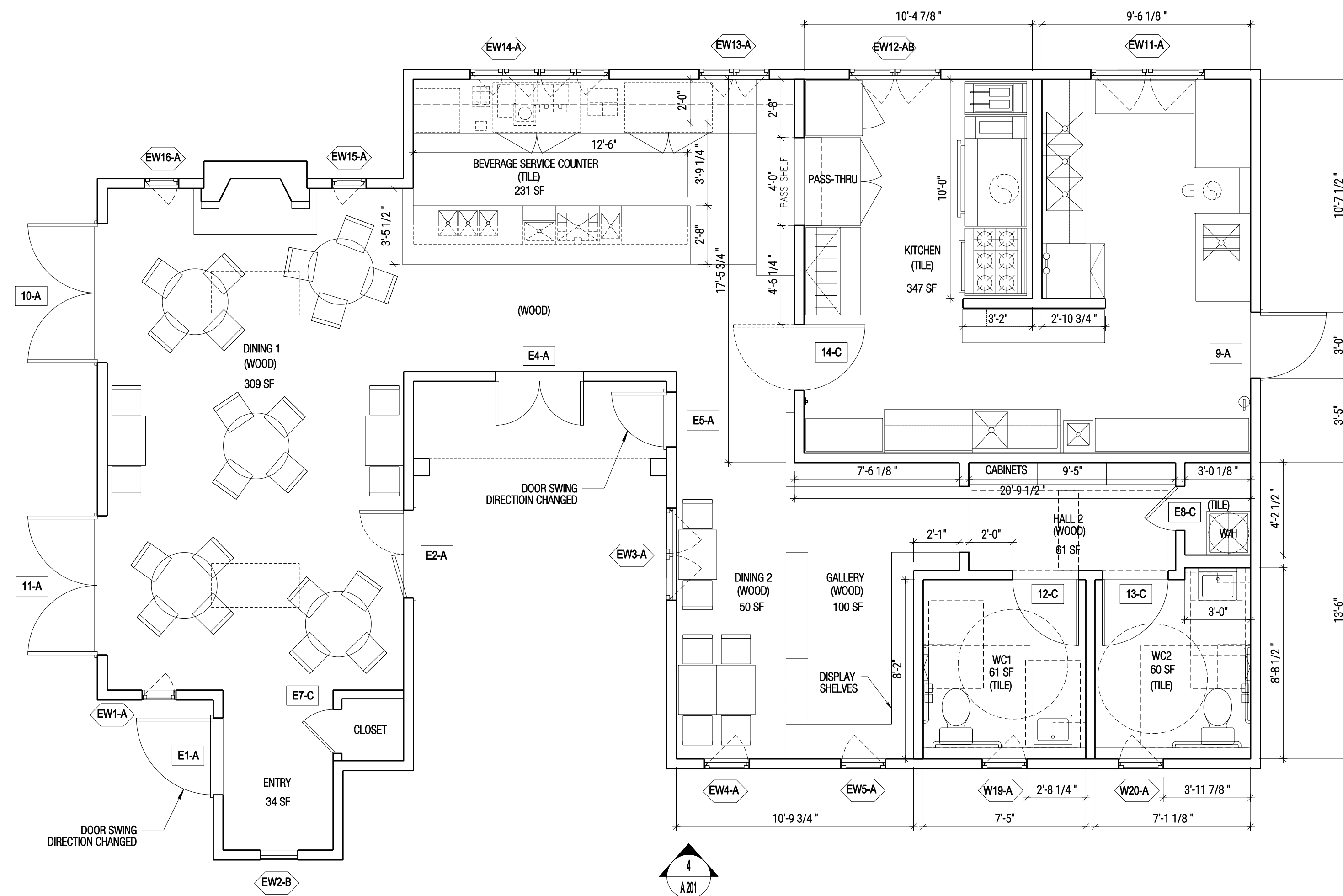


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**2 ROOF PLAN**  
SCALE: 1/4" = 1'-0"



NOTES:  
1. ALL WINDOWS AND DOORS NEW TO BE REPLACED PER SCHEDULE  
2. WINDOW LOCATIONS AND SIZES TO REMAIN UNLESS OTHERWISE NOTED - SEE ELEVATIONS  
3. REFINISH WOOD FLOORING THROUGHOUT U.O.N.

**1 FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

THE ROOST  
702 FRENCH AVE  
SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

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FLOOR PLANS

# A 101

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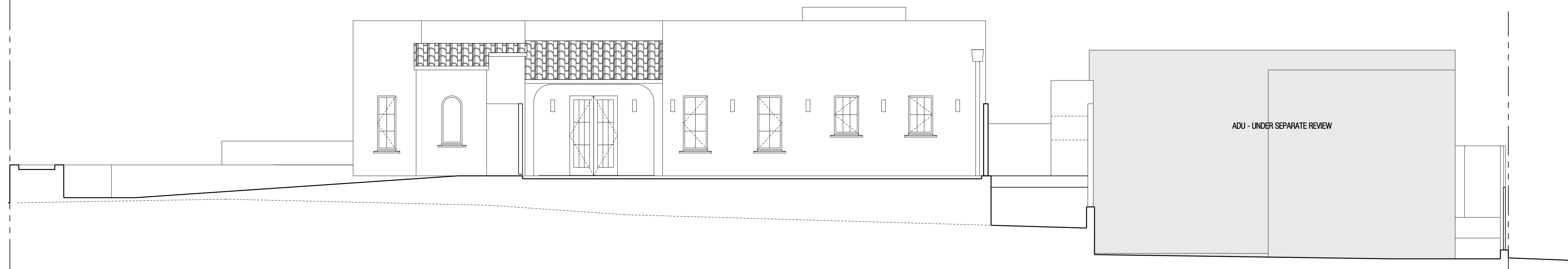
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THE ROOST  
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RESTAURANT CONVERSION

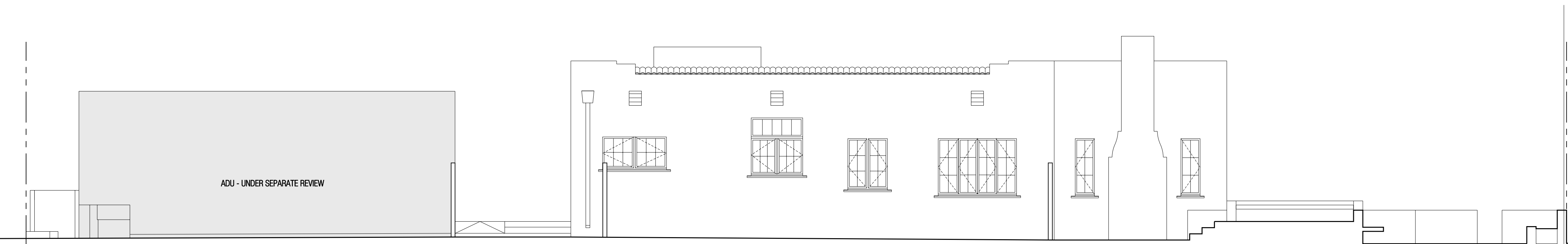
PROJECT NUMBER: AFC-211001

BUILDING ELEVATIONS



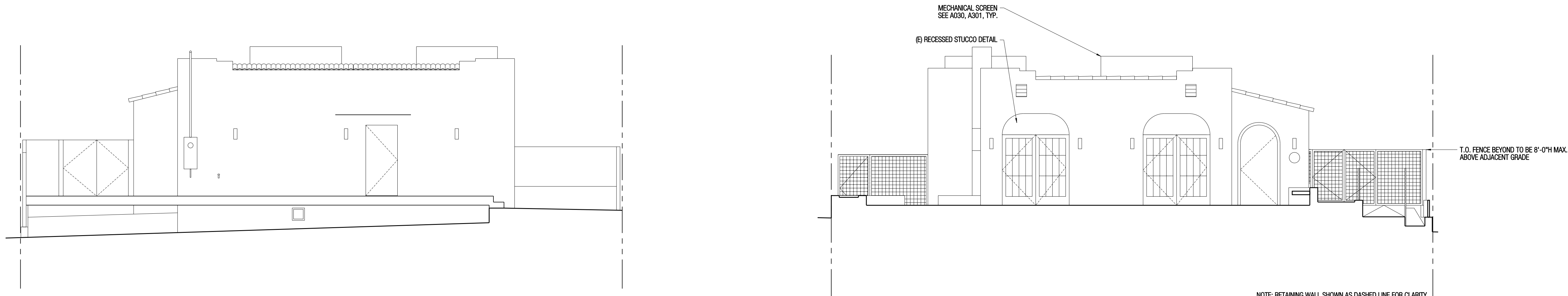
NOTE: FENCE SHOWN AS DASHED LINE FOR CLARITY

**4 SOUTH ELEVATION**  
 SCALE: 3/16" = 1'-0"



NOTE: FENCE SHOWN AS DASHED LINE FOR CLARITY

**3 NORTH ELEVATION**  
 SCALE: 3/16" = 1'-0"



NOTE: RETAINING WALL SHOWN AS DASHED LINE FOR CLARITY

**2 EAST ELEVATION**  
 SCALE: 3/16" = 1'-0"

**1 WEST ELEVATION**  
 SCALE: 3/16" = 1'-0"

- NOTES:
1. ALL EXTERIOR LIGHTS TO BE NEW DOWNLIGHTS ONLY, OIL RUBBED BRONZE FINISH
  2. REPAIR EXISTING SMOOTH TROWEL STUCCO AS NEEDED, REPAINT TO MATCH EXISTING COLOR
  3. REPAIR OR REPLACE ROOF TILES AS NECESSARY - MATCH EXISTING
  4. FOR ALL DOORS AND WINDOWS, SEE SCHEDULE AND NOTES, A6.0

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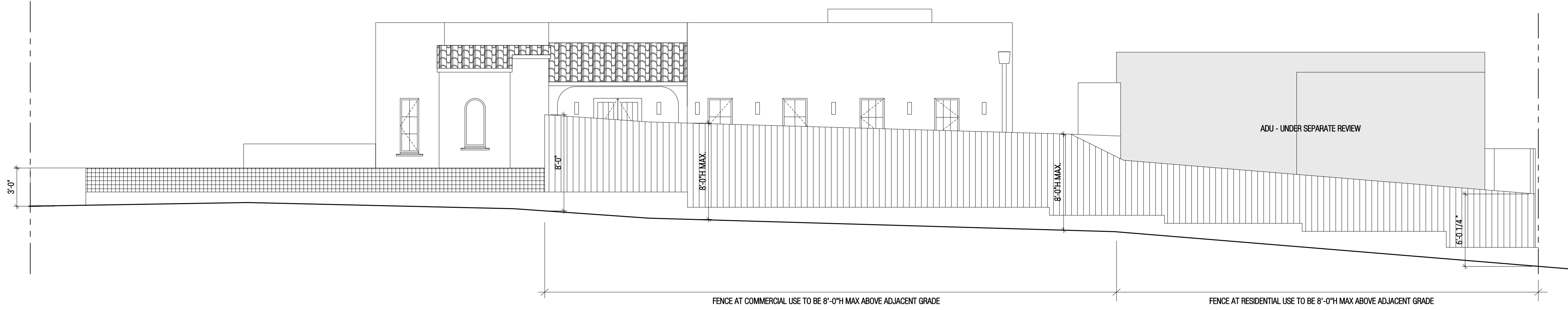
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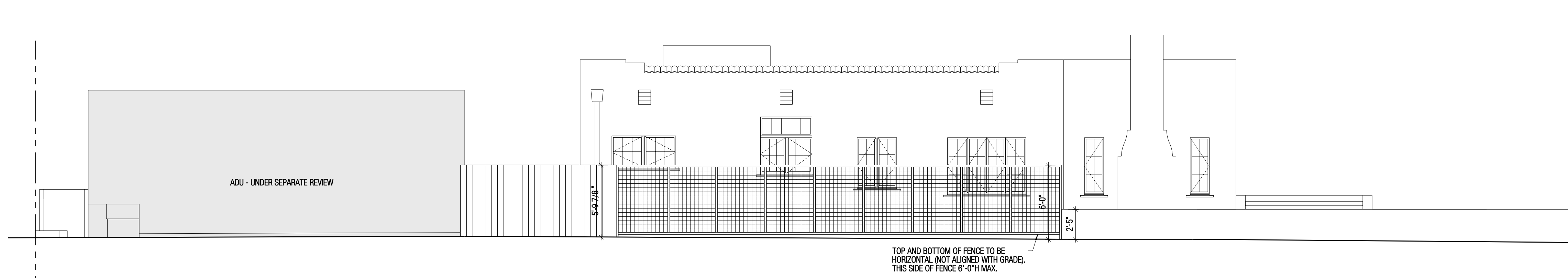


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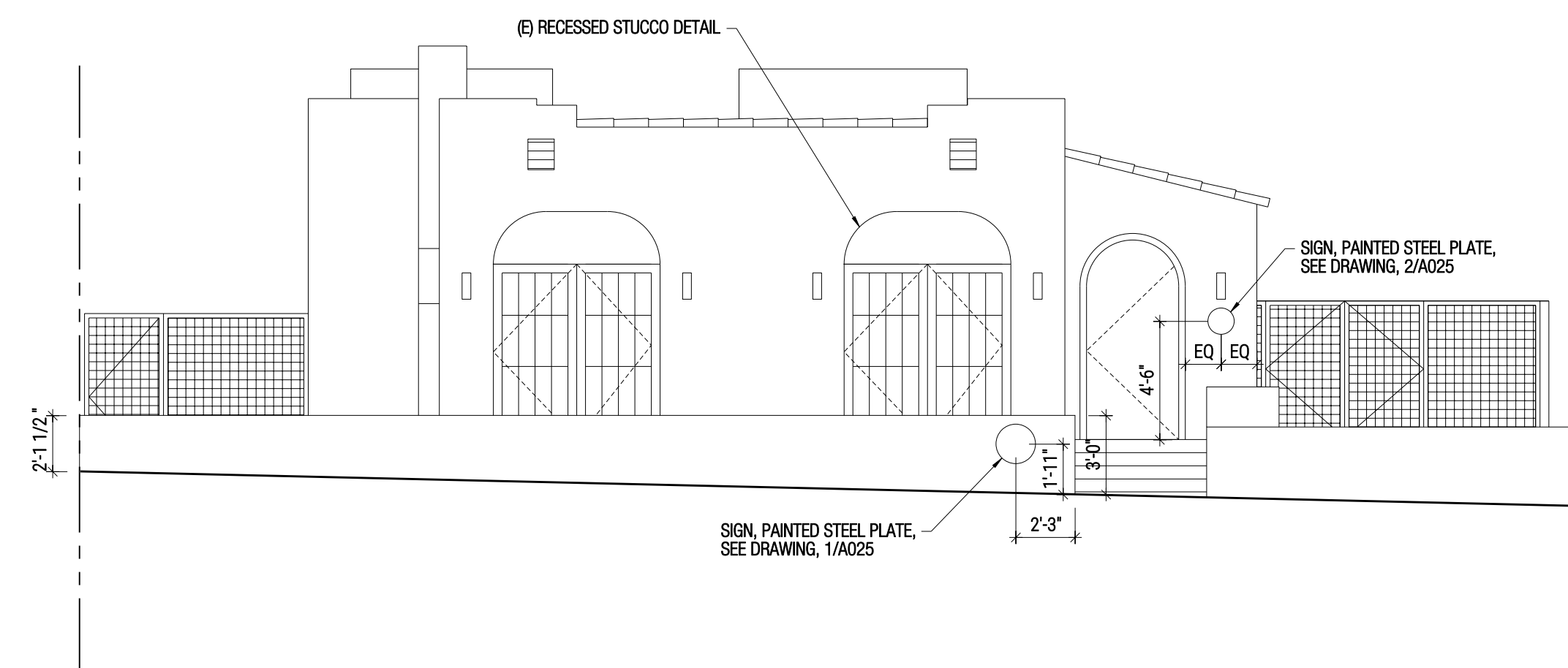
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**3 SOUTH ELEVATION**  
 SCALE: 3/16" = 1'-0"



**2 NORTH ELEVATION**  
 SCALE: 3/16" = 1'-0"



**1 WEST ELEVATION**  
 SCALE: 3/16" = 1'-0"

- NOTES:
1. ALL EXTERIOR LIGHTS TO BE NEW DOWNLIGHTS ONLY, OIL RUBBED BRONZE FINISH
  2. REPAIR EXISTING SMOOTH TROWEL STUCCO AS NEEDED, REPAINT TO MATCH EXISTING COLOR
  3. REPAIR OR REPLACE ROOF TILES AS NECESSARY - MATCH EXISTING
  4. FOR ALL DOORS AND WINDOWS, SEE SCHEDULE AND NOTES, A6.0

**THE ROOST**  
 702 FREEMONT AVE  
 SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

SITE ELEVATIONS

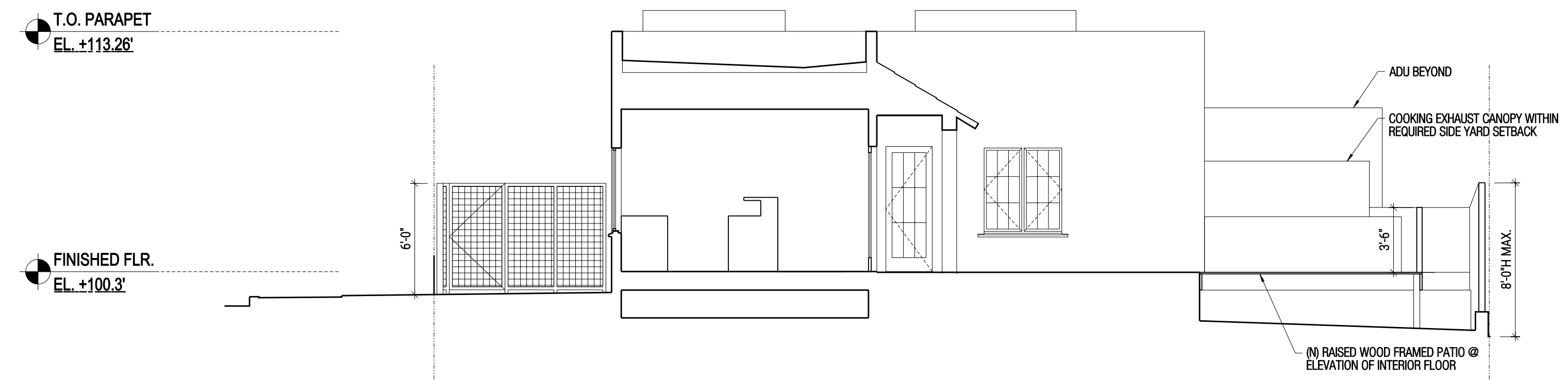
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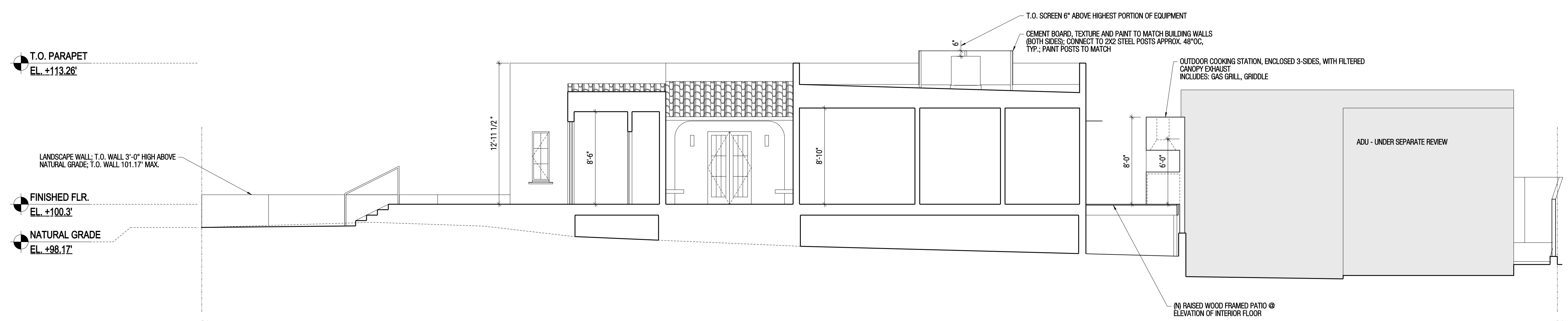


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NOTE: ALL INTERIOR ROOM HEIGHTS AND EXTERIOR BUILDING HEIGHTS TO REMAIN UNCHANGED

**2 SECTION N/S**  
SCALE: 3/16" = 1'-0"



NOTE: ALL INTERIOR ROOM HEIGHTS AND EXTERIOR BUILDING HEIGHTS TO REMAIN UNCHANGED

**1 SECTION E/W**  
SCALE: 3/16" = 1'-0"

THE ROOST  
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RESTAURANT CONVERSION

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BUILDING SECTIONS

# A 301

SKYLIGHT SCHEDULE

NUM/TYPE	LOCATION	DAYLIGHT OPENING	MAKE/MODEL	NOTES
SL-1	LIVING	48" X 24"W	VELUX FCM	DARK GRAY ALUM. FRAME, CURB MOUNT, NOT VISIBLE FROM STREET
SL-2	LIVING	48" X 24"W	VELUX FCM	DARK GRAY ALUM. FRAME, CURB MOUNT, NOT VISIBLE FROM STREET

DOOR SCHEDULE

NUMBER - TYPE	REPAIR	REMOVE	NEW	LOCATION	SIZE	HANDLESET/LATCH	BORE	NOTES
E1-A	X			ENTRY	3'-6"W X 7'-7"H	EXT. KNOB, DEADBOLT	DOUBLE	CUSTOM 9-PANEL; ARCH; 'SPEAKEASY' LITE
E2-A	X			LIVING RM	4'-0"W X 6'-8"H	EXT. KNOB	SINGLE; FLUSH BOLT	FRENCH
E3-B		X		LIVING RM	2'-6"W X 6'-8"H	EXT. KNOB	SINGLE	
E4-A	X			(E)DINING/(N)DINING CNTR.	4'-0"W X 6'-8"H	EXT. KNOB	SINGLE; FLUSH BOLT	FRENCH; CHANGE SWING AS INDICATED
E5-A	X			(E)HALL/(N)DINING CNTR.	2'-6"W X 6'-8"H	EXT. KNOB	SINGLE	CHANGE SWING AS INDICATED
E6-A		X		(E)LAUNDRY	2'-8"W X 6'-8"H	EXT. KNOB, DEADBOLT	DOUBLE	HALF LITE (SINGLE HUNG)
E7-C	X			ENTRY CLOSET	2'-0"W X 6'-8"H	PASSAGE	SINGLE	RELOCATE AS INDICATED
E8-C	X			(E)KITCHEN CLOSET	2'-0"W X 6'-8"H	PASSAGE	SINGLE	RELOCATE AS INDICATED
9-A			X	(N)PANTRY	3'-0"W X 6'-8"H	EXT. KNOB, DEADBOLT	DOUBLE	
10-A		X		LIVING RM	6'-4"W X 6'-8"H	EXT. KNOB, DEADBOLT	DOUBLE; FLUSH BOLT	FRENCH OUTSWING
11-A		X		LIVING RM	6'-4"W X 6'-8"H	EXT. KNOB, DEADBOLT	DOUBLE; FLUSH BOLT	FRENCH OUTSWING
12-C		X		SINK/TOILET	3'-0"W X 6'-8"H	PRIVACY	SINGLE	
13-C		X		BATHING	3'-0"W X 6'-8"H	PRIVACY	SINGLE	
14-C		X		KITCHEN	3'-0"W X 6'-8"H	PASSAGE	SINGLE	"EASY-SWING" DOOR

NOTES:

- SEE "GENERAL DOORS AND WINDOWS NOTES"
- U.O.N., INTERIOR DOORS TO BE REMOVED AND RE-USED AS PROJECT ALLOWS

DOOR TYPES

TYPE	DESCRIPTION	MODEL	THICKNESS	MATERIAL
A	EXTERIOR WOOD SWING - WITH LITE(S)	CUSTOM	1 3/4"	SOLID WD, CLEAR GLASS, PAINTED
B	EXTERIOR WOOD SWING - NO LITES	CUSTOM	1 3/4"	SOLID WD, PAINTED
C	INTERIOR WOOD	CUSTOM	1 3/8"	SOLID CORE WD, PAINTED

WINDOW SCHEDULE

NUM/TYPE	REPAIR	REMOVE	NEW	LOCATION	ROUGH OPENING	SILL HT.	NOTES
EW1-A	X			LIVING RM	18.5"W X 54"H	26"	
EW2-B	X			ENTRY	20.5"W X 48"H	32"	
EW3-A	X			BEDROOM 1	50.25"W X 54"H	26"	
EW4-A	X			BEDROOM 1	24.5"W X 53"H	26"	
EW5-A	X			BEDROOM 1	24.5"W X 53"H	26"	
EW6-A		X		(E)BEDROOM CLOSET	18.5"W X 30"H	50"	
EW7-A		X		(E)BEDROOM 2	24.5"W X 53"H	26"	
EW8A		X		(E)BEDROOM 2	24.5"W X 53"H	26"	
EW9A		X		(E)BEDROOM 2	50.25"W X 54"H	26"	
EW10B		X		(E)BATH	37.25"W X 33"H	40.5"	BAY
EW11-A	X			LAUNDRY	62"W X 30"H	51.5"	
EW12-AB	X			KITCHEN	50"W X 54.5"H	45.75"	TRANSOM ABOVE CASEMENT
EW13-A	X			(E)BREAKFAST/(N)DINING CNTR.	38.25"W X 48"H	32"	
EW14-A	X			(E)DINING/(N)DINING CNTR.	76"W X 53.75"H	26.25"	DOUBLE CASEMENT
EW15-A	X			LIVING RM	18.5"W X 54"H	26"	
EW16-A	X			LIVING RM	18.5"W X 54"H	26"	
EW17-A	X			LIVING RM	76"W X 53.75"H	26.25"	REPLACE WITH NEW DOORS 10-A
EW18-A	X			LIVING RM	76"W X 53.75"H	26.25"	REPLACE WITH NEW DOORS 11-A
W19-A		X		(N)SINK/TOILET	24.5"W X 38"H	42"	
W-20A		X		(N)BATHING	24.5"W X 38"H	42"	

NOTES:

- SEE "GENERAL DOORS AND WINDOWS NOTES"

WINDOW TYPES

TYPE	FUNCTION	FINISH
A	CASEMENT	CUSTOM, PAINTED WOOD, SEE GENERAL DOORS AND WINDOW NOTES
B	FIXED	CUSTOM, PAINTED WOOD, SEE GENERAL DOORS AND WINDOW NOTES

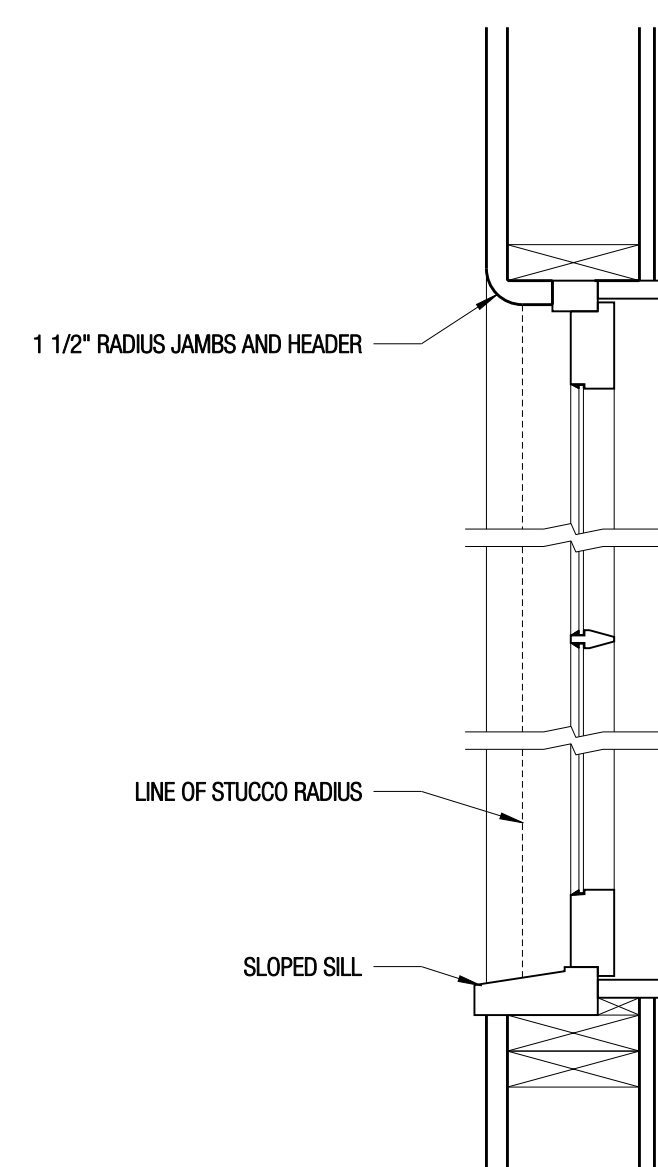
GENERAL DOORS AND WINDOWS NOTES

- \*\*\* ALL EXISTING DOORS AND WINDOWS TO REMAIN SHALL BE REPAIRED TO MATCH ORIGINAL DESIGN. IF THOSE DOORS OR WINDOWS ARE BEYOND REPAIR, THEY SHALL BE REPLACED WITH ASSEMBLIES THAT MATCH, AS NEARLY AS POSSIBLE, THE ORIGINAL MATERIALS AND DIMENSIONS. \*\*\*
- NEW FRENCH DOORS TO BE 1-3/4" THICK HARDWOOD FRAMED (WESTERN CEDAR OR EQUIVALENT), WITH SINGLE PANE TEMPERED LOW-E GLAZING, AND 3/4" OGEE MUNTINS; SIZE, PANELS AND GLASS DIVISIONS PER ELEVATIONS, AND TO MATCH (OR REPAIR AND REUSE) EXISTING. PROVIDE SPRUNG BRONZE/BRASS WEATHERSTRIPPING AND AN OIL RUBBED BRONZE THRESHOLD. HARDWARE (BALDWIN, OR EQUIVALENT); PROVIDE 3 PAIR OF BALL FINIAL HINGES NO. 1040.031/1090.031 IN UNFINISHED BRASS (1 1/2 PAIR AT SINGLE LEAF), TOP AND BOTTOM SURFACE BOLTS NO. 0344.031 IN UNFINISHED BRASS, COLLAR NO. R018.031, THUMB-TURN NO. 6721.031, TWO (2) KNOBS NO. 5030.031 AND MORTISE LOCK NO. RH 6075.033.R IN UNFINISHED BRASS AT ACTIVE LEAF.
  - NEW INTERIOR DOORS TO BE A 1-3/4" THICK HARDWOOD FRAMED, 5 PANEL SOLID CORE WOOD LEAF (DOUGLAS FIR OR EQUIVALENT), TO MATCH EXISTING. HARDWARE (BALDWIN, OR EQUIVALENT); PROVIDE 1 PAIR OF BALL FINIAL HINGES NO. 1040.031/1090.031, COLLAR NO. R018.031, TWO (2) KNOBS NO. 5030.031 AND SMALL CASE MORTISE LOCK NO. 8530.031 IN UNFINISHED BRASS AT ACTIVE LEAF.
  - NEW INTERIOR POCKET DOORS TO BE A 1-3/4" THICK HARDWOOD FRAMED, 5 PANEL SOLID CORE WOOD LEAF (DOUGLAS FIR OR EQUIVALENT), TO MATCH EXISTING. HARDWARE (BALDWIN OR EQUIVALENT); PROVIDE MORTISED POCKET DOOR LOCK NO. 8632.044 WITH RECESSED PULLS NO. PDO 16.056.PASS, IN UNFINISHED BRASS.
  - NEW WINDOWS TO BE HARDWOOD FRAMED CASEMENT SASH (WESTERN CEDAR OR EQUIVALENT) WITH SINGLE PANE TEMPERED LOW E GLAZING, AND 3/4" OGEE MUNTINS, SIZE, AND GLASS DIVISIONS PER ELEVATIONS, AND TO MATCH (OR REPAIR AND REUSE) EXISTING. PROVIDE SPRUNG BRONZE WEATHERSTRIPPING. HARDWARE (HOUSE OF ANTIQUE HARDWARE, OR EQUIVALENT); PROVIDE 2 PAIR OF BALL FINIAL INSWING CASEMENT HINGES NO. R-04BM-8819-PB IN UNFINISHED BRASS (1 PAIR AT SINGLE SASH), FASTENER NO. R-01BM-8825-PB IN UNFINISHED BRASS.

NOTES:

- DRAWING IS DIAGRAMMATIC, INDICATIVE OF SLOPED SILL, MUNTIN AND WOOD CONSTRUCTION. ACTUAL WINDOW DETAILS WILL MATCH EXISTING IN CONSTRUCTION METHOD AND APPEARANCE.

2 TYP. WINDOW DETAIL  
SCALE: 3/16" = 1'-0"



AFC

Owner  
Kyle Ahn/Pil Rai Ahn  
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Struct. Eng.  
TY Engineering and Design  
962 Manhattan Beach Blvd., Suite 260  
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+1 (310) 938-0060



ISSUES / REVISIONS:

DATE	SYM	DESCRIPTION
02/21/2024		PLANNING CUP REVIEW
03/19/2024		PLANNING CUP REVIEW

THE ROOST  
700 FREEMONT AVE  
SOUTH PASADENA, CA 91030

RESTAURANT CONVERSION

PROJECT NUMBER: AFC-211001

SCHEDULES

A 601

# **ATTACHMENT 4**

Renderings







**ATTACHMENT 5**

Tree Removal Approval Letter



## CITY OF SOUTH PASADENA

1414 MISSION, SOUTH PASADENA, CA 91030  
TEL: 626.403.7241 • FAX: 626.403-7240  
[WWW.SOUTHPASADENACA.GOV](http://WWW.SOUTHPASADENACA.GOV)

April 24, 2023

Kyle and Mimi Ahn  
702 Fremont Avenue  
South Pasadena, CA 91030

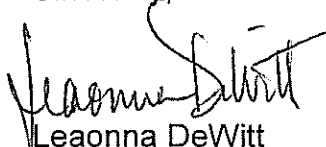
Re: Tree Removal/Replacement Application

After reviewing your application, it has been determined to grant you a tentative approval for the removal of eleven (11) trees, including one mature oak and one significant jacaranda located on the property subject to the following conditions:

1. The tree removal permit will be granted upon approval of the building permit, as per the South Pasadena Municipal Code (SPMC) Chapter 34.10(a)(5). A tree removal permit must be obtained prior to scheduling any work to remove or transplant a tree. This tentative approval is **exclusively** for the tree removal process and is not to be construed as Project approval.
2. Based on the size of the trees and species, the applicant is required to replace with seven (7) trees prior to project final.
- 3). As per the SPMC 34.10(a)(5), a deposit in the amount of \$2,345 (\$335 per tree) for the required replacement trees, in an amount sufficient to cover the cost of all required replacement trees, as determined by the city's arborist.

If you have any questions, please feel free to contact me at 626-403-7240.

Sincerely,

  
Leaonna DeWitt  
Public Works Assistant

cc: H. Ted Gerber, Public Works Director  
Catrina Peguero, Public Works Operations Manager



## **ATTACHMENT 5**

Director's Interpretation No. 2021-001 – Alcohol Sales in CO zone



**City of South Pasadena  
Planning and Community  
Development Department**

## **DIRECTOR'S INTERPRETATION**

**Date:** January 21, 2021

**To:** Honorable City Council, Planning Commission, Design Review Board, Cultural Heritage Commission, City Manager, City Attorney, City Clerk

**From:** Joanna Hankamer, Planning and Community Development Director

**Re:** Director's Interpretation No. 2021-001 for Alcoholic Beverage Sales in the Commercial Office Zone

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**SOUTH PASADENA MUNICIPAL CODE SECTION:**

South Pasadena Municipal Code ("SPMC") sections 36.230.020(B), 36.230.030, 36.350.040(A)-(B), 36.350.130(E), 36.410.060, and 36.700.020,

**QUESTIONS NEEDING INTERPRETATION:**

May the sale of alcoholic beverages be permitted as an accessory use to a conditionally permitted restaurant in the Commercial Office zone?

**DETERMINATION:**

Yes, the sale of alcoholic beverages may be permitted as an accessory use to a conditionally permitted restaurant in the Commercial Office zone pursuant to the Zoning Code and General Plan.

**BACKGROUND:**

On January 28, 2019, the Planning commission approved Project No. 2163-CUP-DRX, which included the conversion of a portion of the existing office building and subterranean parking area into a restaurant with outdoor dining located at 625 Fair Oaks Avenue ("Project"). The approval did not address the sale of alcoholic beverages in connection with the operation of the proposed restaurant. On September 2, 2020, Douglas Yokomizo, of the law firm of Monteleone & McCrory, submitted a Request for a Director's Interpretation on behalf of the owner of the Project, Greenbridge Investment Partners, regarding "allowing the sale of alcoholic beverages for on-premises consumption as incident to and subsumed within the permitted restaurant use at this particular location." Attached as Exhibit A is the Request for a Director's Interpretation.

## **DISCUSSION & FINDINGS:**

### **Authority for Director's Interpretation**

“The Director shall have the responsibility and authority to interpret the meaning and applicability of all provisions and requirements of [South Pasadena's] Zoning Code.”<sup>1</sup> In the event of any conflict between provisions of the Zoning Code, the most restrictive requirements must control; “except in case of any conflict between the regulation of Article 2 [...] and Article 3 [...], Article 3 shall control.”<sup>2</sup> Borrowing from legal jurisprudence, the Director interprets every provision of the SPMC to avoid a construction making any provision surplusage.<sup>3</sup> The Director's Interpretation must include:

- (1) A quotation of the interpreted provisions of the Zoning Code;
- (2) findings stating the basis for the interpretation; and
- (3) findings regarding the interpretation's consistency with the General Plan.

The Director's Interpretation must be distributed to the City Council, Planning Commission, Design Review Board, Cultural Heritage Commission, City Manager, City Attorney, City Clerk, and affected Department staff.<sup>4</sup> The Director's Interpretation may be appealed to the Planning Commission under SPMC 36.610.040(A).<sup>5</sup>

### **Alcoholic Beverage Sales in the Commercial Office Zone Under the Zoning Code**

The Project is located within the Commercial Office or “CO” zone. “The CO zoning district is applied to areas appropriate for professional offices. Other uses including business support services, restaurants, and specialty retail land uses may be allowed.”<sup>6</sup> The land uses allowed in the Commercial Office Zone are summarized in Section 36.230.030. Under Table 2-4, “Restaurants” are permitted with a conditional use permit, whereas “Alcoholic Beverage Sales” are prohibited.<sup>7</sup>

The Zoning Code defines “Restaurant” to mean “A retail business selling ready-to-eat food for on- or off-premise consumption. These include eating establishments where customers are served from a walk-up ordering counter for either on- or off-premise consumption, and establishments where most customers are served food at tables for on-premise consumption, but may include providing food for take-out. Also includes coffee houses.”<sup>8</sup> This definition implicitly includes the sale of beverages, but it is silent as to the sale of alcoholic beverages. The Zoning Code defines “Alcoholic Beverage Sales” to mean “The retail sale of beer, wine, and/or other alcoholic beverages for on- or off-premise consumption.”<sup>9</sup> If these definitions are interpreted narrowly, no restaurant would be permitted to serve beer or wine within the CO zone.

A more reasonable interpretation is that Table 2-4 prohibits “Alcoholic Beverage Sales” as the primary use of the establishment. The Zoning Code defines “Primary Use” to mean “The main purpose for which a site (or, in the case of a commercial use, in the space occupied by a particular

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<sup>1</sup> SPMC § 36.110.020.

<sup>2</sup> SPMC § 36.110.040(F)(1).

<sup>3</sup> *Arnett v. Dal Cielo* (1996) 14 Cal.4th 4, 22.

<sup>4</sup> SPMC § 36.110.040(C)–(D).

<sup>5</sup> SPMC § 36.110.040(E).

<sup>6</sup> SPMC, § 36.230.020(B).

<sup>7</sup> SPMC, § 36.230.030, Table 2-4.

<sup>8</sup> SPMC, § 36.700.020.

<sup>9</sup> SPMC, § 36.700.020.

land use) is developed and occupied, including the activities that are conducted on the site (or in a particular commercial space) during most of the hours when activities occur.”<sup>10</sup> Establishments for which “Alcohol Beverage Sales” are a primary use include bars and liquor stores. As a corollary to this interpretation, “Alcoholic Beverage Sales” should be permitted as an accessory or ancillary use to a restaurant. “Accessory use” means “A use customarily incidental to, related and clearly subordinate to a principal use established on the same parcel (or, in the case of a commercial use, in the space occupied by a particular land use), which does not alter the principal use nor serve property other than the parcel where the principal use is located.”<sup>11</sup>

The narrow interpretation of Alcoholic Beverage Sales in Article 2 is inconsistent with Article 3 of the Zoning Code, which allows alcoholic beverage sales at restaurants within an outdoor dining area.<sup>12</sup> The Zoning Code’s rules of interpretation require that where there is a conflict between Article 2 and Article 3, the provisions of Article 3 control.<sup>13</sup>

Further, Article 3 does not regulate Alcoholic Beverage Sales, but rather Alcoholic Beverage Establishments, which require a conditional use permit.<sup>14</sup> The purpose of this requirement is “to mitigate potential adverse land use impacts (e.g., littering, loitering, and others) on the peace, health, safety and welfare of residents in nearby areas, that may arise from the undue proliferation and/or inappropriate location of establishments selling alcoholic beverages.”<sup>15</sup> Accessory or ancillary Alcoholic Beverage Sales at restaurants do not create the types of peace, health, safety and welfare concerns that are often generated by bars and liquor stores, where Alcoholic Beverage Sales are the Primary Use.

### **Alcoholic Beverage Sales in the Commercial Office Zone Under the General Plan**

Allowing Alcoholic Beverage Sales as an Accessory Use in the Commercial Office Zone is also consistent with the General Plan. “The CO zoning district is consistent with the Professional Office land use designation in the General Plan.”<sup>16</sup> “This land use designation is intended to establish professional offices as the dominant use within the boundaries of the designation along with such appropriate residential and commercial uses as office support services, retail coffee, food, and restaurants.”<sup>17</sup>

The Project is located in the Upper Fair Oaks Focus Area in the Land Use Element of the General Plan. The Upper Fair Oaks Area is characterized by “largely auto-orientated specialty commercial and fast food ... .”<sup>18</sup> The General Plan seeks to transition away from these uses. “[T]his subarea represents an opportunity over the longer term to expand the pedestrian-friendly core-uses and character of the Central District.”<sup>19</sup> Guideline 1.3 states, “Allow mixed-use. Encourage the

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<sup>10</sup> SPMC, § 36.700.020.

<sup>11</sup> SPMC, § 36.700.020.

<sup>12</sup> SPMC, § 36.350.130(E).

<sup>13</sup> SPMC § 36.110.040(F)(1).

<sup>14</sup> SPMC, § 36.350.040(B).

<sup>15</sup> SPMC, § 36.350.040(A).

<sup>16</sup> SPMC, § 36.230.020(B).

<sup>17</sup> General Plan, p. II-10.

<sup>18</sup> General Plan, p. II-49.

<sup>19</sup> General Plan, p. II-49.

integration of presently established auto-oriented uses with pedestrian-friendly ground-floor commercial (any retail/restaurant) and second-floor commercial or office, fronting Fair Oaks at this gateway to the City.”<sup>20</sup>

The narrower interpretation would run contrary to the General Plan as it would significantly restrict the type and quality of restaurant that could occupy the space. It certainly would not allow “any retail/restaurant” as envisioned by the General Plan. Prohibiting the “Alcoholic Beverage Sales” would likely limit the type of restaurants to fast food establishments, which do not serve alcohol.

**CONCLUSION:**

The sale of alcoholic beverages may be permitted as an accessory use to a conditionally permitted restaurant in the Commercial Office zone pursuant to the Zoning Code and General Plan.

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<sup>20</sup> General Plan, p. II-49.