Project Team

OWNER:
KENNETH & MAY NGAI
3121 BANDERA DRIVE
PALO ALTO, CA 94304
PHONE: (408) 394-4339
KEN@AEC-ENGINEERS.COM

ARCHITECT:
VRchitects, APC
908 INDUSTRIAL AVE
PALO ALTO, CA 94303
OFFICE PHONE: (844) 400 7212
CONTACT: DANIEL HRUBY
DAN@VRCHITECTS.COM

GENERAL CONTRACTOR:
GREENBERG CONSTRUCTION
904 INDUSTRIAL AVE
PALO ALTO, CA 94303
OFFICE PHONE: (844) 349 4411
CONTACT: MAOR GREENBERG

ARBORIST:
MOKI SMITH ARBORIST CO.
409 TENANT STATION #550
MORGAN HILL, CA 95037
PHONE: (408) 722-8942
MOKISMITHARBORIST@GMAIL.COM

LANDSCAPE DESIGN:
LK DESIGN STUDIO
5810 MARACAIBO DR
SAN JOSE, CA 95120
PHONE: (408) 896-7989
LIKUNCAO@GMAIL.COM

CIVIL ENGINEER:
L. WADE HAMMOND CIVIL ENGINEERING
36660 NEWARK BLVD, SUITE C
NEWARK, CA 94560
PHONE: (510) 579-6112
WILL@WHLANDSURVEYOR.COM

General Notes

1. All work shall conform to all applicable codes and ordinances.

2. Do not scale drawings: use calculated dimensions only. Verify existing "as-built" dimensions as req'd. All dimensions are to face of stud unless noted otherwise.

3. Verify all rough-in dimensions and locations for equipment, fixtures etc. Provide all blocking, buck-outs, backing and jacks required for installation.

4. All wood in contact with concrete to be pressure treated.

5. All flashing to be galvanized, Galvalume or factory finish to be approved by architect and owner.

6. Contractor shall verify all existing conditions prior to initiating any portion of the work.

7. Provide all protection, shoring and bracing as required by site conditions in order to maintain a safe job site and protect components to remain.

8. Stair and guardrail openings to be less than 4".

9. Tight line all affected drainage to approved drainage system.

10. All framing to be properly caulked, sealed, gasketed or otherwise treated to minimize air infiltration prior to sheathing and finishing.

11. All (new) smoke detectors to be hardwired to home's electrical system.

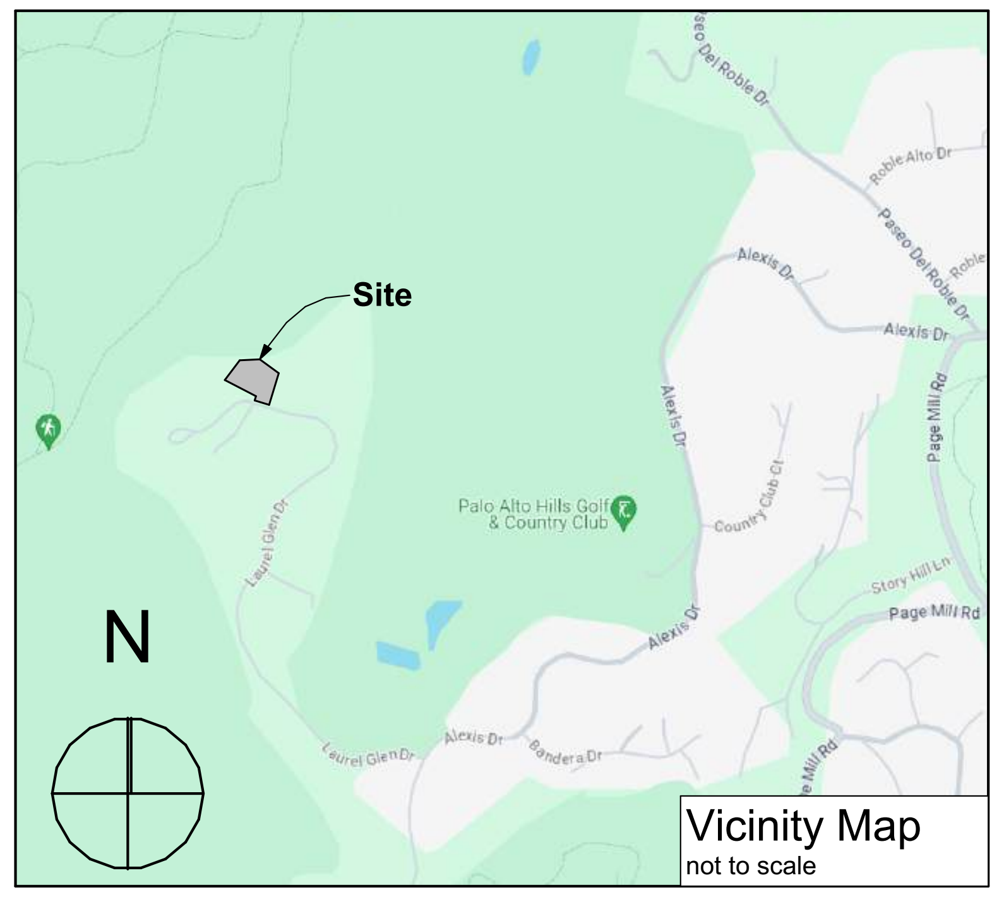
12. If subsurface water is encountered at any point, contact the owner's geotechnical engineer for recommendations before proceeding.

13. All Exterior Metal cladding for fascia, trim, an other architectural details is to be 20 Ga. Minimum. No seams where possible.

Applicable Codes

2022 CRC	(California Residential Code)
2022 CBC	(California Building Code, structural design)
2022 CMC	(California Mechanical Code)
2022 CPC	(California Pumbing Code)
2022 CEC	(California Electrical Code)
2022 CFC	(California Fire Code)
2022 CalGreen	(California Green Building Code)
2022 CENC	(California Energy Code)

All codes shall be used with ammendments of local jurisdiscion.



Vicinity Map
not to scale

Scope of Work:

Primary Residence:
5,563.73 SF New construction, Single family residence.
5 Bedrooms, 6.5 Baths & 3 Car Garage.

Deferred Submittals:

-
-

* Submittal documents for deferred submittal items shall be submitted to architect or engineer of record, who shall review and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and they have been found to be in general conformance with the design of the building. The deferred submittal item shall not be constructed or installed until their design and submittal documents have been approved by the building official.

Property Information

Project Type:	Single Family Residential
Owners:	Ken & May Ngai
Site Address:	929 Laurel Glen Drive Palo Alto CA 94304
Legal Description:	Lot 2. Tract 6723 448, Book 48-51
APN:	182-54-013
Lot Area:	184,201 sq ft
Zoning:	OS (Open Space District)
Flood Zone:	X
FEMA Map Panel:	0018H
Construction Type:	Type VB

CRC 337 (WUI / VHFSZ) Compliance: Required

Fire Sprinklers:	Fully Sprinklered (NFPA 13D)

Floor Area Calculation

Max allowable floor area (4%) (0.04X184,201)	7,368.04 sq ft
Proposed First Floor Area	2,194.46 sq ft
Proposed Second Floor Area	3,462.93 sq ft
Total Proposed Floor Area	**5,657.39 sq ft**

Calculation of Floor Area Ratio
"(I) Gross floor area shall be calculated based upon the same criteria as Low Density Residential zone districts, as specified in Definitions Section 18.04.030(65)(C) and (D), except as below.
(II) Basements shall follow the same standards as the R-1 Single Family Residential district, except that in addition basement area shall count if any portion is constructed on a slope in excess of ten percent (10%)."

Per 18.04.030(65):
Second and third floor equivalency
The area of the staircase and the elevator is counts as second floor equivalency (height is more than 17' but less than 26'). However these areas are aleready included on both the first and second floor already.
No area is more than 26' above the first floor, therefore there are no third floor equvalency.

Porches, balconies, entry features
1. Non-roofed porches, entryways, balconies etc.:
There is a non-roofed balcony on the second floor, and it does not count towards the floor area.
2. Roofed porches on the first floor:
The balcony on the first for can be considered as roofed porch. Openness is more than 50%, therefore it does not count towards the floor area. Also, per 18.04.030(65)(D) (v) exclusion (cited below) the balcony does not count as floor area.
3. Roofed entry features on the first floor that are less than 12' high (from grade):
The entry feature is 11'-2 3/4" high, therefore it does not count towards the floor area.
4. Roofed entry features on the 1st fl oor that are more than 12' high from grade—vaulted entry feature:
The roofed entry is less than 12' high, see item #4 above.
5. Recessed porches on the first floor:
There are no recessed porch in the first floor.
6. Roofed balconies/outdoor areas on upper floors:
There are no roofed balconies on the second floor.

*** Per 18.04.030(65)(D) (v):*
Exclusions
Open or partially enclosed (less than 50% enclosed) porches, whether recessed or protruding, located on the first floor, and for R-1 zones porches reaching a height of less than 12 feet measured from grade as set forth in Section 18.12.040(b), shall be excluded from gross floor area, whether covered or uncovered. Recessed porches located on the first floor with a depth of less than 10 feet shall be excluded from the calculation if the exterior side(s) of the porch is open.

Impervious Coverage

Max allowable floor area (4%) (0.04X184,201)	7,368.04 sq ft
Balconies, Exterior Stairs & Walkways: (2,191.15 @ 100%)	2,191.15 sq ft
Proposed Building: (3,462.93 @ 100%)	3,462.93 sq ft
Proposed Driveway: (2,548.40 @ 60%)	1,529.07 sq ft
Proposed Total Impervious Coverage:	**7,183.15 sqft**

Setbacks, Building Height

Required Front Setback:	30'
Proposed Front Setback	35.49'
Required Side Setback:	30'
Proposed Right Side Setback:	58.84'
Proposed Left Side Setback:	352.20'
Required Rear Setback:	30'
Proposed Rear Setback:	264.75'
Max Number of Stories:	2
Proposed Number of Stories:	2
Max Allowable Building Height:	25'
Proposed Building Height:	25'

Sheet Index

Cover Sheet, Permit Requirements

Floor Plans

Layout Plans

Elevations

Sections

Landscape

Civil Plans

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www.VRchitects.com

929 Laurel Glen Drive, Palo Alto, CA
929 Laurel Glen Drive
Palo Alto , CA 94304

Project Number: Project Number

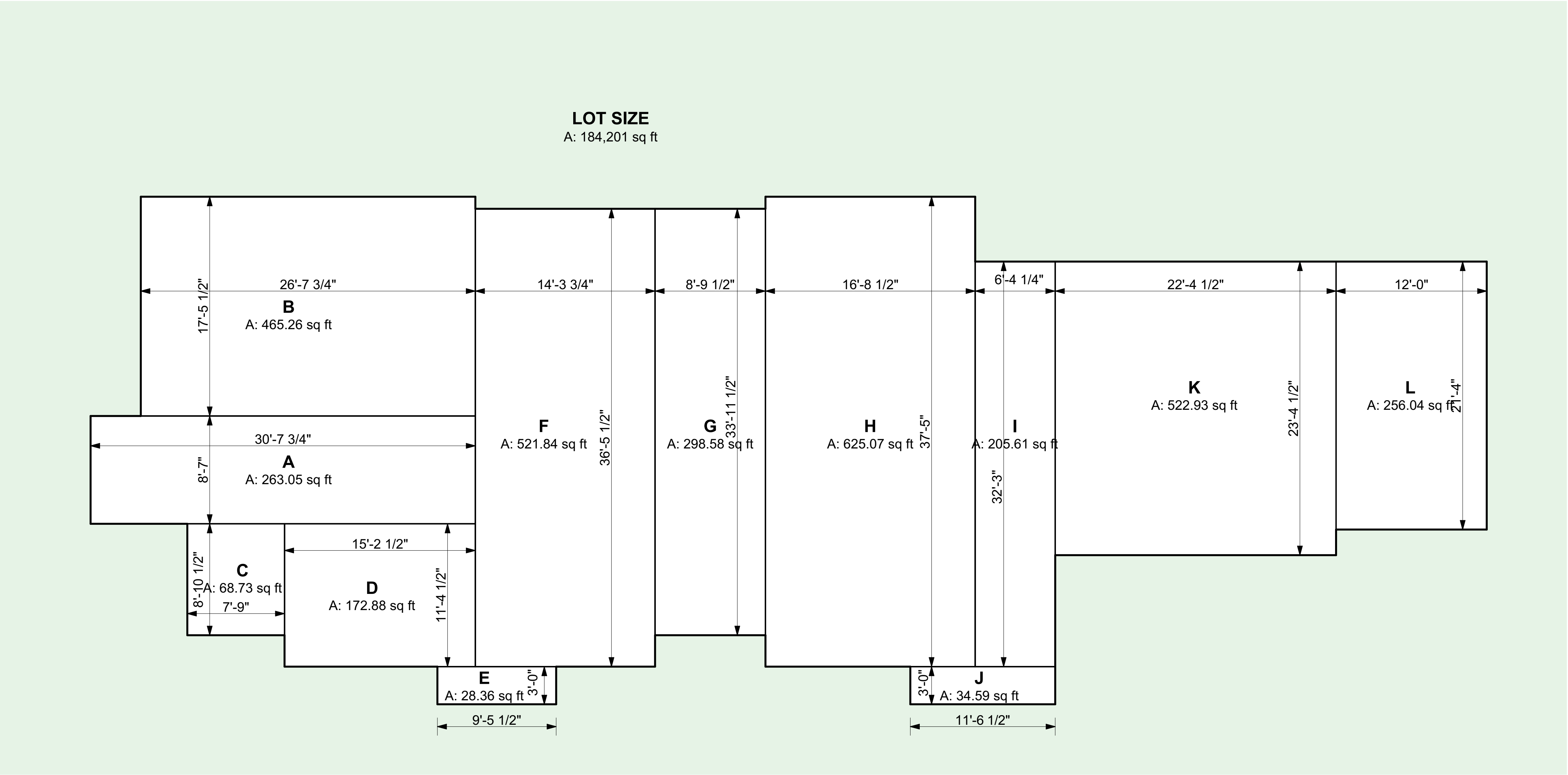
LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Cover Sheet and Site Plan

A01

Printed: 12/19/2024



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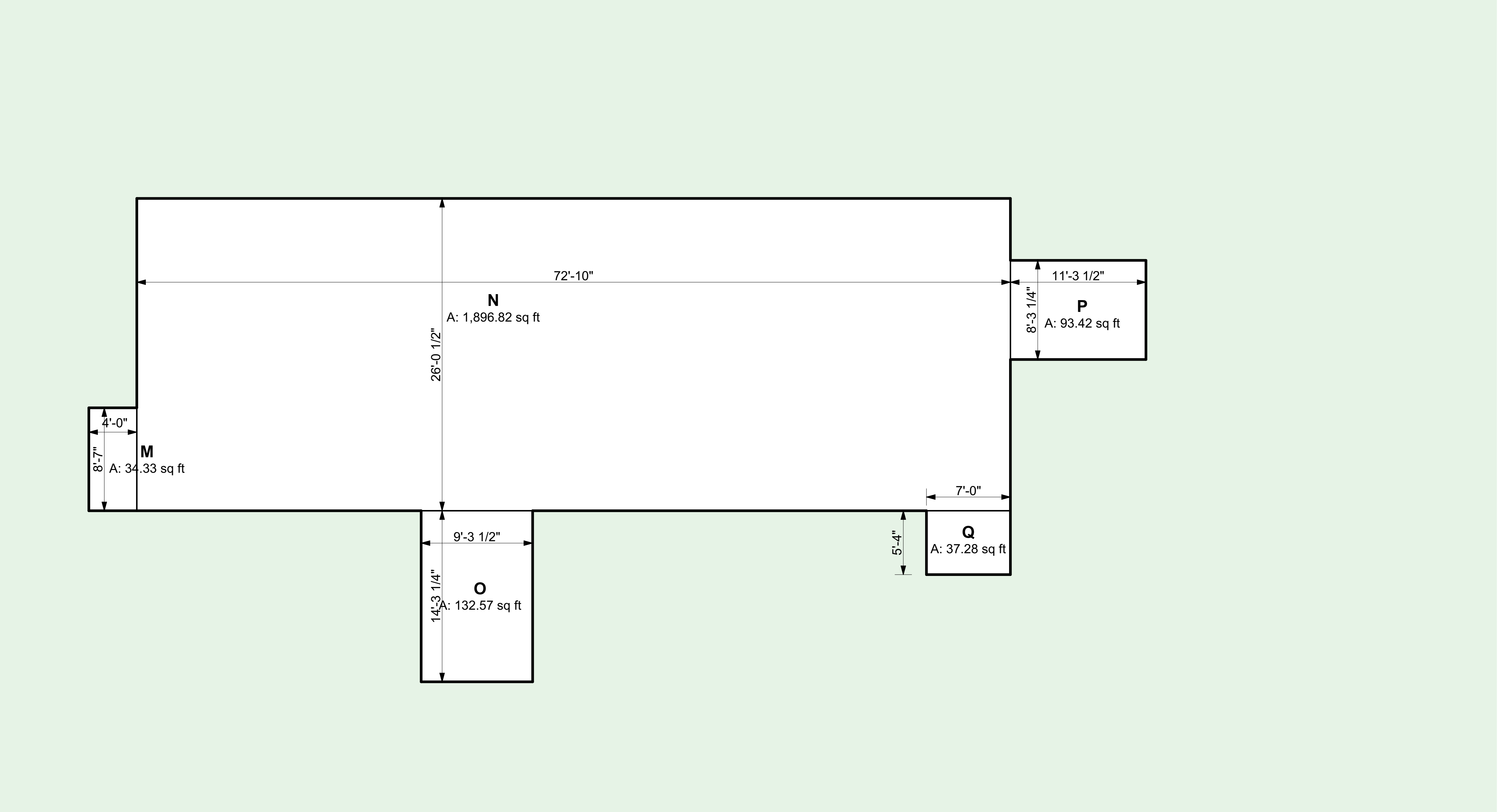
A02

Second Floor Area Diagram

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



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A02

First Floor Area Diagram

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

Floor Area Tabulation

Level	Level	Area Type	Area
F.F.	First Floor Area	Conditioned Space	2,194.46
	M	34.33	
	N	1,896.82	
	O	132.57	
	P	93.42	
	Q	37.28	
F.F.	Second Floor Area	Conditioned Space	3,462.93
	A	263.05	
	B	465.26	
	C	68.73	
	D	172.88	
	E	28.36	
	F	521.84	
	G	298.58	
	H	625.07	
	I	205.61	
	J	34.59	
	K	522.93	
	L	256.04	
	First Floor Area	Conditioned Space	2,194.46
	Second Floor Area	Conditioned Space	3,462.93
	Total Floor Area		**5,657.39 ft²**

Impervious Area Tabulation

Designation	Measured Area	Impermeable Ratio	Calculated Area
Balconies, Exterior Stairs & Walkways	2,191.15	100%	2,191.15
Building	3,462.93	100%	3,462.93
Driveway	2,548.40	60%	1,529.07
Total Impervious Area			**7,183.15 ft²**


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APG NEW ENGLAND
46 Spring Street
Holbrook, MA 02343
Ph: 781-767-2202

Property Information

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Owners:	Ken & May Ngai
Site Address:	929 Laurel Glen Drive Palo Alto CA 94304
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The entry feature is 11'-2 3/4" high, therefore it does not count towards the floor area.

4. Roofed entry features on the 1st floor that are more than 12' high from grade—vaulted entry feature:

The roofed entry is less than 12' high, see item #4 above.

5. Recessed porches on the first floor:

There are no recessed porch in the first floor.

6. Roofed balconies/outdoor areas on upper floors:

There are no roofed balconies on the second floor.

*** Per 18.04.030(65)(D) (v):*

Exclusions

Open or partially enclosed (less than 50% enclosed) porches, whether recessed or protruding, located on the first floor, and for R-1 zones porches reaching a height of less than 12 feet measured from grade as set forth in Section 18.12.040(b), shall be excluded from gross floor area, whether covered or uncovered. Recessed porches located on the first floor with a depth of less than 10 feet shall be excluded from the calculation if the exterior side(s) of the porch is open.

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Max Number of Stories:	2
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Max Allowable Building Height:	25'
Proposed Building Height:	25'

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929 Laurel Glen Drive, Palo Alto, CA

929 Laurel Glen Drive
Palo Alto , CA 94304

Project Number: Project Number

Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on extensions of the project, or other projects, except by agreement in writing and appropriate compensation to the Architect.

The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the project.

LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Zoning Summary

A02

Printed: 12/19/2024

Aerial View

Bird's Eye View

1 Front or Property Looking North

2 Front or Property Looking North

3 Front or Property Looking North

4 Front or Property Looking North

5 Front or Property Looking North

6 Inside Property Looking West

7 Inside Property Looking North-East

8 Inside Property Looking North

9 Inside Property Looking North

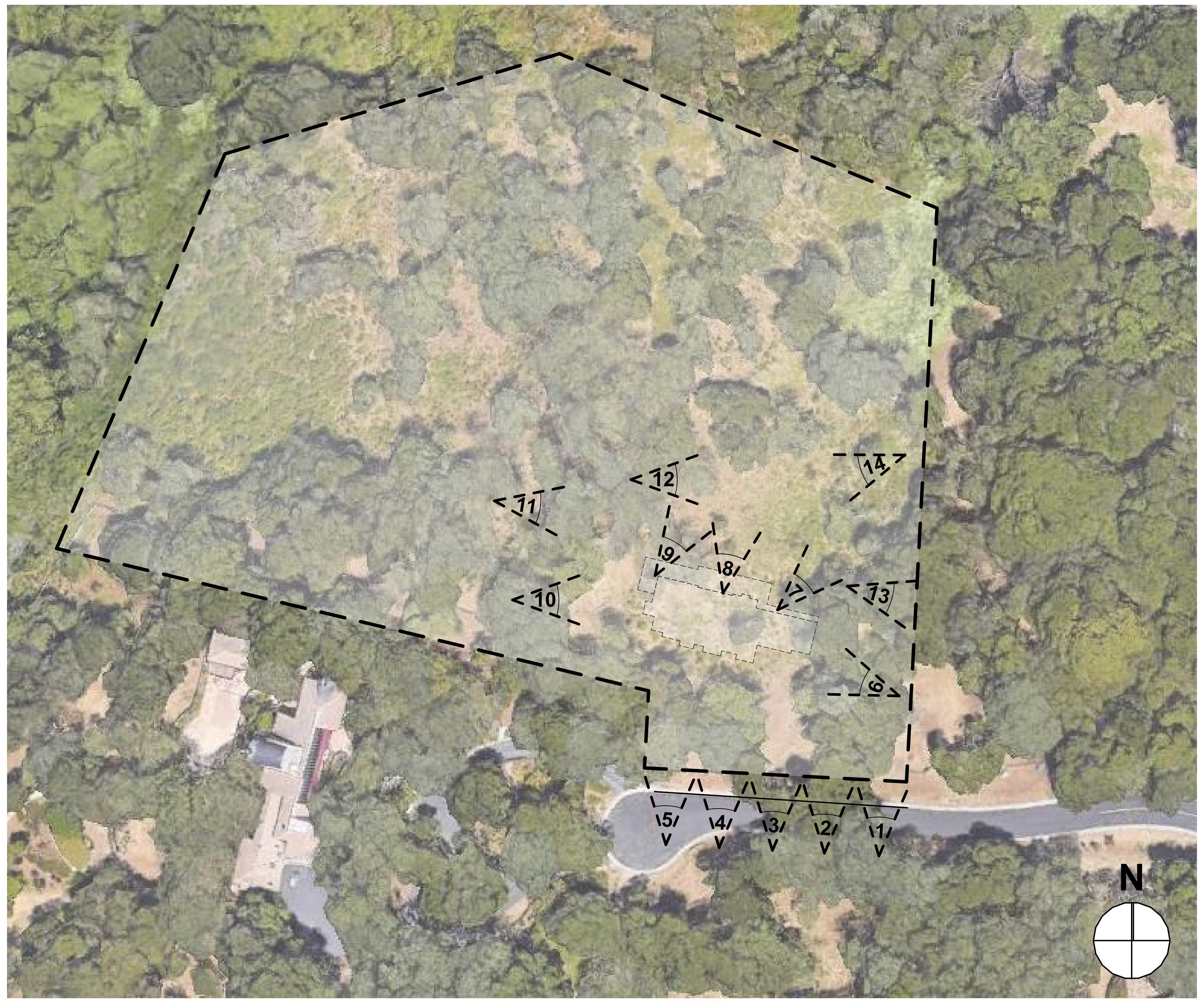
10 Inside Property Looking East

11 Inside Property Looking East

12 Inside Property Looking East

13 Edge of Property Looking North-East

14 Inside Property Looking South-West



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929 Laurel Glen Drive, Palo Alto, CA

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No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Site Photos

A03

Printed: 12/19/2024

City of Palo Alto

Tree Protection - It's Part of the Plan!

Make sure your crews and subs do the job right!

Fenced enclosures around trees are essential to protect them by keeping the foliage canopy and branching structure clear from contact by equipment, materials, and activities, preserving roots and soil conditions in an intact and non-compacted state, and identifying the Tree Protection Zone (TPZ) in which no soil disturbance is permitted and activities are restricted, unless otherwise approved. **An approved tree preservation report must be added to this sheet when project activity occurs within the TPZ of a protected tree.**
For detailed information on Palo Alto's protected trees and tree protection during development, review the **City's Tree and Landscape Technical Manual** (TLTM) found at www.cityofpaloalto.org/trees *

CITY OF PALO ALTO
Urban Forestry Section
Development Review

TREE DISCLOSURE STATEMENT

THIS FORM MUST BE COMPLETED BY A CERTIFIED ARBORIST *

trees@cityofpaloalto.org 650-496-5953

Palo Alto Municipal Code, Chapter 8.10.040, requires disclosure and protection of certain trees located on private and public property, and that they be shown on approved site plans. A completed tree disclosure statement must accompany all applications for development that include exterior work, all demolition or grading permit applications, or other development activity that may impact protected trees.

PROPERTY ADDRESS: d Laurel Canyon Drive, Palo Alto 94304

1. **Are there any trees over 4" in trunk diameter being proposed for removal?** ☒ **YES** ☐ **NO**
2. **Are there Protected[1] trees on the property or on adjacent property within 30 feet of the proposed building footprint/ area of work?** ☒ **YES** (continue form) ☐ **NO** (proceed to question 6)
3. Where are the trees located? Check all that apply. **(Plans submitted must show all trees over 4" in diameter)**
   - ☑ On the property or in the adjacent public right-of-way** and within 30 feet of the proposed building footprint or
   - ☐ On adjacent property within 30 feet of proposed building footprint/area of work or
   - ☐ Close enough that its canopy overhangs the project site

****Street trees on the property or within 30ft of proposed work require special protection by a fenced enclosure** per the instructions on the T-1 Sheet. Prior to beginning any work, you must schedule a Street Tree Protection Verification inspection by calling Public Works Operations at 650-496-5953 for an inspection of any required type I, II or III fencing (see attached Detail #605). NOTE: ADU only projects (including Table 1/SB9) are not exempt.

4. Are there any Protected Native Species Trees, Protected Mature Trees, Heritage Trees, or Designated Trees[1] ?

   ☒ **YES** (Check below) ☐ **NO**

   - ☑ **Protected Native Species Trees** - *Acer macrophyllum*, *Calocedrus decurrens*, *Quercus agrifolia*, *Quercus douglasii*, *Quercus kelloggii*, or *Quercus lobata* 11.5" DBH or more or *Sequoia sempervirens* 18" DBH or more
   - ☑ **Protected Mature Trees** - Any tree equal to or greater than 15" DBH (Excluding invasive species and high water users)
   - ☐ **Designated Trees** - Mitigation trees or commercial and non-residential property trees, which are part of a previously approved landscape plan
   - ☐ **Heritage Trees** - Specific individual trees designated by Council. See the Heritage Tree List

5. Is there activity or grading within the TPZ of these trees? TPZ = radius of 10 times the diameter. ☒ **YES** ☐ **NO**

   If Yes, a ***Tree Preservation Report*** *must be prepared by an ISA certified arborist and submitted for staff review (see TLTM, Section 5.3.3).[2] Attach this report to Sheet T-2,: "Tree Protection, its Part of the Plan!", per Site Plan Requirements.**

6. Are the Site Plan Requirements completed? (See below) ☒ **YES** ☐ **NO**

*For ADU Only Projects: this form may be filled out by the applicant instead of by a certified arborist. A "Yes" answer to question 5 for Table 1 projects or garage conversions will not require a Tree Preservation Report. Table 1/SB9 projects are not exempt from tree disclosure.

For All Projects the following is required: Plans (drawn by architect, contractor or arborist) must show the tree species, measured trunk DBH, and Dripline of each tree 4" DBH or larger. ADU only projects may indicate species and tree sizes are estimated/approximate.

For Projects with Trees Requiring Tree Protection: the following is required: 1) Plans (drawn by architect, contractor or arborist) must show the measured trunk DBH and TPZ of each Protected Tree; 2) Plans must denote, as a bold dashed line, a fenced enclosure containing the TPZ per Sheet T-1 and Detail #605 (See also TLTM[2], Section 3.3 for additional information).

For Projects with Activity or Grading Within the TPZ of a Protected Tree, A Tree Preservation Report is required and must be included in the T-1 set.

I, the undersigned, agree to the conditions of this disclosure. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement constitutes a violation of the Palo Alto Municipal Code Section 8.10.040, which can lead to criminal and/or civil legal action. (Note: Applicants signing for ADU only projects will not be penalized for incorrect reporting of tree size or identification of tree species.)

Signature: NB Print: **Nathan Basista** ISA#: **WE-15570** Date: **12-17-2024**

[1] **Protected Trees** - Includes any trees belonging to the following categories: **a) Public Trees (Street Trees)** - Trees growing in the city right of way or on public property; **b) Protected Native Species Trees** - Bigleaf Maples, Incense Cedars, Coast Live Oaks, Blue Oaks, CA Black Oaks or Valley Oaks which are 11.5" in diameter or larger and Coast Redwoods which are 18" in diameter or larger, when measured 54" above natural grade; **c) Protected Mature Trees** - All other species of trees with DBH of 15" or larger when measured 54" above natural grade (Excluding invasive species and high water users); d) Heritage Trees - Individual trees designated by City Council (See Heritage Tree List); and **e) Designated Trees** - mitigation trees or commercial and non-residential property trees, which are/were part of an approved landscape plan.

[2] Palo Alto Tree and Landscape Technical Manual (TLTM) contains instructions for all requirements on this form. It is available on our website at: https://www.cityofpaloalto.org/treeordinance

Revised 2/14/2024

CITY OF PALO ALTO
Urban Forestry Section
Development Review
trees@cityofpaloalto.org

LANDSCAPE DISCLOSURE STATEMENT

THIS FORM MUST BE COMPLETED FOR ALL PROJECTS INCLUDING LANDSCAPING

Palo Alto Municipal Codes, Chapters 12.32.040, 16.14, and 18.40.130 requires compliance with the State Model Water Efficient Landscape Ordinance (MWELO). Disclosure of square footage of landscaped area for all projects will assist both the applicant and the city with compliance and reporting requirements. Refer to the city's MWELO Submittal & Guidelines document for further details.

PROPERTY ADDRESS: 929 Laurel Glen Drive, Palo Alto, CA 94304

1. **Is there any new or rehabilitated landscape area included in this project?**

   ☒ **YES** (continue form) ☐ **NO** (form requirements complete)

2. If new landscape is included, enter the square footage: New Landscape square footage* = 3200 SF

   *If the square footage of new landscaping is greater than 500 square feet the project will need to submit MWELO documentation.

3. If rehabilitated landscape is included, enter the square footage: Rehabilitated Landscape* = 0 SF

   *If the square footage of rehabilitated landscaping is greater than 2500 square feet the project will need to submit MWELO documentation.

4. Enter the total combined square footage of all landscaping included in the project*= 3200 SF

   *If the total square footage of all landscaping is greater than 2500 square feet the project will need to submit MWELO documentation.

I, the undersigned, agree that the above information is accurate and complete. I understand that knowingly or negligently providing false or misleading information in response to this disclosure requirement may delay project approval.

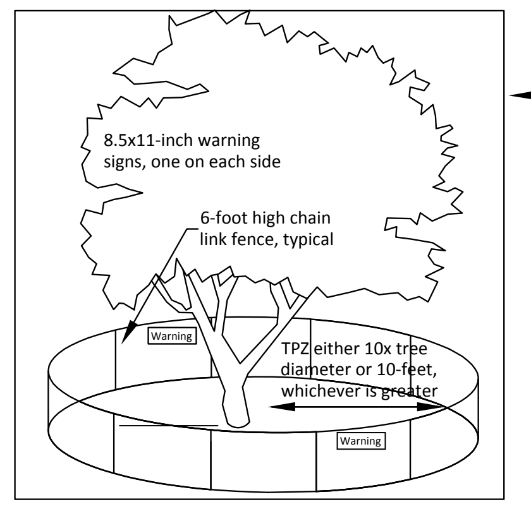
Signature: Likun Cao Print: Likun Cao Date: 12/18/2024

Revised 09/26/2023

For written specifications associated with illustrations below, see Public Works Specifications Section 31. Detailed specifications are found in the Palo Alto Tree & Landscape Technical Manual (TTM) (www.cityofpaloalto.org/trees)

Tree Protection Zone (TPZ) shown in gray (radius of TPZ equals 10-times the diameter of the tree or 10-feet, whichever is greater).

- Restricted activity area - see Tree & Landscape Technical Manual Sec 3.3.52(A)
- Restricted trenching area - see Tree & Landscape Technical Manual Sec 3.3.52(D-F), any proposed trench or form work within TPZ of a protected tree requires approval from Public Works Operations. Call 650-496-5953.

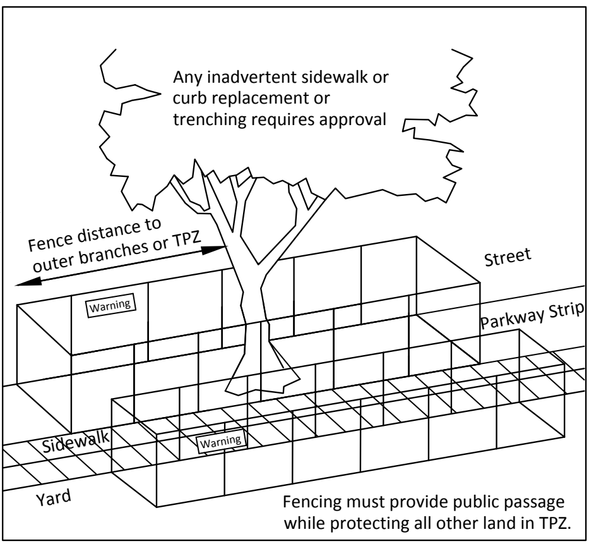


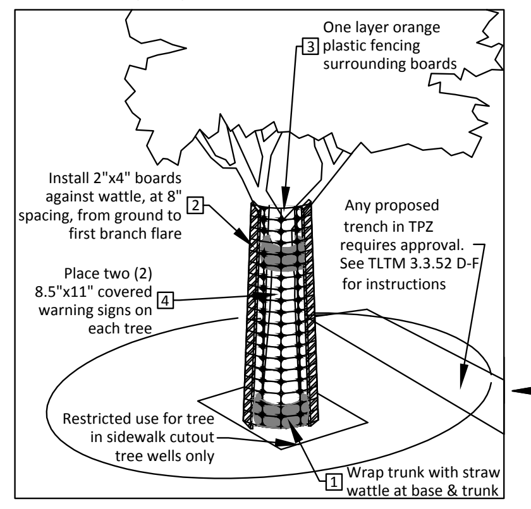
Type I Tree Protection: Layout configuration applies to all Protected Trees, matching the site diagram with the tree preservation report (TPR) distances written for this project. Fencing should be shown on plans as it will be installed. A curved fence for a TPZ is generally not practical.

Inspection pass/fail is dependent on correct layout and mounted sign placard.

Place two (2) 8.5"x11" covered warning signs at each tree.

Type II Tree Protection: Layout configuration applies to all parkway strip or public trees near sidewalk.





Type III Tree Protection: Layout for trunk protection applies to all Protected Trees when exclusively authorized for sidewalk cut-out. To be used only with approval from Public Works Operations.

Required protection shall be executed before demolition, excavation or site work occurs.

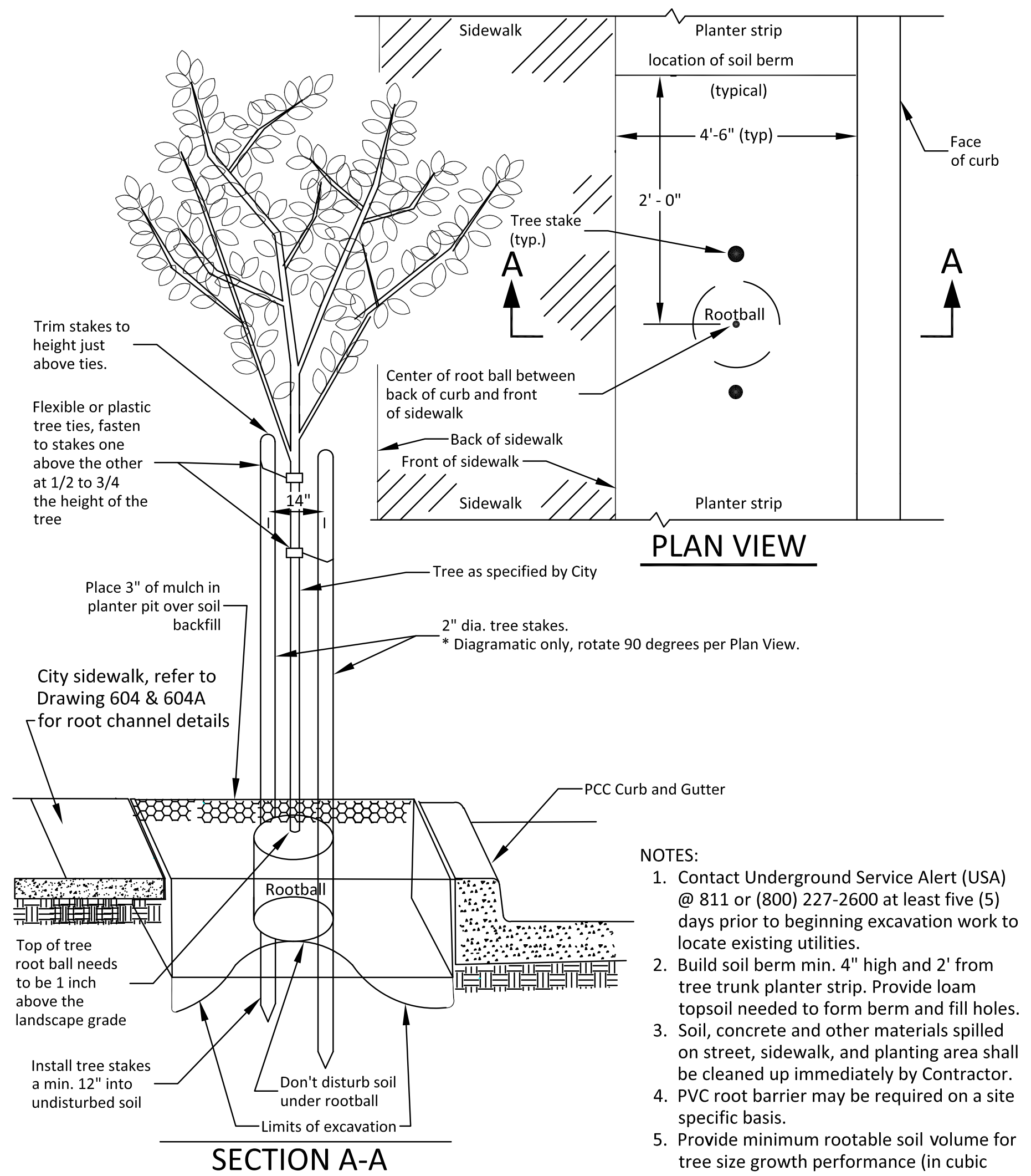
Rev	By	Date
1	DD	08/10/06
2	JGH	06/02/16
3	RTN	05/22/17
4	PGG	02/14/24

Scale: NTS

Tree Protection
During Construction

City of Palo Alto Standard

Approved by: P. GOLLINGER
PE No. ISA-WE: 7320BM
Date 02/14/2024
Dwg No. 605



SECTION A-A

Backfill with a mixture of mixed original soil and approved loam topsoil around root ball and water at time of planting.

NOTES:

1. Contact Underground Service Alert (USA) @ 811 or (800) 227-2600 at least five (5) days prior to beginning excavation work to locate existing utilities.
2. Build soil berm min. 4" high and 2' from tree trunk planter strip. Provide loam topsoil needed to form berm and fill holes.
3. Soil, concrete and other materials spilled on street, sidewalk, and planting area shall be cleaned up immediately by Contractor.
4. PVC root barrier may be required on a site specific basis.
5. Provide minimum rootable soil volume for tree size growth performance (in cubic feet): Large: 1,200 cu.ft. Medium: 800 cu.ft. Small: 400 cu.ft.

Rev	By	Date
1	Ron L	04/15/03
2	JT	08/14/06
3	HQN	03/19/07
4	RTN	06/11/17

Scale: NTS

Tree Detail
Planter Strip

City of Palo Alto Standard

Approved by:
PE No. 72158
Date 01/10/18
Dwg No. 603

URBAN FORESTRY STANDARD CONDITIONS

The following conditions and/or standard Municipal Code requirements are provided for supplemental guidance, recommendation and/or best practices. Any applicable items shall be addressed in any permit application such as a Building Permit, Excavation and Grading Permit, Certificate of Compliance, Street Work Permit, Encroachment Permit, etc.

TREE PROTECTION COMPLIANCE: The owner and contractor shall implement all protection and inspection schedule measures, design recommendations and construction scheduling as stated in the Tree Preservation Report and/or Sheet T-1 and is subject to code compliance action pursuant to PAMC 8.10.080. The required protective fencing shall remain in place until final landscaping and inspection of the project.

PLAN CHANGES: Revisions and/or changes to plans before or during construction shall be reviewed and responded to by the (a) project site arborist, or (b) landscape architect with written letter of acceptance before submitting the revision to the Development Services Department for review by Planning, Public Works or Urban Forestry.

TREE DAMAGE: Tree Damage, Injury Mitigation and Inspections apply to the Contractor. Reporting, injury mitigation measures and arborist inspection schedule apply pursuant to TLTM, Section 5.3. Contractor shall be responsible for the repair or replacement of any publicly owned or protected trees that are damaged during the course of construction, pursuant to Title 8 of the Palo Alto Municipal Code, and city Tree and Landscape Technical Manual, Section 3.3.5 - 4.

URBAN FORESTRY GENERAL: The following general tree preservation measures apply to all trees to be retained: No storage of material, topsoil, vehicles or equipment shall be permitted within the tree protection zone (TPZ). The ground under and around the tree canopy area shall not be altered. No waste material or construction byproducts allowed within the TPZ. Trees to be retained shall be irrigated, aerated and maintained as necessary to ensure survival.

EXCAVATION RESTRICTIONS APPLY - TLTM, Sec. 3.3.5 - 2e: Any approved grading, digging or trenching beneath a tree canopy shall be performed using 'air-spade' method as a preference, with manual hand shovel as a backup. For utility trenching, including sewer line, roots exposed with diameter of 1.5 inches and greater shall remain intact and not be damaged. If directional boring method is used to tunnel beneath roots, then CPA Standard Detail #504 shall be printed on the final plans to be implemented by Contractor. Any excavation within 10-feet of street trees must be approved in advance by the Urban Forestry Section at (650) 496-5953.

NO NET LOSS OF CANOPY: In order to comply with the city's no net loss of canopy policy (PAMC 8.10.055; Urban Forest Master Plan Goals 6.A, 6.B, & 6.C; Comprehensive Plan, Natural Environment Chapter Goal N-2) all trees 4" DBH and larger are subject to replacement to avoid a loss of canopy at the neighborhood level. Replacement ratios are determined by table 4-2 in the Tree and Landscape Technical Manual, Section 4.3. New landscape tree plantings (24" box or larger) count towards the replacement total. Screening trees may also count toward the total depending on size and species selected. If unable to plant the required number of trees on site (our preferred solution) there is the option of paying in-lieu fees per each 24" box tree into the forestry fund. [Note: Replacement at 1:1 ratio for trees listed as exempt species under PAMC 8.10.020 is recommended but not required.]

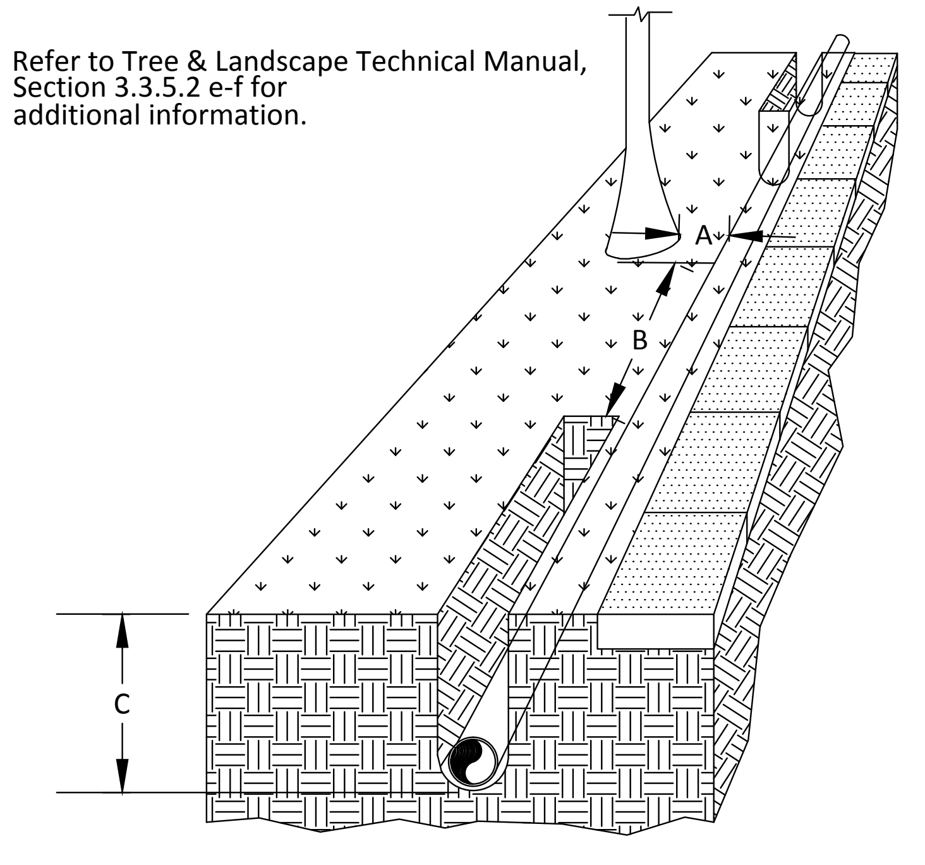
PLAN SET REQUIREMENTS: The final Plans submitted for a building permit shall include the location, DBH, and drip-line of all trees 4" DBH or greater as well as the following information and notes on relevant plan sheets:

a. SHEET T-1, The building permit plan set will include the City's full-sized, Sheet T-1 (Tree Protection-it's Part of the Plan!), available on the Development Center website. A certified arborist shall complete and sign the Tree Disclosure Statement.

b. TREE PRESERVATION REPORT (TPR), if indicated by Tree Disclosure Statement, All sheets of the Applicant's TPR approved by the City for full implementation by Contractor, shall be printed on numbered Sheet T-1 (T-2, T-3, etc.) and added to the sheet index.

c. TREE PROTECTION FENCING, The Plan Set (esp. site, demolition, grading & drainage, foundation, irrigation, tree disposition, utility sheets, etc.) must delineate/show the correct configuration of Type I, Type II or Type III fencing around each Protected Tree, using a bold dashed line enclosing the Tree Protection Zone (CPA Standard Detail #605).

NOTE: Refer to Tree & Landscape Technical Manual, Section 3.3.5.2 e-f for additional information.



Tree trunk diameter	Distance of bore from each side of treetrunk "A"	Distance of open trench from tree-trunk "B"	Depth of bore or trench "C"
in	in	ft	ft
2	2	3	3.00
3	3	6	3.25
6	5	10	3.33
12	6	12	3.67
18	7	14	4.00
24	8	16	4.33
30	9	18	4.67
36	10	20	4.83
42	12	22	5.00

Rev	By	Date
1	MMN	3/15/05
2	JT	08/14/06
3	RTN	06/11/17
4	PGG	11/23/22

Scale: NTS

Utility Trenching
Near Trees

City of Palo Alto Standard

Approved by:
PE No. 72158
Date 01/10/18
Dwg No. 504

PROJECT SPECIFIC REQUIREMENTS

TO BE FILLED OUT BY APPLICANT AT DIRECTION OF UF STAFF

The following conditions, inspection schedules or reporting requirements will be required when checked by city staff during Urban Forestry Review of development applications.

- ☐ **PSR1 - TREE PROTECTION VERIFICATION INSPECTION REQUIRED:** Prior to any site work, contractor must call Uriel Hernandez at 650-690-0258 to schedule an inspection of any required protective fencing. The fencing shall contain required warning sign and remain in place until completion of urban forestry final inspection.
- ☐ **PSR2 - MWELO INSPECTION REQUIRED:** Prior to building final, applicant must contact Urban Forestry at trees@cityofpaloalto.org for landscape final (MWELO Inspection). Call once irrigation and landscaping are installed to plan, and irrigation controller is scheduled. See MWELO guidelines for details on any required third party water audits.
- ☐ **PSR3 - TREE PERMIT REQUIRED**: Plans indicate that protected trees will be removed as part of this project. Please contact Urban Forestry at trees@cityofpaloalto.org to obtain a Protected Tree Removal Permit to ensure that the project complies with PAMC 8.10.050.
- ☐ **PSR4 - PROJECT ARBORIST:** The property owner shall hire a certified arborist to ensure the project conforms to all Planning and Urban Forestry conditions related to landscaping/trees.
- ☐ **PSR5 - PROJECT ARBORIST CERTIFICATION LETTER:** When required, a letter certifying that the project arborist has reviewed the building permit plan set with regards to trees as well as the Urban Forestry Conditions of Approval, and that all requirements have been met. The letter also confirms that any required site monitoring inspections and reporting have been arranged with the contractor or owner. Project Arborist Certification Letters should be included as supporting documents when submitting an application for a building permit that required prior approval through Planning (See Project Arborist Certification Letter, TLTM Section 5.3.5).
- ☐ **PSR6 - MONTHLY ARBORIST INSPECTIONS:** The project arborist shall perform monthly inspections to monitor changing conditions and tree health. The Urban Forester shall be in receipt of an inspection summary during the first week of each calendar month or, immediately if there are any changes to the approved plans or protection measures (see Monthly Inspection Report, TLTM Section 5.3.6).
- ☐ **PSR7 - SPECIAL ACTIVITY WITHIN THE TREE PROTECTION ZONE:** Work in this area (TPZ) of a protected tree requires the direct on-site supervision by the project arborist (see Trenching, Excavation and Equipment, TLTM Section 3.3.5-2e).
- ☐ **PSR8 - SPECIAL ACTIVITY WITHIN STREET TREE TPZ**: Work in the Tree Protection Zone of a city tree requires an inspection by a city staff arborist before cutting of any roots greater than 2 inches in diameter. It is highly recommended that the project arborist provides the direct on-site supervision (see Trenching, Excavation and Equipment, TLTM Section 3.3.5-2e).

---WARNING---
Tree Protection Zone

This fencing shall not be removed without City Arborist approval (650-496-5953)

Removal without permission is subject to a $500 fine per day*

****Palo Alto Municipal Code Section 8.10.110***

Apply Tree Preservation Report on sheet(s) T-2 when required

Use additional "T" sheets as needed

VRCHITECTS
833-262-2208
VRchitects.com
908 Industrial Ave
Palo Alto, CA 94303
office@VRchitects.com

908 Industrial Ave Palo Alto CA 94303
844-400-7212
www.VRchitects.com

929 Laurel Glen Drive, Palo Alto, CA
929 Laurel Glen Drive
Palo Alto , CA 94304

Project Number: Project Number

Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on extensions of the project, or other projects, except by agreement in writing and appropriate compensation to the Architect.

The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the project.

LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Tree Protection & Removal Plan

A04

Printed: 12/19/2024

MOKI SMITH ARBORIST

mokismitharborist@gmail.com

408-722-8942

11/20/2024

Licensed Arborist - W. M. Smith
WE-13625A

Arborist Report

Site Address - Laurel Canyon Drive, Palo Alto 94304
Site Visit - November 12th, 2024

Licensed arborist William Smith visited the property located at Laurel Canyon Drive, Palo Alto 94304, in order to identify and assess all trees that are presently located on the subject property or on the adjacent properties that could be affected by development on the subject property.

The trees included in this tree inventory are coast live oak (*Quercus agrifolia*), blue oak (*Quercus douglasii*), Bay laurel (*Laurus nobilis*) and Valley oak (*Quercus lobata*). Within this report you will find key data pertaining to each individual tree, their conditions, and locations.

Respectfully Submitted,

William Smith

Table of Contents

Report Contents:

1. **Tree Survey Data:**
    - Tag numbers, species, trunk diameters (DBH), approximate tree heights, approximate canopy spreads, and overall conditions.
    - Visual assessment and specific observations to highlight specific tree health and structural issues.
2. **Protected Tree Analysis:**
    - Analysis to determine the number of trees that are considered protected.
    - Assessment of trees protected under San Jose's Tree Ordinance.
3. **Tree Protection Plan:**
    - Outline of preservation measures for trees that will remain on-site during development.
    - Assessment of development impacts on the trees that are protected under San Jose's Tree Ordinance

Project Location:

The project site consists of the parcel of land located north of Laurel Glen Drive. This property is considered an oak woodland, as it is dominated by native oak species such as Coast Live Oak (*Quercus agrifolia*), Valley Oak (*Quercus lobata*), and Blue Oak (*Quercus douglasii*).

Survey Methods:

The tree survey and inventory were conducted by ISA certified arborist W. M. Smith (Certification #WE-13625A), with a focus on assessing all trees with a single main stem diameter at breast height (DBH) of 5 inches or more, or co-dominant stems with a combined DBH of at least 6 inches. This survey included all trees located on the specified parcel, within 100 feet of the proposed development. It was determined that none of the trees in this survey are classified as heritage trees under the City of Palo Alto's guidelines, nor are they considered orchard trees cultivated for commercial purposes. This assessment provides a comprehensive overview of each tree's current health, structural condition, and potential impact within the context of the proposed site development.

The following data was collected for each tree:

- **Trunk Diameter:** Measured at 54 inches above grade (DBH).
- **Tree Species:** Identified based on observed characteristics.
- **Tree Height:** Approximate measurements taken visually.
- **Canopy Spread:** Approximate measurements taken visually.
- **General Condition:** Based on a visual assessment - no coring, lab testing, or aerial inspection were employed.

Tree Condition and Structure:

A visual assessment of health and structure were used to assign a general condition rating for each tree. The evaluation of the trees surveyed in this report was limited to a visual inspection of accessible parts without dissection, excavation, probing, or coring. There is no guarantee that additional problems or defects in the trees may not arise in the future.

Refer to the following scale for general condition:

Good: 75%-100% healthy foliage, free of major defects, good form and function for the location.

Fair: 35-75% healthy foliage, moderate defects that may compromise the function or form of the tree overtime if left un-treated.

Poor: Less than 35% of healthy foliage and significant defects resulting in a low life expectancy.

This assessment includes 63 trees, with the majority rated in *Fair* condition due to both health and structural challenges from lack of proper maintenance. Trees in this category generally exhibit some vigor in foliage and growth, though they have minor to moderate defects that impact their structural stability and long term health, such as co-dominant stems, moderate leans, the presence of included bark, or decay cavities. These moderate defects contribute to a reduced suitability for preservation under current site conditions. A smaller subset of trees has been classified in *Poor* condition, showing significant decline in health and structural integrity, often due to past damage, disease, or inadequate previous maintenance. Only a few trees have received a *Good* condition rating, distinguished by healthy, dense foliage and an absence of significant structural or health defects. These trees represent the best preservation candidates, as they are expected to continue thriving with minimal intervention. The findings suggest that, while a number of trees contribute positively to the site, the majority will require management or removal due to their compromised condition.

Tree Structure:

Good: Minor structural flaws that may be corrected through pruning. Tree has an upright trunk and a single trunk tapering to a single leader at the top. Most scaffold branches are smaller than the leader, attached to the trunk at angles approaching 45 degrees and are spaced apart on the trunk both vertically and radially. Structure does not contain included bark {bark inside the juncture of multiple trunks). No sign of previous branch failures. Foliage is evenly distributed on the limbs. Symmetrical or mostly symmetrical canopy.

Fair: Some structural flaws not correctable through pruning. Tree may have more than one trunk or leader, trunk may have a slight lean. Scaffold branches may be attached at angles less than 30 degrees and/or may be crowded on the trunk. Structure may have included bark, previous branch failures or end-heavy limbs. Some asymmetry in the canopy.

Poor: Significant structural flaws not correctable through pruning. Significant dead wood or decay. More than one trunk or leader and/or branches crowded together on the trunk. Significantly end-heavy limbs may be present. Structure may contain significant included bark, previous branch failures and/or asymmetry. Precipitous lean may be present. Tree is likely to be hazardous.

Inventory Results:

Moki Smith Arborist surveyed a total of 63 trees across the parcels that are included in the proposed development project. This tree inventory includes all of the significant trees that are located within 100 feet of the proposed development. All of the trees present within the parameters of this survey are considered indigenous species. The indigenous species includes forty blue oaks (*Quercus douglasii*), eighteen coast live oaks (*Quercus agrifolia*), and four valley oaks (*Quercus lobata*). Protected trees are noted in the inventory tree table. There are no fruit or orchard trees located on the parcel, and none of these trees are used for commercial purposes. Of the trees included in this report 55 are considered protected under Palo Alto City Ordinance. There are no invasive or non-indigenous trees located on the property within the parameters included in this report.

Suitability for Preservation:

In assessing the trees' suitability for preservation, several factors were considered:

1. **Health:** Healthy trees are better equipped to tolerate development impacts, such as soil compaction and changes in moisture.
2. **Structural Integrity:** Trees with significant decay or structural defects increase the likelihood of failure, which can increase the possibility that the tree poses a threat or hazard, particularly in areas near people or property.
3. **Species Response:** Certain species, such as those accustomed to the native environment, are more tolerant of development impacts than non-native species which may require different environmental conditions to prosper (such as increased irrigation).
4. **Age and Longevity:** Older trees may be less adaptable to development impacts and root damage/loss, while younger trees have greater capacity for regeneration and adjustment.

The suitability for preserving the 63 trees located on this development site in Palo Alto varies due to several factors. While 55 of these trees are considered protected, many of the trees have less preservation value due to structural and health issues. These defects include multiple co-dominant stems that emerge from low or below-ground main crotches, and the presence of included bark, which increases structural risk as the trees mature. This is compounded by poor structure, with many trees leaning toward light sources, which predisposes them to failure under extreme weather conditions such as high winds or heavy rainfall.

Additionally, several of the oaks exhibit moderate decay on their main stems, a result of unaddressed damage from lost major limbs or fungal diseases infecting tissue of the main stem.

To ensure the longevity and structural integrity of the oak trees slated for preservation, targeted pruning should be undertaken. This includes the removal of large deadwood to minimize potential hazards and promote tree health. Structural pruning is recommended to enhance canopy balance, reduce stress on weak or vulnerable branches, and lower the risk of structural failure, particularly under adverse weather conditions. These efforts not only improve safety but also support the tree's ability to thrive in the landscape while maintaining its ecological and aesthetic value. Proper pruning should adhere to ANSI A300 standards to minimize damage and promote optimal healing of pruning wounds.

Some of the oak trees on the site exhibit signs of fungal diseases affecting their foliage and stems, which could pose a risk to their overall health if not addressed. To mitigate the spread of these fungal pathogens, a proactive treatment plan is recommended, including the application of appropriate fungicides as determined by further diagnostic analysis. Additionally, these trees should be fertilized to optimize soil health and enhance the trees' vigor, increasing their natural resistance to infections and diseases. Improving cultural practices such as proper irrigation and mulch application can further reduce stress on the trees and support their recovery. These measures should be implemented under the guidance of a certified arborist to ensure their effectiveness and adherence to best practices.

The majority of the trees located on the subject property are native Coast live oaks (*Quercus agrifolia*), Blue oaks (*Quercus Douglasii*), and Valley oaks (*Quercus lobata*) which show a high potential for successful preservation, due to their native status and natural adaptation to local conditions. These trees are likely to thrive long-term on this site if proper maintenance and cultural care are preformed.

Protected Trees:

Palo Alto Tree Ordinance

8.10.010 Purpose.

The purpose of this chapter is to protect specified trees located on private property within the city, and establish standards for removal, maintenance, and planting of trees and landscaping. In establishing these procedures and standards, the city recognizes that trees and landscaping are an essential part of the city's infrastructure. Their benefits include promoting the health, safety, welfare, and quality of life of the residents of the city; addressing climate change by sequestering carbon and providing a cooling effect; reducing air, water, and noise pollution; preventing soil erosion and stormwater runoff; providing wildlife habitat; and enhancing the aesthetic environment. It is the city's intent to encourage both the preservation of trees and the proactive incorporation of trees and their benefits within development.

"Protected" tree includes the three species that were already protected as well as additional native tree species and all trees above specified minimum diameters, except high water users and invasive species. [§8.10.020(l)]

Species	Updated Ordinance	Previous Ordinance
Coast live oak	11.5 inches	11.5 inches
Valley oak	11.5 inches	11.5 inches
Coast redwood	18 inches	18 inches
Bigleaf maple	11.5 inches	
Blue oak	11.5 inches	
California black oak	11.5 inches	
California incense cedar	11.5 inches	
Others except invasive species and high water users	15 inches	

8.10.050 Removal of protected trees.

It shall be a violation of this chapter for anyone to remove or cause to be removed a protected tree, except pursuant to a protected tree removal permit issued under Section 8.10.140 consistent with the following:

(a) In the absence of proposed development:

(1) A protected tree shall not be removed unless the urban forester grants a protected tree removal permit, or on parcels zoned other than single-family (R-1) or low density residential (RE, R-2, or RMD), the director of planning and development services authorizes the removal through staff level architectural review pursuant to Section 18.76.020(b)(3), having determined, on the basis of a tree report prepared by a designated arborist and other relevant information, that treatments or corrective practices are not feasible, and that the tree should be removed because any of the following apply:

(i) It is dead, is hazardous, or constitutes a public nuisance under Section 8.04.050 of this code.

(ii) It is a detriment to or is crowding an adjacent protected tree.

(iii) It is at risk for retrenchment or other tree decline coping processes or does not conform with right tree in the right place principles.

(iv) It is impacting the foundation or eaves of a residence, or any covered parking required under Title 18 of this code.

(2) In the event a protected tree is removed pursuant to a protected tree removal permit granted under this subsection (a), a temporary moratorium on development of the subject property may be issued by the urban forester for up to twenty-four months or by, the director of planning and development services, in consultation with the urban forester, for up to thirty-six months, from the date the tree removal occurred. Completion of required mitigation measures included in the tree removal permit does not remove or shorten any such moratorium. A moratorium may be terminated early with approval of the urban forester or director of planning, and development services, as applicable, and may require additional mitigation measures. Mitigation measures included in the protected tree removal permit and any additional mitigation measures required to shorten a moratorium shall be imposed as a condition of any subsequent permits for development on the subject property.

(b) In the case of any development on a single-family (R-1) or low density (RE, R-2, or RMD) residential zoned parcel, other than in connection with a subdivision, a protected tree shall not be removed unless the tree is proposed for removal to accommodate an ADU constructed pursuant to Section 18.09.030, or because removal is necessary to allow an ADU constructed pursuant to Section 18.09.040 to achieve the minimum standards set forth in state law, or it is determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that any of the following apply:

(1) The tree is so close to the proposed development that construction would result in the death of the tree, and there is no financially feasible design alternative that would permit preservation of the tree, where financially feasible means an alternative that preserves the tree unless retaining the tree would increase project cost by more than twice the reproduction cost of the tree or ten percent of the given project valuation, whichever is greater.

(2) Retention of one or more trees would result in reduction of the otherwise-permissible buildable area of the lot by more than twenty-five percent, and there is no financially feasible design alternative that would allow for preservation of the tree(s). For the purposes of this subsection (a)(2), a financially feasible design alternative means a design alternative that preserves the tree(s) and would not increase the project cost by more than twice the reproduction cost of the tree(s) or ten percent of the given project valuation, whichever is greater. All tree protection zones impacting buildable area are included in the reduction of buildable area calculation.

(3) The tree could be removed due to the conditions listed in Section 8.10.050(a)(1)(i), (ii), or (iii) and treatments or corrective practices are not feasible.

(c) In the case of development involving a proposed subdivision of land into two or more parcels, a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that either of the following apply:

(1) Removal is unavoidable due to restricted access to the property or deemed necessary to repair a geologic hazard (landslide, repairs, etc.), in which case only the protected tree or trees necessary to allow access to the property or repair the geologic hazard may be removed.

(2) The tree could be removed due to the conditions listed in subsection (a)(1)(i), (ii), or (iii) and treatments or corrective practices are not feasible.

(d) In the case of development requiring planning approval under Title 18, and not included under subsections (b) or (c), a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that any of the following apply:

(1) Retention of one or more trees would result in reduction of the otherwise-permissible buildable area of the lot by more than twenty-five percent, and there is no financially feasible design alternative that would permit preservation of the tree(s), where financially feasible means an alternative that preserves the tree(s) unless retaining the tree(s) would increase project cost by more than twice the reproduction cost of the tree or ten percent of the given project valuation, whichever is greater. All tree protection zones impacting buildable area are included in the reduction of buildable area calculation.

(2) The tree should be removed because it is dead, hazardous, or constitutes a public nuisance under Section 8.04.050. In such cases, the tree protection zone of the removed tree, or an equivalent area on the site, shall be preserved for mitigation purposes from development of any structure.

(3) Discretionary development review determines that the final project follows right tree in the right place principles and would result in a net tree canopy increase on the property within fifteen years, and replacement of trees, shrubs, and plants either:

(i) Is consistent with Urban Forest Master Plan Goal 2: "Re-generated native woodland and riparian landscapes as the key ecological basis of the urban forest with focus on native species and habitat," or

(ii) Uses climate adaptive, drought tolerant species.

(e) In any circumstance other than those described in subsections (a), (b), (c), or (d), a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that the tree is dead, is hazardous, or constitutes a public nuisance under Section 8.04.050.

8.10.055 Tree replacement.

(a) In the event a protected tree is removed pursuant to Section 8.10.050(a)(1)(i), mitigation for the removed tree, replacement tree ratio, in lieu fees, or a combination thereof shall be determined by the urban forester, based on factors including but not limited to the species, size, location, and specific reason for removal of the protected tree, in accordance with the standards and specifications in the *Tree and Landscape Technical Manual*.

(b) In the event a protected tree is removed pursuant to Section 8.10.050 (a)(1)(ii), (iii), or (iv), (b), (c), (d), or (e), the tree removed shall be replaced in accordance with the standards and specifications in the *Tree and Landscape Technical Manual*, including but not limited to prioritization of locally native species, satisfaction of right tree in the right place principles, and incorporation of a secondary goal of net tree canopy increase on the property within fifteen years. The urban forester shall approve the number, species, size, and location of replacement trees.

Indigenous species:

The following trees are considered indigenous:

Coast live oak, Valley oak, Coast redwood, Big leaf maple, Blue oak, California black oak, California incense cedar, and Blue oak.

Potential Impacts:

The proposed development will necessitate the removal of several oak trees located directly within the construction footprint to accommodate the property structures. For the trees designated for retention, it is critical to implement protective measures to minimize construction-related impacts. Tree protective fencing must be installed around the drip-line of each retained tree to safeguard the main stems, canopies, and critical root zones from damage caused by heavy machinery and soil compaction. The fencing should be robust, highly visible, and remain in place for the duration of the project. Additionally, a detailed tree protection plan, including guidelines for permitted activities within the protected zones and measures for addressing inadvertent damage, is provided at the end of this report. Adherence to these measures is essential to ensure the health and preservation of the retained trees

Prepared by:

W. M. Smith (ISA Certified Arborist #WE 13625A)

Moki Smith Arborist

408-722-8942

Mokismitharborist@gmail.com

Tree Inventory Table

Tree Tag ID	Common Name	Species	D.B.H.	Height	Crown Spread	Condition	Protected
1	Blue Oak	*Quercus douglasii*	19	38	30	Fair	Yes
2	Blue Oak	*Quercus douglasii*	17	40	30	Fair	Yes
3	Coast Live Oak	*Quercus agrifolia*	19/17/16	40	40	Fair	Yes
4	Blue Oak	*Quercus douglasii*	15	45	20	Fair	Yes
5	Coast Live Oak	*Quercus agrifolia*	13/15	38	30	Good	Yes
6	Blue Oak	*Quercus douglasii*	24	45	40	Fair	Yes
7	Blue Oak	*Quercus douglasii*	15/11/11	40	50	Fair	Yes
8	Coast Live Oak	*Quercus agrifolia*	19	40	30	Poor	Yes
9	Coast Live Oak	*Quercus agrifolia*	24	50	35	Fair	Yes
10	Valley Oak	*Quercus lobata*	11	25	20	Fair	No
11	Blue Oak	*Quercus douglasii*	21	55	30	Poor	Yes
12	Coast Live Oak	*Quercus agrifolia*	29/23	25	30	Poor	Yes
13	Coast Live Oak	*Quercus agrifolia*	14/11	30	25	Fair	Yes
14	Coast Live Oak	*Quercus agrifolia*	7	25	15	Fair	No
15	Coast Live Oak	*Quercus agrifolia*	22	45	35	Fair	Yes
16	Coast Live Oak	*Quercus agrifolia*	18	45	30	Fair	Yes
17	Coast Live Oak	*Quercus agrifolia*	24	45	40	Good	Yes
18	Coast Live Oak	*Quercus agrifolia*	8/18/17	50	50	Fair	Yes
19	Coast Live Oak	*Quercus agrifolia*	7/20/9	40	45	Fair	Yes
20	Coast Live Oak	*Quercus agrifolia*	17	25	20	Fair	Yes
21	Coast Live Oak	*Quercus agrifolia*	14	35	25	Fair	Yes
22	Blue Oak	*Quercus douglasii*	16	30	30	Fair	Yes
23	Blue Oak	*Quercus douglasii*	14	35	25	Fair	Yes
24	Blue Oak	*Quercus douglasii*	22	40	35	Fair	Yes
25	Valley Oak	*Quercus lobata*	10/13	35	35	Fair	Yes
26	Coast Live Oak	*Quercus agrifolia*	14	30	35	Fair	Yes
27	Coast Live Oak	*Quercus agrifolia*	11/15/14/12	35	50	Fair	Yes
28	Blue Oak	*Quercus douglasii*	21	45	40	Fair	Yes
29	Blue Oak	*Quercus douglasii*	17	40	35	Fair	Yes
30	Blue Oak	*Quercus douglasii*	20	45	30	Fair	Yes
31	Blue Oak	*Quercus douglasii*	11/14	40	35	Fair	Yes
32	Bay Laurel	*Laurus nobilis*	7	15	10	Fair	No
33	Blue Oak	*Quercus douglasii*	14	35	25	Poor	Yes
34	Blue Oak	*Quercus douglasii*	14	40	30	Poor	Yes
35	Blue Oak	*Quercus douglasii*	15	40	30	Fair	Yes
36	Blue Oak	*Quercus douglasii*	18	40	30	Fair	Yes
37	Valley Oak	*Quercus lobata*	28	55	50	Fair	Yes
38	Blue Oak	*Quercus douglasii*	14	35	35	Fair	Yes
39	Blue Oak	*Quercus douglasii*	17	40	30	Fair	Yes
40	Blue Oak	*Quercus douglasii*	15	40	40	Fair	Yes
41	Blue Oak	*Quercus douglasii*	18	45	35	Fair	Yes
42	Blue Oak	*Quercus douglasii*	9	20	15	Fair	No
43	Blue Oak	*Quercus douglasii*	11/10	40	40	Fair	Yes
44	Blue Oak	*Quercus douglasii*	9	30	22	Fair	No
45	Blue Oak	*Quercus douglasii*	15	40	30	Fair	Yes
46	Blue Oak	*Quercus douglasii*	20	38	30	Fair	Yes
47	Blue Oak	*Quercus douglasii*	13	35	25	Fair	Yes
48	Blue Oak	*Quercus douglasii*	11	50	25	Fair	No
49	Blue Oak	*Quercus douglasii*	6	30	18	Fair	No
50	Blue Oak	*Quercus douglasii*	15	40	35	Fair	Yes
51	Blue Oak	*Quercus douglasii*	13	40	35	Fair	Yes
52	Coast Live Oak	*Quercus agrifolia*	21	45	35	Fair	Yes
53	Blue Oak	*Quercus douglasii*	11	25	20	Fair	No
54	Blue Oak	*Quercus douglasii*	23	40	35	Fair	Yes
55	Blue Oak	*Quercus douglasii*	25	45	40	Fair	Yes
56	Valley Oak	*Quercus lobata*	15/13	40	45	Fair	Yes
57	Blue Oak	*Quercus douglasii*	14	35	30	Fair	Yes
58	Blue Oak	*Quercus douglasii*	16	35	30	Fair	Yes
59	Blue Oak	*Quercus douglasii*	14	40	20	Fair	Yes
60	Blue Oak	*Quercus douglasii*	19	40	35	Fair	Yes
61	Blue Oak	*Quercus douglasii*	14	40	40	Fair	Yes
62	Blue Oak	*Quercus douglasii*	11	35	25	Fair	No
63	Coast Live Oak	*Quercus agrifolia*	21	45	40	Good	Yes

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Palo Alto , CA 94304

Project Number: Project Number

LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Arborist Report

A05

Printed: 12/19/2024

Assessment and Observations

Tree Tag# 1
This tree has a moderate lean in the southern direction due to competition for light. Mistletoe noted in the canopy.

Tree Tag# 2
This tree has a significant lean in the southern direction due to competition for light with neighboring oak trees. Minor die back noted in the canopy.

Tree Tag# 3
This tree has a significant lean in the southern direction due to competition for light with neighboring oak trees. Minor die back noted in the canopy.

Tree Tag# 4
Minor fungal damage noted on the foliage of this tree. This tree has a moderate south eastern lean due to competition for light with neighboring trees. Minor die back noted in the canopy.

Tree Tag# 5
This tree has two co-dominant uprights emerging from the first main crotch located approximately 24 inches above grade.

Tree Tag# 6
This tree has a slight southern lean due to competition for light with neighboring oak trees. Decay cavity noted on one co-dominant upright emerging from approximately 6 feet above grade up to approximately 10 feet above grade.

Tree Tag# 7
Fungal damage noted on the foliage of this tree. Moderate die back noted in the upper canopy. This tree has three co-dominant uprights emerging from a subterranean first main crotch.

Tree Tag# 8
This tree has evidence of a boring winged beetle noted on the southern side of the main stem frass located in the decay under the bark tissue. Decay cavity noted on the main stem emerging from approximately 10 inches above grade up to approximately 38 inches above grade.

Tree Tag# 9
This tree has two co-dominant uprights emerging from a first main crotch located approximately 40 inches above grade. Major cracking noted on the easternmost upright. This tree lost a third co-dominant upright on the western side of the tree, and a fourth co-dominant lateral upright on the western side of the tree

Tree Tag# 10
This tree has a significant western lean at approximately 20 feet above grade. Cavity noted on the southern side of the main stem approximately 8 feet above grade.

Tree Tag# 11
This tree has a south eastern lean. Fungal damage noted on the foliage. Moderate/significant die back noted in the canopy.

Tree Tag# 12
This tree has two co-dominant uprights emerging from a subterranean first main crotch. One of the uprights has a significant southern lean. The northernmost upright has been removed to approximately 12 feet above grade, epicormic growth is comprising the canopy of this upright. This tree has recently lost a major co-dominant upright, resulting in the loss of significant structural tissue.

Tree Tag# 13
This tree has two co-dominant uprights emerging from a first main crotch located approximately 6 inches above grade. One co-dominant upright has a significant southern lean. The second co-dominant upright has a significant western lean. Minor fungal damage on the foliage.

Tree Tag# 14
This tree has a significant southern lean.

Tree Tag# 15
This tree has a moderate southern lean noted, due to competition for light with neighboring oaks. Significant 10 inch lateral limb has been removed on the main stem years ago at approximately 6 feet above grade.

Tree Tag# 16
This tree has a significant southern lean due to competition for light with neighboring trees

Tree Tag# 17
This tree has a slight southern lean on the main stem due to competition for light.

Tree Tag# 18
This tree has two large co-dominant uprights emerging from the first main crotch located approximately 24 inches above grade. Included bark noted between the uprights. Northernmost upright has a significant northern lean. Minor die back noted in the canopy.

Tree Tag# 19
This tree has two large co-dominant uprights emerging from the first main crotch located approximately 24 inches above grade. Included bark noted between the uprights. Northernmost upright has a significant northern lean. Minor die back noted in the canopy.

Tree Tag# 20
This tree has a significant northern lean due to competition for light with neighboring oak trees.

Tree Tag# 21
Evidence of boring insect, entrance wounds on the southern side of the main stem up to approximately 10 feet above grade.

Tree Tag# 22
This tree has a very significant western lean.

Tree Tag# 23
This tree has the majority of its canopy comprised on the western side of the tree. Fungal fruiting bodies noted on the northern side of the main stem. Decay cavity present on the main stem at the root flare on the northern side of the tree.

Tree Tag# 24
This tree has moderate die back noted in the canopy. Minor fungal damage noted in the canopy. Multiple large lateral limbs have failed due to fungal disease. Fungal fruiting bodies noted on the canopy branches.

Tree Tag# 25
This tree has two co-dominant uprights emerging from a subterranean first main crotch, included bark noted between co dominant stems. Minor die noted in the upper canopy.

Tree Tag# 26
This tree has a minor northern lean due to competition for light with neighboring oak tree. Fungal damage noted on the foliage of this tree. Minor die back noted in the canopy of this tree.

Tree Tag# 27
This tree has multiple co-dominant uprights emerging from a first main crotch located approximately 6 inches above grade. One upright is emerging in the western direction, one in the northern direction, and two in the eastern direction.

Tree Tag# 28
This tree has moderate die back noted in the upper canopy. Multiple dead lateral limbs noted.

Tree Tag# 29
This tree has moderate die back noted in the canopy. Fungal disease noted on the foliage of this tree.

Tree Tag# 30
This tree has lost multiple limbs in the canopy due to fungal disease. Moderate die back noted in the canopy. Fungal damage noted on the foliage of the tree.

Tree Tag# 31
This tree has two co-dominant uprights emerging from the first main crotch located approximately 24 inches above grade. Fungal damage noted on the foliage of this tree. Moderate die back noted in the canopy.

Tree Tag# 32
This tree has multiple decay wounds on the main stem majority of the canopies, comprise the secondary growth

Tree Tag# 33
This tree has a moderate southern lean due to competition for light with neighboring oak trees. Galls noted on the stems of the canopy. Fungal damage noted on the foliage.

Tree Tag# 34
This tree has a slight southern lean. Fungal damage noted on the foliage of this tree. Minor decay cavities noted on the main stem due to loss of limbs.

Tree Tag# 35
This tree has a slight southern lean due to competition for light with neighboring oaks. Fungal damage noted on the foliage of this tree. Moderate die back noted in the canopy of this tree.

Tree Tag# 36
This tree has moderate die back noted in the upper canopy. Canopy has a slight southwestern lean.

Tree Tag# 37
This tree has two co-dominant uprights emerging from the first main crotch located approximately 8 feet above grade, included bark noted between these uprights. Fungal damage noted on the foliage of this tree. Moderate die back noted in the upper canopy.

Tree Tag# 38
This tree has a moderate north-eastern lean. Moderate die back noted in the canopy. Fungal damage noted on the foliage.

Tree Tag# 39
The canopy of this tree has a slight southern lean due to competition for light. Fungal damage noted on the foliage. Moderate die back noted in the canopy.

Tree Tag# 40
Canopy of this tree has a slight western lean. Fungal damage noted on the foliage. Moderate die back noted in the canopy.

Tree Tag# 41
This tree has a moderate south eastern lean. Fungal damage noted on the foliage of this tree. Moderate die back in the canopy.

Tree Tag# 42
This tree has a moderate northern lean on the main stem. Fungal damage noted on the foliage. Minor die back in the canopy.

Tree Tag# 43
This tree has two co-dominant uprights emerging from the first main crotch located approximately 40 inches above grade. Moderate die back noted in the canopy.

Tree Tag# 44
This tree extends in the eastern direction at approximately 15 feet above grade due to competition for light with neighboring oak tree. Moderate die back in the canopy.

Tree Tag# 45
This tree has fungal damage noted on the foliage. This tree has lost multiple lateral limbs. Moderate die back in the canopy.

Tree Tag# 46
This tree has a moderate southern lean. Two co-dominant upright emerged from the first main crotch located approximately 6 feet above grade. Moderate die back noted in the canopy.

Tree Tag# 47
This tree has a moderate eastern lean due to competition for light with neighboring oak trees. This tree has two co-dominant uprights, emerging from the first main crotch located approximately 7 feet above grade. Minor die back noted in the canopy.

Tree Tag# 48
This tree has a minor eastern lean. Fungal damage noted on the foliage. Moderate die back in the canopy.

Tree Tag# 49
Fungal damage noted on the foliage of this tree. Minor die back noted in the canopy.

Tree Tag# 50

This tree has a minor southern lean. Fungal damage noted on the foliage. Moderate die back noted in the canopy.

Tree Tag# 51
This tree has a minor southern lean due to competition for light. Fungal damage noted on the foliage. Moderate die back noted in the canopy.

Tree Tag# 52
This tree has a moderate southern lean. Minor die back noted in the canopy.

Tree Tag# 53
Moderate die back noted in the canopy of the tree. Fungal damage noted on the foliage of this tree.

Tree Tag# 54
This tree has a minor south eastern lean. Moderate die back noted in the canopy.

Tree Tag# 55
Minor die back noted in the canopy of this tree. Fungal damage noted on the foliage.

Tree Tag# 56
This tree has two co-dominant uprights emerging from a first main crotch located approximately 18 inches above grade. One co-dominant upright has a significant northwestern lean. Moderate die back noted in the canopy of this tree.

Tree Tag# 57
This tree has minor fungal damage noted on the foliage. Minor die back noted in the canopy. Minor decay wound on the base of the main stem on the northern side.

Tree Tag# 58
This tree has a minor south eastern lean on the main stem. Decay wound noted on the main stem on the northern side of the canopy. At approximately 45 inches above grade.

Tree Tag# 59
This tree has fungal damage noted on the foliage and minor die back in the canopy.

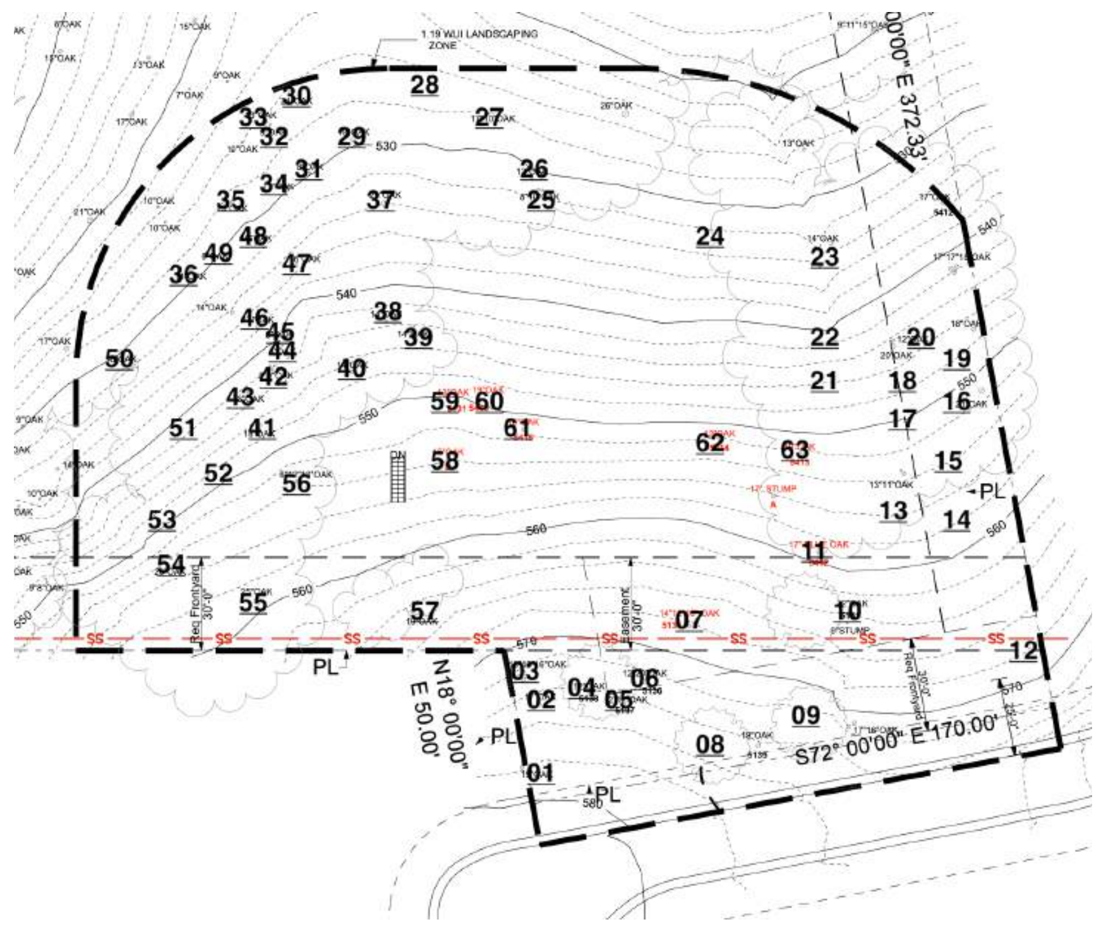
Tree Tag# 60
This tree has a decay cavity noted on the main stem of approximately 6 feet above grade up to approximately 10 feet above grade. Minor fungal damage noted on the foliage.

Tree Tag# 61
This tree has two co-dominant uprights emerging from the first main crotch located approximately 11 feet above grade. Canopy has a north eastern lean. Fungal damage noted on the foliage. Minor die back noted in the canopy.

Tree Tag# 62
This tree has a minor eastern lean. Fungal damage noted on the foliage of this tree. Minor die back noted in the canopy.

Tree Tag# 63
This tree has a minor northern lean.

Site Map



Tree Protection Measures for construction

- Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the 'drip-line' area of trees. Where root damage cannot be avoided, roots encountered (over 1" diameter) should be exposed approximately 12" beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Avoid tearing, or otherwise disturbing that portion of the root(s) to remain.
- Construct a temporary fence as far from the tree stem (trunk) as possible, and at least as far as the drip-line of the tree. This fencing should completely surround the tree. Post no parking or storage signs outside / on fencing. Do not attach posting to the main-stem of the tree.
- Do not allow vehicles, equipment, pedestrian traffic; building materials or debris storage; or disposal of toxic or other materials inside of the fenced off area.
- Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities.
- Mulch rooting area with an acidic, organic compost or mulch.
- Arrange for periodic (Biannual/Quarterly) inspection of tree's condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as they occur, or as appropriate.
- Individual trees likely to suffer significant impacts may require specific, more extensive efforts and/or a more detailed specification than those contained within these general guidelines.

Protective tree fencing shall specify the following:

(1) Size and materials. Six (6) foot high chain link fencing, mounted on two-inch diameter galvanized iron posts, shall be driven into the ground to a depth of at least two (2) feet at no more than 10-foot spacing. For paving area that will not be demolished and when stipulated in a tree preservation plan, posts may be supported by a concrete base.
(2) Area type to be fenced. Type I: Enclosure with chain link fencing of either the entire drip-line area or at the tree protection zone (TPZ), when specified by a certified or consulting arborist. Type II: Enclosure for street trees located in a planter strip: chain link fence around the entire planter strip to the outer branches. Type III: Protection for a tree located in a small planter cutout only (such as downtown): orange plastic fencing shall be wrapped around the trunk from the ground to the first branch with 2-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.
(3) Duration of Type I, II, III fencing. Fencing shall be erected before demolition, grading or construction permits are issued and remain in place until the work is completed. Contractor shall Page 14 first obtain the approval of the project arborist on record prior to removing a tree protection fence.
(4) Warning sign. Each tree fence shall have prominently displayed an 8.5 x 11-inch sign stating: "Warning—Tree Protection Zone-this fence shall not be removed and is subject to penalty according to Town Code 29.10.1025"
(5) Prior to the commencement of construction, install the fence at the drip-line, around any tree and/or vegetation to be retained which could be affected by the construction and prohibit any storage of construction materials or other materials, equipment cleaning, or parking of vehicles within the TPZ. The drip-line shall not be altered in any way so as to increase the encroachment of the construction.
(6) Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the drip-line of the tree unless approved by the Director.
(7) Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the drip-line of or in drainage channels, swales or areas that may lead to the drip-line of a protected tree.
(8) Prohibit the attachment of wires, signs or ropes to any protected tree.
(9) Design utility services and irrigation lines to be located outside of the drip-line when feasible.
(10) Retain the services of a certified or consulting arborist who shall serve as the project arborist for periodic monitoring of the project site and the health of those trees to be preserved. The project arborist shall be present whenever activities occur which may pose a potential threat to the health of the trees to be preserved and shall document all site visits.
(11) The Director and project arborist shall be notified of any damage that occurs to a protected tree during construction so that proper treatment may be administered.

Tree Removal Plan

Palo Alto Tree Removal and Replacement Ordinances

8.10.050 Removal of protected trees.

It shall be a violation of this chapter for anyone to remove or cause to be removed a protected tree, except pursuant to a protected tree removal permit issued under Section 8.10.140 consistent with the following:

(a) In the absence of proposed development:

(1) A protected tree shall not be removed unless the urban forester grants a protected tree removal permit, or on parcels zoned other than single-family (R-1) or low density residential (RE, R-2, or RMD), the director of planning and development services authorizes the removal through staff level architectural review pursuant to Section 18.76.020(b)(3), having determined, on the basis of a tree report prepared by a designated arborist and other relevant information, that treatments or corrective practices are not feasible, and that the tree should be removed because any of the following apply:

(i) It is dead, is hazardous, or constitutes a public nuisance under Section 8.04.050 of this code.

(ii) It is a detriment to or is crowding an adjacent protected tree.

(iii) It is at risk for retrenchment or other tree decline coping processes or does not conform with right tree in the right place principles.

(iv) It is impacting the foundation or eaves of a residence, or any covered parking required under Title 18 of this code.

(2) In the event a protected tree is removed pursuant to a protected tree removal permit granted under this subsection (a), a temporary moratorium on development of the subject property may be issued by the urban forester for up to twenty-four months or by, the director of planning and development services, in consultation with the urban forester, for up to thirty-six months, from the date the tree removal occurred. Completion of required mitigation measures included in the tree removal permit does not remove or shorten any such moratorium. A moratorium may be terminated early with approval of the urban forester or director of planning, and development services, as applicable, and may require additional mitigation measures. Mitigation measures included in the protected tree removal permit and any additional mitigation measures required to shorten a moratorium shall be imposed as a condition of any subsequent permits for development on the subject property.

(b) In the case of any development on a single-family (R-1) or low density (RE, R-2, or RMD) residential zoned parcel, other than in connection with a subdivision, a protected tree shall not be removed unless the tree is proposed for removal to accommodate an ADU constructed pursuant to Section 18.09.030, or because removal is necessary to allow an ADU constructed pursuant to Section 18.09.040 to achieve the minimum standards set forth in state law, or it is determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that any of the following apply:

(1) The tree is so close to the proposed development that construction would result in the death of the tree, and there is no financially feasible design alternative that would permit preservation of the tree, where financially feasible means an alternative that preserves the tree unless retaining the tree would increase project cost by more than twice the reproduction cost of the tree or ten percent of the given project valuation, whichever is greater.

(2) Retention of one or more trees would result in reduction of the otherwise-permissible buildable area of the lot by more than twenty-five percent, and there is no financially feasible design alternative that would allow for preservation of the tree(s). For the purposes of this subsection (a)(2), a financially feasible design alternative means a design alternative that preserves the tree(s) and would not increase the project cost by more than twice the reproduction cost of the tree(s) or ten percent of the given project valuation, whichever is greater. All tree protection zones impacting buildable area are included in the reduction of buildable area calculation.

(3) The tree could be removed due to the conditions listed in Section 8.10.050(a)(1)(i), (ii), or (iii) and treatments or corrective practices are not feasible.

(c) In the case of development involving a proposed subdivision of land into two or more parcels, a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that either of the following apply:

(1) Removal is unavoidable due to restricted access to the property or deemed necessary to repair a geologic hazard (landslide, repairs, etc.), in which case only the protected tree or trees necessary to allow access to the property or repair the geologic hazard may be removed.

(2) The tree could be removed due to the conditions listed in subsection (a)(1)(i), (ii), or (iii) and treatments or corrective practices are not feasible.

(d) In the case of development requiring planning approval under Title 18, and not included under subsections (b) or (c), a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that any of the following apply:

(1) Retention of one or more trees would result in reduction of the otherwise-permissible buildable area of the lot by more than twenty-five percent, and there is no financially feasible design alternative that would permit preservation of the tree(s), where financially feasible means an alternative that preserves the tree(s) unless retaining the tree(s) would increase project cost by more than twice the reproduction cost of the tree or ten percent of the given project valuation, whichever is greater. All tree protection zones impacting buildable area are included in the reduction of buildable area calculation.

(2) The tree should be removed because it is dead, hazardous, or constitutes a public nuisance under Section 8.04.050. In such cases, the tree protection zone of the removed tree, or an equivalent area on the site, shall be preserved for mitigation purposes from development of any structure.

(3) Discretionary development review determines that the final project follows right tree in the right place principles and would result in a net tree canopy increase on the property within fifteen years, and replacement of trees, shrubs, and plants either:

(i) Is consistent with Urban Forest Master Plan Goal 2: "Re-generated native woodland and riparian landscapes as the key ecological basis of the urban forest with focus on native species and habitat," or

(ii) Uses climate adaptive, drought tolerant species.

(e) In any circumstance other than those described in subsections (a), (b), (c), or (d), a protected tree shall not be removed unless determined by the urban forester, on the basis of a tree report prepared by a designated arborist and other relevant information, that the tree is dead, is hazardous, or constitutes a public nuisance under Section 8.04.050.

(Ord. 5612 § 2 (part), 2024: Ord. 5557 § 4 (part), 2022: Ord. 5494 § 3, 2020: Ord. 4826 § 4, 2004: Ord. 4680 § 3, 2001: Ord. 4568 § 1 (part), 1999)

8.10.055 Tree replacement.

(a) In the event a protected tree is removed pursuant to Section 8.10.050(a)(1)(i), mitigation for the removed tree, replacement tree ratio, in lieu fees, or a combination thereof shall be determined by the urban forester, based on factors including but not limited to the species, size, location, and specific reason for removal of the protected tree, in accordance with the standards and specifications in the *Tree and Landscape Technical Manual*.

(b) In the event a protected tree is removed pursuant to Section 8.10.050 (a)(1)(ii), (iii), or (iv), (b), (c), (d), or (e), the tree removed shall be replaced in accordance with the standards and specifications in the *Tree and Landscape Technical Manual*, including but not limited to prioritization of locally native species, satisfaction of right tree in the right place principles, and incorporation of a secondary goal of net tree canopy increase on the property within fifteen years. The urban forester shall approve the number, species, size, and location of replacement trees.

(Ord. 5612 § 2 (part), 2024: Ord. 5557 § 4 (part), 2022)

Tree Replacement Plan

This plan outlines the measures to compensate for the removal of eight native oak trees, seven of which are protected under the Palo Alto Tree Protection Ordinance. The plan adheres to the city's requirements and ensures ecological value is maintained through appropriate replacement plantings.

Overview of Tree Removal

- **Total Trees to Be Removed:** 8 native oak trees

  Tags: 07 - 11 - 58 - 59 - 60 - 61 - 62 : Blue Oaks

  63 - Coast Live Oak

- **Protected Trees:** 7 trees are protected under Palo Alto City Ordinance.

Replacement Details

- **Total Replacement Trees:** 16 native oaks
- **Species:** Replacement trees will be either:
  - Coast Live Oak (*Quercus agrifolia*)
  - Blue Oak (*Quercus douglasii*)
- **Container Size:** All replacement trees will be planted in **15-gallon containers** to ensure successful establishment.
- **Planting Locations:** Replacement trees will be distributed across the property in suitable locations, ensuring adequate spacing and optimal growing conditions. Exact planting sites will be determined to avoid future conflicts with structures or utilities.

Planting Guidelines

- **Soil Preparation:** Planting holes will be amended with native soil and organic material as needed to promote healthy root growth.
- **Irrigation:** Temporary irrigation systems or manual watering will be provided for the first 3-5 years to ensure establishment.
- **Mulching:** A 3-4 inch layer of mulch will be applied around the base of each tree to conserve moisture and regulate soil temperature.

Maintenance and Monitoring Plan

- **Health Inspections:** Bi-annual or quarterly health inspections are recommended to be conducted by a certified arborist during the first two years.
- **Maintenance Actions:**
  - Deadwood and damaged branches will be pruned as needed.
  - Irrigation will be adjusted based on seasonal rainfall.

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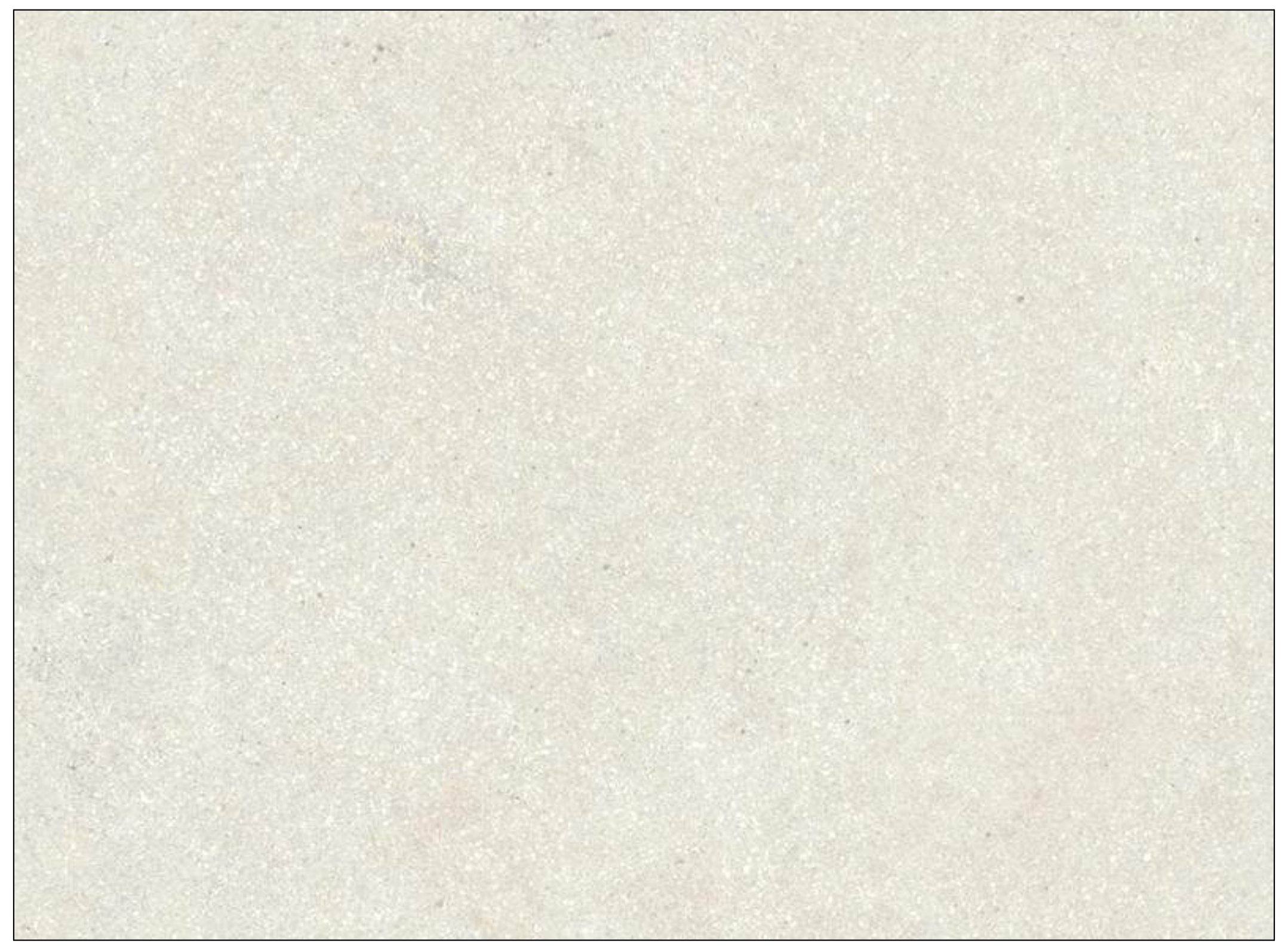
Project Number: Project Number

LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Arborist Report



Stucco
Manufacturer: LaHabra
Color: #40 Dove Grey
Use this product or approved equal.

Asphalt Shingle Roofing
Manufacturer: Certainteed
Product: XT25
Color: Georgetown Gray
Use this product or approved equal.

Exterior Fenestration
Manufacturer: Lincoln
Product: Wood Clad frame
Color: Champagne Beige Exterior/Wood interior
Use this product or approved equal.

Wood Siding
Manufacturer: Parklex Prodema
Color: Tobacco
Use this product or approved equal.

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Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on extensions of the project, or other projects, except by agreement in writing and appropriate compensation to the Architect.

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DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Finish Materials & Colors

A07

Printed: 12/19/2024

FORM NO. AFJ-220 REV. 4

FUJITSU

AIR CONDITIONERS

Features

- New composite base pan – dampens sound, captures louver panels, eliminates corrosion and reduces number of fasteners needed
- Powder coat paint system – for a long lasting professional finish
- Scroll compressor – uses 70% fewer moving parts for higher efficiency and increased reliability
- Modern cabinet aesthetics – increased curb appeal with visually appealing design
- Louver panels – provide ultimate coil protection, enhance cabinet strength, and increased cabinet rigidity
- Optimized fan orifice – optimizes airflow and reduces unit sound
- Rust resistant screws – confirmed through 1500-hour salt spray testing
- 3"-4"-5" service valve space – provides a minimum working area of 27-square inches for easier access
- 15" wide, industry leading corner service access – makes repairs easier and faster
- External gauge port access – allows easy connection of “low-loss” gauge ports
- Single-row condenser coil – makes unit lighter and allows thorough coil cleaning to maintain “out of the box” performance
- Fewer cabinet fasteners – allow for faster access to internal components and hassle-free panel removal
- Service trays – hold fasteners or caps during service calls
- QR code – provides technical information on demand for faster service calls
- Fan motor harness with extra long wires allows unit top to be removed without disconnecting fan wire.

FO*14C SERIES

Efficiencies up to 16 SEER/13 EER
Nominal Sizes 1½ to 5 Ton [5.28 to 17.6 kW]
Cooling Capacities 17.3 to 60.5 kBTU
[5.7 to 17.7 kW]

Manufactured for
Fujitsu General America, Inc.
Fairfield, NJ

Performance Review Institute Registrar
Achieving Excellence Together
ISO 9001:2015
Certified Company

c UL us
LISTED

AHRI CERTIFIED

ENERGUIDE

Physical Data

PHYSICAL DATA							
Model No.	**FO1814**	**FO2414**	**FO3014**	**FO3614**	**FO4214**	**FO4814**	**FO6014**
Nominal Tonnage	1.5	2.0	2.5	3.0	3.5	4.0	5.0
Valve Connections							
Liquid Line O.D. – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction Line O.D. – in.	3/4	3/4	3/4	3/4	7/8	7/8	7/8
Refrigerant (R410A) furnished oz.[1]	68	80	87	106	134	129	199
Compressor Type	Scroll						
Outdoor Coil							
Net face area – Outer Coil	9.1	11.1	12.1	14.8	17.3	18.9	28.27
Net face area – Inner Coil	—	—	—	—	—	—	—
Tube diameter – in.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Number of rows	1	1	1	1	1	1	1
Fins per inch	22	22	22	22	22	22	22
Outdoor Fan							
Diameter – in.	20	20	20	24	24	26	26
Number of blades	2	2	2	3	3	2	3
Motor hp	1/10	1/8	1/8	1/6	1/5	1/5	1/3
CFM	2225	2295	2605	3105	4105	4264	5000
RPM	1075	1121	1075	850	833	820	795
watts	130	138	142	173	236	236	239
Shipping weight – lbs.	143	148	158	178	207	232	268
Operating weight – lbs.	122	141	151	171	200	221	261

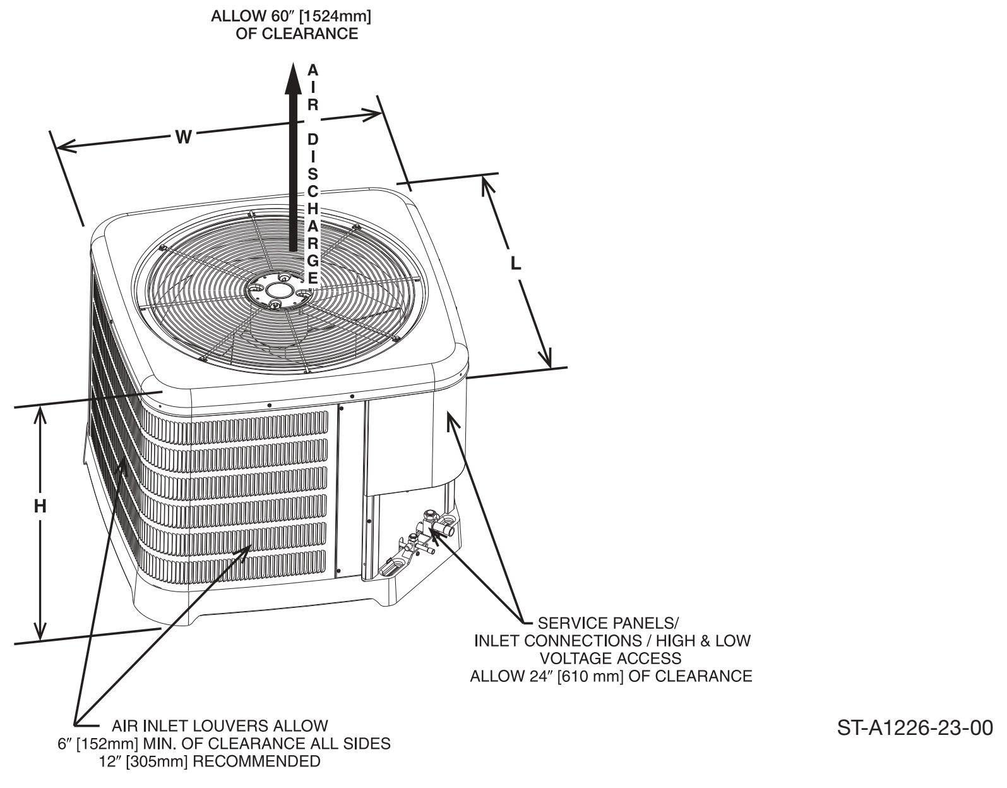
Electrical Data

Line Voltage Data (Volts-Phase-Hz)	**208/230-1-60**	**208/230-1-60**	**208/230-1-60**	**208/230-1-60**	**208/230-1-60**	**208/230-1-60**	**208/230-1-60**
Maximum overcurrent protection (amps)[2]	20	25	25	30	35	45	50
Minimum circuit ampacity[3]	13	15	17	19	23	27	35
Compressor							
Rated load amps	9.7	10.9	12.8	14.1	16.7	19.9	27.1
Locked rotor amps	48	62.9	64	77	109	109	110
Condenser Fan Motor							
Full load amps	0.6	0.8	0.8	0.8	1.2	1.2	1
Locked rotor amps	1.1	1.5	1.4	1.5	2.0	2.3	1
Line Voltage Data (Volts-Phase-Hz)	—	—	—	**208/230-3-60**	**208/230-3-60**	**208/230-3-60**	**208/230-3-60**
Maximum overcurrent protection (amps)[2]	—	—	—	20	25	30	25
Minimum circuit ampacity[3]	—	—	—	13	16	18	24
Compressor							
Rated load amps	—	—	—	9	11.2	13.1	17.8
Locked rotor amps	—	—	—	71	84	83.1	110
Condenser Fan Motor							
Full load amps	—	—	—	0.8	1.2	1.2	1
Locked rotor amps	—	—	—	1.5	3.0	2.3	2.6
Line Voltage Data (Volts-Phase-Hz)	—	—	—	**480-3-60**	**480-3-60**	**480-3-60**	**480-3-60**
Maximum overcurrent protection (amps)[2]	—	—	—	15	—	15	15
[3]Minimum circuit ampacity	—	—	—	8	—	9	12
Compressor							
Rated load amps	—	—	—	5.6	—	6.1	8.6
Locked rotor amps	—	—	—	38	—	41	60
Condenser Fan Motor							
Full load amps	—	—	—	0.5	—	0.6	0.5
Locked rotor amps	—	—	—	1.1	—	1.6	1.4

[1] Refrigerant charge sufficient for 15 ft. length of refrigerant lines. For longer line set requirements see the installation instructions for information about set length and additional refrigerant charge required.
[2] HACR type circuit breaker of fuse.
[3] Refer to National Electrical Code manual to determine wire, fuse and disconnect size requirements.

Unit Dimensions

MODEL NO.	OPERATING						SHIPPING					
	H (Height)		L (Length)		W (Width)		H (Height)		L (Length)		W (Width)	
	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm	INCHES	mm
FO1814C	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
FO2414C	25	635	29.75	755	29.75	755	26.75	679	32.38	822	32.38	822
FO3014C	27	685	29.75	755	29.75	755	28.75	730	32.38	822	32.38	822
FO3614C	27	685	33.75	857	33.75	857	28.75	730	36.38	924	36.38	924
FO4214C	35	889	33.75	857	33.75	857	36.75	933	36.38	924	36.38	924
FO4814C	31	787	35.75	908	35.75	908	32.75	832	38.38	975	38.38	975
FO16014C	45	1143	35.75	908	35.75	908	45.38	1153	38.25	972	38.25	972



ST-A1226-23-00

[ ] Designates Metric Conversions

1 Fujitsu Air Conditioner

VRCHITECTS
833-262-2208
VRchitects.com
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Palo Alto, CA 94303
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908 Industrial Ave Palo Alto CA 94303
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929 Laurel Glen Drive, Palo Alto, CA
929 Laurel Glen Drive
Palo Alto , CA 94304

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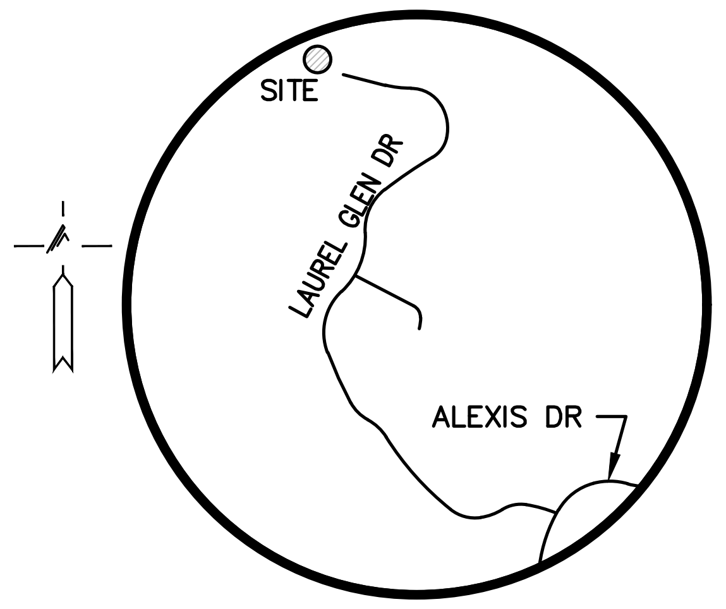
REN. 2/28/2025

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

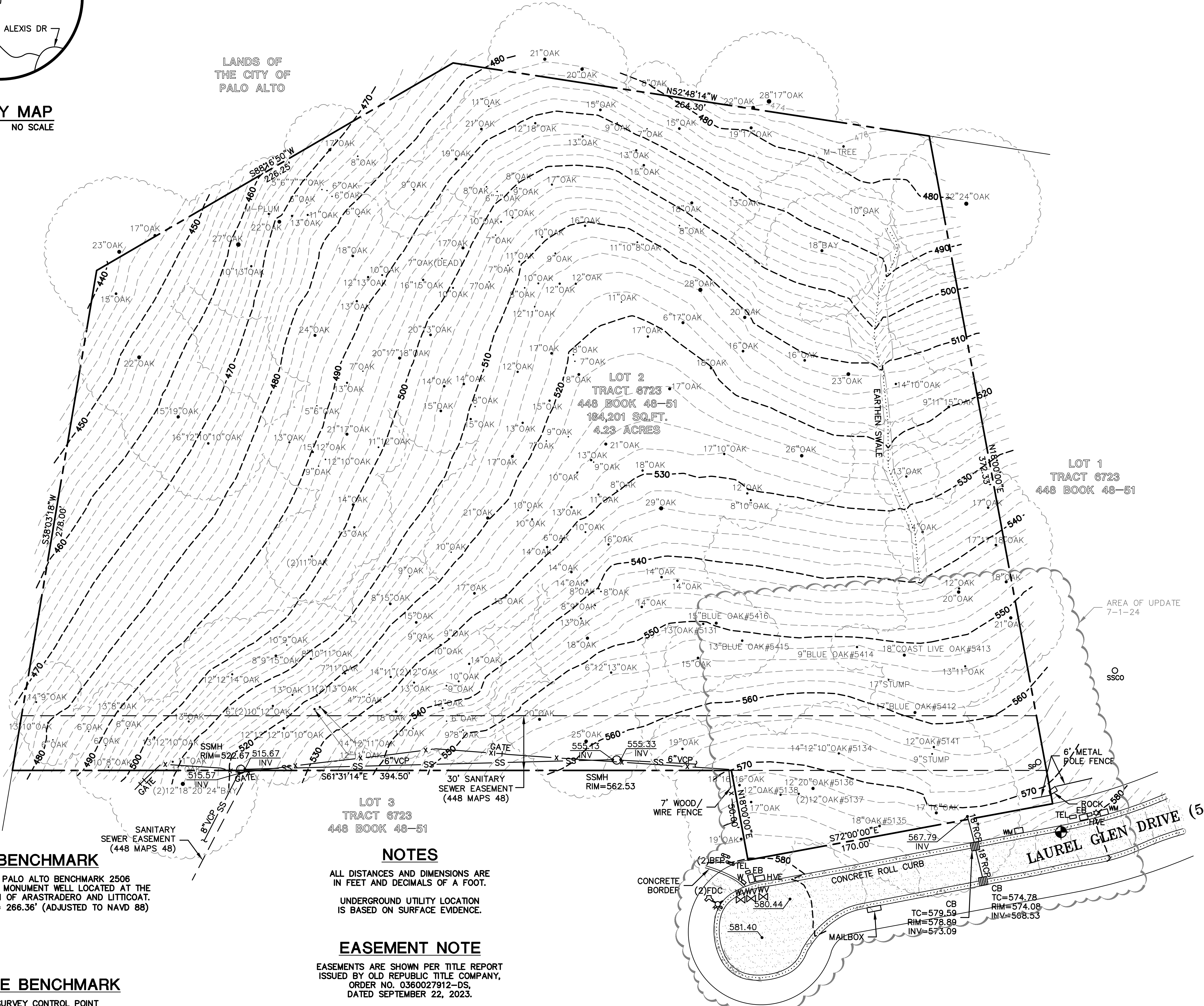
Product Specifications

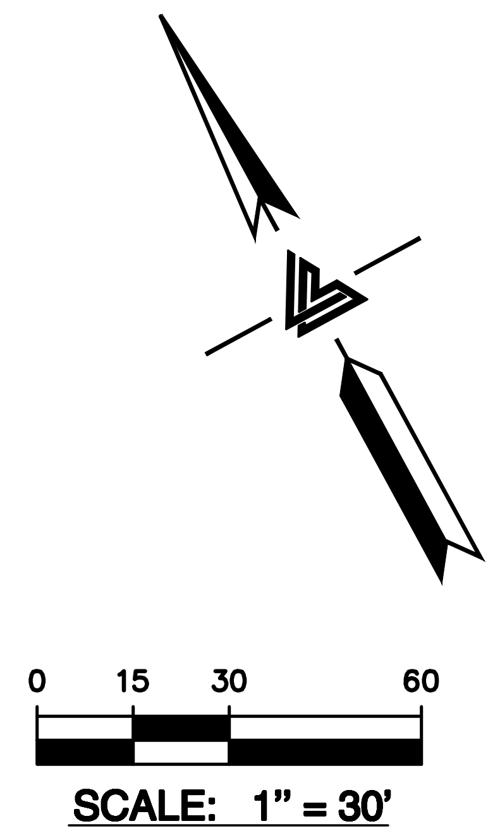
A08

Printed: 12/19/2024



VICINITY MAP
NO SCALE





LEGEND AND NOTES

——— – – ———	BOUNDARY LINE
— — — — — —	EASEMENT
——— x ———	FENCE LINE
··············	FLOW LINE
——— SS ———	SANITARY SEWER LINE
——— SD ———	STORM DRAIN LINE
BFP	BACK FLOW PREVENTER
⊕	BENCHMARK
▥ CB	CATCH BASIN
☐ EB	ELECTRICAL BOX
FDC	FIRE DEPARTMENT CONNECTION
✱	FIRE HYDRANT
FL	FLOW LINE
☐HVE	HIGH VOLTAGE ELECTRIC VAULT
INV	INVERT
M–	MULTI–TRUNK TREE
RCP	REINFORCED CONCRETE PIPE
○ SSCO	SANITARY SEWER CLEANOUT
○SSMH	SANITARY SEWER MANHOLE
☼	STREET LIGHT
☐TEL	TELEPHONE VAULT
☐ WM	WATER METER
VCP	VITRIFIED CLAY PIPE
⋈ WV	WATER VALVE
☐ W	WATER VAULT
XXX.XX	SPOTGRADE
▨	ASPHALT
▨	CONCRETE

BENCHMARK

CITY OF PALO ALTO BENCHMARK 2506 IRON PIPE IN MONUMENT WELL LOCATED AT THE INTERSECTION OF ARASTRADERO AND LITTICOAT. ELEVATION = 266.36' (ADJUSTED TO NAVD 88)

⊕ SITE BENCHMARK

SURVEY CONTROL POINT
MAG AND SHINER SET IN ASPHALT
ELEVATION = 577.32'
(NAVD 88 DATUM)

NOTES

ALL DISTANCES AND DIMENSIONS ARE IN FEET AND DECIMALS OF A FOOT.

UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.

EASEMENT NOTE

EASEMENTS ARE SHOWN PER TITLE REPORT ISSUED BY OLD REPUBLIC TITLE COMPANY, ORDER NO. 0360027912–DS, DATED SEPTEMBER 22, 2023.

LICENSED LAND SURVEYOR
GREGORY F. BRAZE
No. 7623
STATE OF CALIFORNIA

LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS | LAND SURVEYORS
MAIN OFFICE:
2495 INDUSTRIAL PKWY WEST
HAYWARD, CALIFORNIA 94545
(510) 887–4086
REGIONAL OFFICES:
ROSEVILLE
PLEASANTON
SAN JOSE
SAN LUIS OBISPO
WWW.LEABRAZE.COM

LAUREL CANYON DRIVE
PALO ALTO
CALIFORNIA

SANTA CLARA COUNTY
APN: 182–54–013

TOPOGRAPHIC SURVEY

–	–
–	–
–	–
SURVEY UPDATE 7–1–24	DB
REVISIONS	BY

JOB NO:	2232068
DATE:	4–16–14
SCALE:	1"=30'
BNDY BY:	MT
FIELD BY:	MS
DRAWN BY:	DB

SHEET NO:
SU1
1 OF 1 SHEETS

1 3D View from South-East

2 3D View from North-West

3 3D View from North-East

4 3D View from South-West

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REV	ISSUE	DATE
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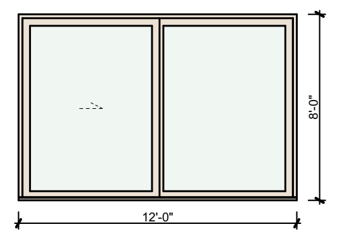
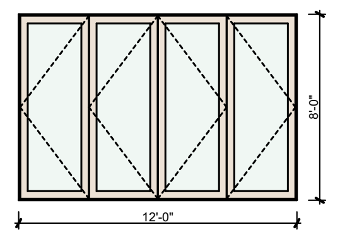
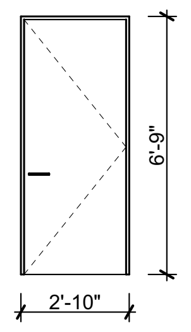
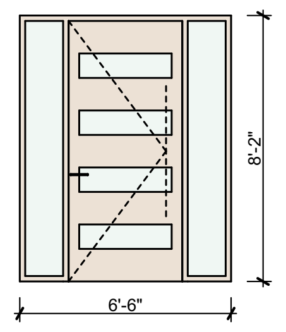
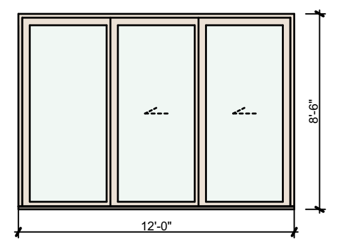
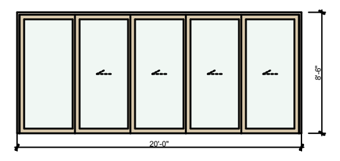
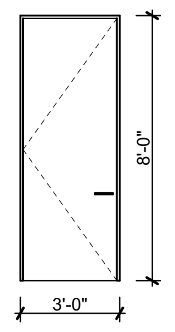
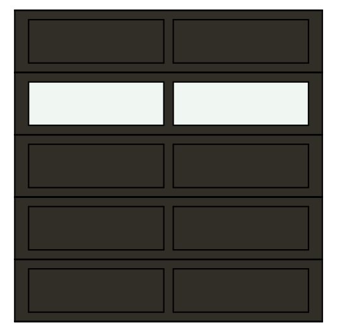
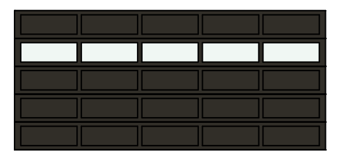
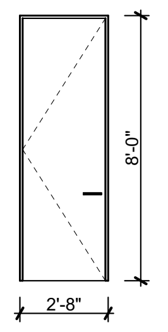
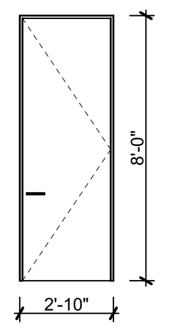
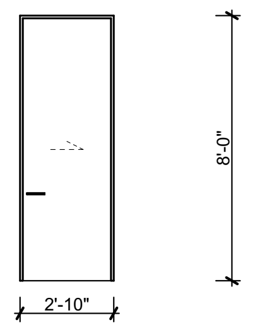
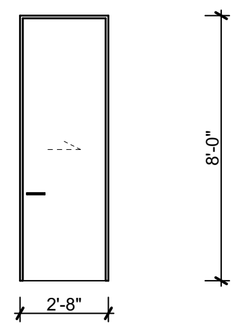
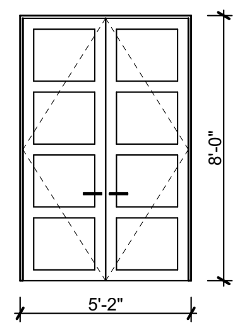
3D Views

A010

Printed: 12/19/2024

Door Types

ID	D01	D02	D03	D04	D05	D06	D07, ID01, ID20	D08	D09	ID02, ID05, ID07, ID08, ID09, ID10, ID11, ID12, ID13, ID14, ID16, ID18	ID03, ID21, ID22, ID23, ID24	ID04	ID06, ID17, ID19	ID15
Type	Sliding Door	Bifold Door	Inswing Door	Inswing Door	Sliding Door	Sliding Door	Inswing Door	Garage Door	Garage Door	Inswing Door	Inswing Door	Pocket Door	Pocket Door	Inswing Double Door
View														
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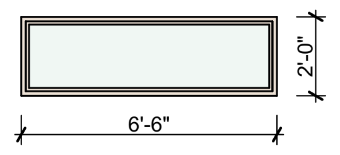
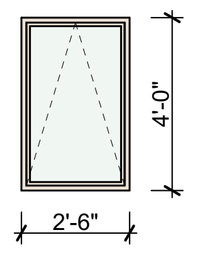
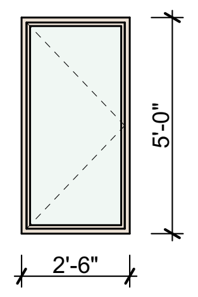
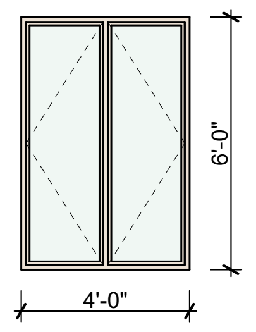
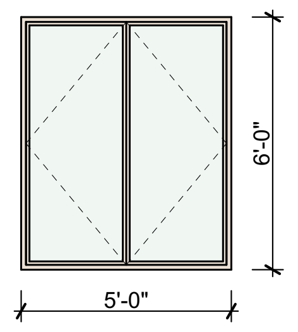
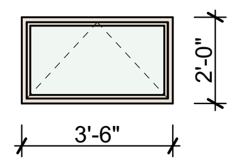
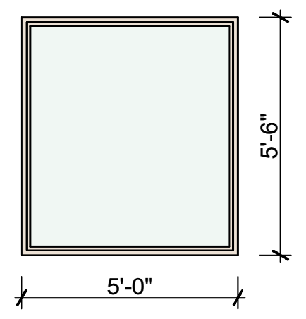
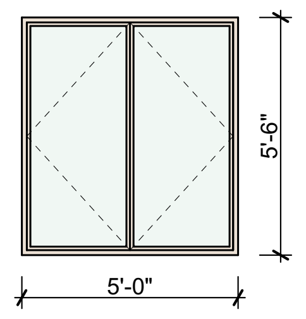
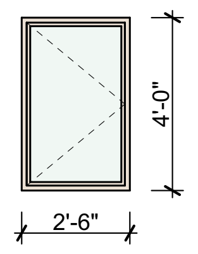
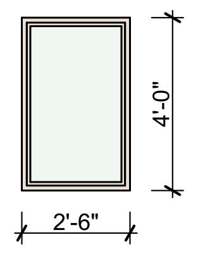
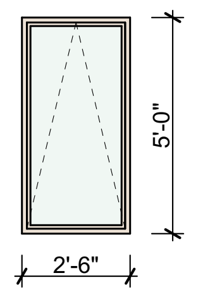
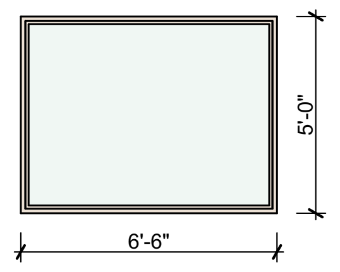
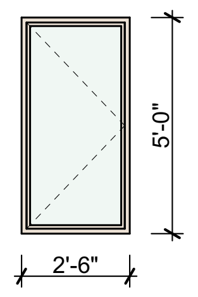
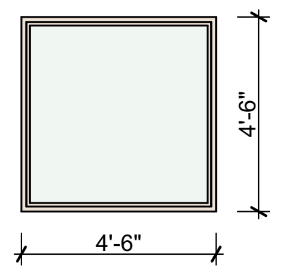
Window Types

ID	W01	W02	W03, W04	W05, W06	W07, W08	W09	W10	W11, W26	W12	W13	W14, W16	W15	W17, W18	W19, W21
Type	Fixed	Awning	Casement	Twin Casement	Twin Casement	Twin Casement	Fixed	Twin Casement	Casement	Fixed	Awning	Fixed	Twin Casement	Fixed
View														
Dimensions	6'-6"×2'-0"	2'-6"×4'-0"	2'-6"×5'-0"	4'-0"×6'-0"	5'-0"×6'-0"	3'-6"×2'-0"	5'-0"×5'-6"	5'-0"×5'-6"	2'-6"×4'-0"	2'-6"×4'-0"	2'-6"×5'-0"	6'-6"×5'-0"	2'-6"×5'-0"	4'-6"×4'-6"
Note														

Exterior Door Schedule

Label	Quantity	Operation Type	Width	Height	Egress	Tempered	Note
D01	1	Sliding Door	12'-0"	8'-0"	Yes	Yes	
D02	1	Bifold Door	12'-0"	8'-0"	Yes	Yes	
D03	1	Inswing Door	2'-10"	6'-9"	No	Yes	
D04	1	Inswing Door	6'-6"	8'-2"	Yes	Yes	
D05	1	Sliding Door	12'-0"	8'-6"	Yes	Yes	
D06	1	Sliding Door	20'-0"	8'-6"	Yes	Yes	
D07	1	Inswing Door	3'-0"	8'-0"	No	Yes	
D08	1	Garage Door	8'-0"	8'-0"	No	Yes	
D09	1	Garage Door	18'-0"	8'-0"	No	Yes	
	9						

Interior Door Schedule

Label	Quantity	Operation Type	Width	Height	Tempered	Note
ID01	1	Inswing Door	3'-0"	8'-0"	Yes	
ID02	1	Inswing Door	2'-8"	8'-0"	Yes	
ID03	1	Inswing Door	2'-10"	8'-0"	Yes	
ID04	1	Pocket Door	2'-10"	8'-0"	Yes	
ID05	1	Inswing Door	2'-8"	8'-0"	Yes	
ID06	1	Pocket Door	2'-8"	8'-0"	Yes	
ID07	1	Inswing Door	2'-8"	8'-0"	Yes	
ID08	1	Inswing Door	2'-8"	8'-0"	Yes	
ID09	1	Inswing Door	2'-8"	8'-0"	Yes	
ID10	1	Inswing Door	2'-8"	8'-0"	Yes	
ID11	1	Inswing Door	2'-8"	8'-0"	Yes	
ID12	1	Inswing Door	2'-8"	8'-0"	Yes	
ID13	1	Inswing Door	2'-8"	8'-0"	Yes	
ID14	1	Inswing Door	2'-8"	8'-0"	Yes	
ID15	1	Inswing Double Door	5'-2"	8'-0"	Yes	
ID16	1	Inswing Door	2'-8"	8'-0"	Yes	
ID17	1	Pocket Door	2'-8"	8'-0"	Yes	
ID18	1	Inswing Door	2'-8"	8'-0"	Yes	
ID19	1	Pocket Door	2'-8"	8'-0"	Yes	
ID20	1	Inswing Door	3'-0"	8'-0"	Yes	
ID21	1	Inswing Door	2'-10"	8'-0"	Yes	
ID22	1	Inswing Door	2'-10"	8'-0"	Yes	
ID23	1	Inswing Door	2'-10"	8'-0"	Yes	
ID24	1	Inswing Door	2'-10"	8'-0"	Yes	
ID25	1	Sliding Door	8'-0"	8'-0"	Yes	
	25					

Window Schedule - Exterior copy 1

Label	Quantity	Operation Type	Width	Height	Egress	Tempered	Note
W01	1	Fixed	6'-6"	2'-0"	No	Both Panes	
W02	1	Awning	2'-6"	4'-0"	No	Both Panes	
W03	1	Casement	2'-6"	5'-0"	No	Both Panes	
W04	1	Casement	2'-6"	5'-0"	No	Both Panes	
W05	1	Twin Casement	4'-0"	6'-0"	Yes	Both Panes	
W06	1	Twin Casement	4'-0"	6'-0"	Yes	Both Panes	
W07	1	Twin Casement	5'-0"	6'-0"	Yes	Both Panes	
W08	1	Twin Casement	5'-0"	6'-0"	Yes	Both Panes	
W09	1	Awning	3'-6"	2'-0"	No	Both Panes	
W10	1	Fixed	5'-0"	5'-6"	No	Both Panes	
W11	1	Twin Casement	5'-0"	5'-6"	Yes	Both Panes	
W12	1	Casement	2'-6"	4'-0"	No	Both Panes	
W13	1	Fixed	2'-6"	4'-0"	No	Both Panes	
W14	1	Awning	2'-6"	5'-0"	No	Both Panes	
W15	1	Fixed	6'-6"	5'-0"	No	Both Panes	
W16	1	Awning	2'-6"	5'-0"	No	Both Panes	
W17	1	Casement	2'-6"	5'-0"	No	Both Panes	
W18	1	Casement	2'-6"	5'-0"	No	Both Panes	
W19	1	Fixed	4'-6"	4'-6"	No	Both Panes	
W20	1	Awning	5'-0"	4'-6"	No	Both Panes	
W21	1	Fixed	4'-6"	4'-6"	No	Both Panes	
W22	1	Fixed	3'-0"	4'-6"	No	Both Panes	
W23	1	Twin Casement	5'-0"	5'-0"	No	Both Panes	
W24	1	Twin Casement	5'-0"	5'-0"	No	Both Panes	
W25	1	Twin Casement	4'-0"	4'-6"	No	Both Panes	
W26	1	Twin Casement	5'-0"	5'-6"	Yes	Both Panes	
	26						

Skylight Schedule

Label	Quantity	Operation Type	Opening W x H Size	Tempered	Note
S01	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S02	1	Fixed	1'-10 1/2"×2'-6"	Yes	
S03	1	Fixed	1'-10 1/2"×2'-6"	Yes	
S04	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S05	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S06	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S07	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S08	1	Fixed	1'-10 1/2"×3'-9"	Yes	
S09	1	Fixed	1'-10 1/2"×2'-6"	Yes	
S10	1	Fixed	1'-10 1/2"×2'-6"	Yes	
	10				

Door and Window Notes

- Manufacturer / Model: Lincoln / Aluminum Clad Wood
- U Value: per Title-24 Energy Report
- SHGC Value: per Title-24 Energy Report
- Glazing: Clear Glazing; Low-E or better
- Interior and exterior color: Manufacturer's standard classic black
- Hardware: Manufacturer's standard hardwares; Provide safety hardware at all first floor doors. For garage roll up door provide ceiling mounted automatic opener with wall mounted and remote control;
- No grilles, unless noted on the schedule
- Screens: Typical at operable fenestration except for main entry door and garage doors.

Skylight Notes

- Manufacturer / Model: Velux / VSE (for operable); Velux FS (for fixed)
- U Value: Per Title-24 Energy Report
- SHGC Value: Per T-24 Energy Report
- Interior / Exterior Color: TBD
- Glazing: Clear galzing; Low-E or better; Inboard pane of glass to be laminated glass (with not less than a 30-mil (0.76 mm) polyvinyl butyral interlayer), outboard pane to be tempered.
- Screen: Typical at operable skylights

NOTES

8. OPENINGS

8.1 DIMENSIONS OF DOORS AND WINDOWS

DIMENSIONS SHOWN FOR CODE REQUIREMENT AND BIDDING PURPOSES. CONTRACTOR SHALL FIELD MEASURE AND VERIFY ALL OPENING SIZES PRIOR ORDERING / MANUFACTURING DOORS AND WINDOWS

8.2 SHOP DRAWINGS FOR DOORS AND WINDOWS

PRIOR MANUFACTURING PROVIDE SHOP DRAWINGS OF DOORS AND WINDOWS TO ARCHITECT FOR APPROVAL.

8.3 LOCKING DEVICES FOR GRADE LEVEL DOORS AND WINDOWS

ALL GRADE LEVEL DOORS AND WINDOWS SHALL BE EQUIPPED WITH LOCKING DEVICES, AND BE OPERABLE FROM INSIDE. THE ENTRY DOOR AND THE DOOR IN BETWEEN THE GARAGE AND THE DWELLING UNIT SHALL HAVE A LOCKING DEVICE WITH A KEY.

8.4 GLAZING IN EXTERIOR DOORS

GLAZING IN EXTERIOR DOORS SHALL MATCH THE GLAZING IN WINDOWS UNLESS NOTED OTHERWISE.

8.5 WOOD DOORS

ALL WOOD DOORS SHALL HAVE 1-1/2" PAIR BUTTS PER LEAF MINIMUM. DOORS OVER 7'-0" SHALL HAVE 2 PAIR BUTTS PER LEAF.)

8.6 INTERIOR DOORS

INTERIOR DOOR SURFACES SHALL BE FINISHED THE SAME ON BOTH SIDES, UNLESS OTHERWISE NOTED.

8.7 WOOD DOOR FRAMES

ALL WOOD DOOR FRAMES AND TRIM SHALL BE W.I. OR W.I.C. CUSTOM GRADE U.O.N.

8.8 EXTERIOR DOOR FRAMES

EXTERIOR DOOR FRAMES SHALL MATCH THE FRAME OF WINDOWS, UNLESS NOTED OTHERWISE.

8.9 TRESHOLD AT EXTERIOR DOORS

ALL EXTERIOR DOORS SHALL BE WEATHER STRIPPED AND HAVE TRESHOLDS WITH DRIP EDGE.

8.10 EXTERIOR DOOR FINISHES

FINISHES ON EITHER SIDE OF EXTERIOR DOORS MAY VARY.

8.11 TEMPORARY LABEL ON DOORS, WINDOWS AND SKYLIGHTS

ALL DOORS, WINDOWS AND SKYLIGHTS SHALL HAVE A TEMPORARY LABEL CLEARLY VISIBLE LABEL MEETING THE REQUIREMENTS OF SEC. 10-111. THIS LABEL SHALL NOT BE REMOVED BEFORE INSPECTION BY THE ENFORCEMENT AGENCY. THE LABEL SHALL LIST THE U-FACTOR, SOLAR HEAT GAIN COEFFICIENT (SHGC) AND VISIBLE TRANSMITTANCE (VT).

8.12 CLOSET DOORS FOR CLOTHES DRYER

WHEN A CLOSET IS DESIGNED FOR THE INSTALLATION OF A CLOTHES DRYER, A MINIMUM OPENING OF 100 SQ IN FOR MAKEUP AIR SHALL BE PROVIDED IN THE DOOR OR BY OTHER APPROVED MEANS.

EN. CALIFORNIA ENERGY CODE NOTES

EN110.6 DOOR & WINDOW LABELING, AIR LEAKAGE LIMITS & WEATHERPROOFING

FENESTRATION PRODUCTS, EXTERIOR DOORS & INFILTRATION/ EXFILTRATION CONTROLS:

A. DOORS & WINDOWS BETWEEN CONDITIONED & UNCONDITIONED SPACES MUST BE DESIGNED TO LIMIT AIR LEAKAGE AS DEFINED IN CEC 110.6.

B. FENESTRATION PRODUCTS (EXCEPT FIELD-FABRICATED) SHALL HAVE LABEL WITH CERTIFIED U-FACTOR, CERTIFIED SHGC, AND INFILTRATION CERTIFICATION PER CEC 110.6.

C. EXTERIOR DOORS & WINDOWS SHALL BE WEATHERSTRIPPED; FILL ALL JOINTS & PENETRATIONS WITH SEALANT.

R. CALIFORNIA RESIDENTIAL CODE NOTES

R302.5.1 OPENING BETWEEN GARAGE AND RESIDENCE

DOOR AT SEPARATION WALL BETWEEN GARAGE AND RESIDENCE SHALL BE SELF-CLOSING AND SELF-LATCHING PER CRC R302.5, EITHER:
A) 1-3/8" MINIMUM SOLID CORE WOOD DOOR, OR
B) 1-3/8" SOLID OR HONEYCOMB CORE STEEL DOOR, OR
C) DOOR WITH 20-MINUTE LABEL

R308.4 TEMPERED GLASS AT HAZARDUOUS LOCATIONS

PROVIDE TEMPERED GLASS AT ALL HAZARDOUS LOCATIONS. THE FOLLOWING SHALL BE CONSIDERED HAZARDOUS LOCATIONS: GLAZING IN OPERABLE AND FIXED PANELS OF SWINGING, SLIDING & BIFOLD DOORS. GLAZING IN A PANEL THAT IS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE OF THE GLAZING IS WITHIN A 24" OF EITHER A VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION & WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS WITHIN 60" ABV THE WALKING SURFACE. WHEN A GLAZED PANEL OF A WINDOW MEETS ALL OF THE FOLLOWING: THE AREA OF THE PANEL IS MORE THAN 9 SQFT; THE BOTTOM EDGE WITHIN 18" ABV THE WALKING SURFACE; THE TOP EDGE MORE THAN 36" ABV THE WALKING SURFACE MEASURED VERTICALLY. ONE OR MORE WALKING SURFACES ARE WITHIN 36" HORIZONTALLY OF THE GLAZING PLANE. ALL OF THE GLAZING IN GUARDS AND RAILINGS. GLAZING ADJACENT TO RAMPS AND STAIRS WHERE THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60" ABV THE WALKING SURFACE OF THE RAMP OR STAIR OR THE LANDINGS. GLAZING OF DOORS AND ENCLOSURES OF HOT TUBS, SPAS, SAUNAS, BATHTUBS, SHOWERS, WHERE THE BOTTOM EXPOSED EDGE OF GLAZING IS LESS THAN 60" ABV THE FLOOR. GLAZING IS TO BE CONSIDERED A HAZARDOUS LOCATION WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING PANEL IS WITHIN 60" ABV THE THREAD NOSING OF STAIRS, AT LANDINGS & ALONG RAMPS. GLAZING IN ALL UNFRAMED SWINGING DOORS.

R308.6.2 GLAZING IN SKYLIGHTS

GLAZING MATERIAL FOR SKYLIGHTS SHALL BE TEMPERED GLASS, LAMINATED GLASS, WIRED GLASS OR AN APPROVED RIGID PLASTIC.

R308.6.8 SKYLIGHT CURB

SKYLIGHTS MOUNTED ON ROOF WITH A SLOPE LESS THAN 3:12 SHALL BE MOUNTED ON A 6" MIN HEIGHT CURB UNLESS OTHERWISE EXPLICITLY APPROVED IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

R310 EMERGENCY ESCAPE OPENINGS

BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AN EMERGENCY ESCAPE OPENING THAT OPENS DIRECTLY INTO A PUBLIC WAY,A YARD OR COURT THAT OPENS TO A PUBLIC WAY. EMERGENCY ESCAPE OPENINGS SHALL BE OPENABLE FROM THE INSIDE WITHOUT A KEY OR ANY SPECIAL EFFORTS, AND MEET ALL THE FOLLOWING REQUIREMENTS: MIN NET CLEAR OPENING: 5.7 SF (EXCEPTION: 5 SF MIN FOR OPENINGS IN GRADE FLOOR), MIN NET CLEAR WIDTH: 20", MIN NET CLEAR HEIGHT 24", MAX HEIGTH OF OPENING FROM FLOOR: 44" AFF.

R310.1 EMERGENCY ESCAPE AND RESCUE OPENING REQUIRED

BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE MIN ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING. WHERE BASEMENTS CONTAIN ONE OR MORE SLEEPING ROOMS, AN EMERGENCY ESCAPE OPENING IS REQUIRED IN EACH SLEEPING ROOM. EMERGENCY ESCAPE OPENINGS SHALL OPEN DIRECTLY INTO A PUBLIC WAY.
EXCEPTIONS:
1. BASEMENTS WITH A CEILING HEIGHT OF LESS THAN 80” ARE NOT REQUIRED TO HAVE EMERGENCY ESCAPE OPENINGS.
2. EMERGENCY ESCAPE OPENINGS ARE NOT REQUIRED FROM BASEMENTS OR SLEEPING ROOMS THAT HAVE AN EXIT DOOR OR EXIT ACCESS DOOR THAT OPENS DIRECTLY INTO A PUBLIC WAY OR TO A YARD, COURT OR EXTERIOR EGRESS BALCONY THAT OPENS TO A PUBLIC WAY.
3. BASEMENTS UP TO 200 SF AREA WITHOUT HABITABLE SPACES ARE REQUIRED TO HAVE EMERGENCY ESCAPE OPENINGS.
4. STORM SHELTERS ARE NOT REQUIRED TO COMPLY WITH THIS SECTION.
5. WHERE THE DWELLING UNIT OR TOWNHOUSE UNIT IS EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION R313, SLEEPING ROOMS IN BASEMENTS ARE NOT REQUIRED TO HAVE EMERGENCY ESCAPE OPENINGS IF THE BASEMENT HAS ONE OF THE FOLLOWING:
1. ONE MEANS OF EGRESS COMPLYING WITH SECTION R311 AND ONE EMERGENCY ESCAPE AND RESCUE OPENING.
2. TWO MEANS OF EGRESS COMPLYING WITH SECTION R311.

R310.2 EMERGENCY ESCAPE AND RESCUE OPENING DIMENSIONS

MIN NET CLEAR OPENING: 5.7 SF (EXCEPTION: 5 SF MIN FOR OPENINGS IN GRADE FLOOR), MIN NET CLEAR WIDTH: 20", MIN NET CLEAR HEIGHT 24", MAX HEIGTH OF OPENING FROM FLOOR: 44" AFF.

R311.2 EXIT DOOR WIDTH

REQUIRED EXIT DOOR(S) SHALL BE NOT BE LESS THAN 2’-8” CLEAR WIDTH AND 6’-6” CLEAR HEIGHT.

R311.3 EXTERIOR LANDINGS

ALL EXTERIOR DOORS SHALL HAVE MIN 36" LANDINGS, MEASURED PERPENDICULAR TO WALL PLANE. BALCONIES LESS THAN 60SF AND ACCESSIBLE ONLY FROM THE DOOR ARE EXEMPT FROM THIS REQ'T.

R311.3.1 LANDING AT EGRESS DOORS

LANDING AND FLOOR SURFACES AT REQUIRED EGRESS DOORS SHALL NOT BE MORE THAN 1-1/2" LOWER THAN THE TOP OF TRESHOLD. EXCEPTION: THE EXTERIOR LANDING MAY BE 7 3/4" MAXIMIM BELOW TOP OF THRESHOLD IF THE DOOR DOESN'T SWING OVER THE LANDING.

R337.8 DOORS, WINDOWS AND SKYLIGHTS IN ANY FIRE HAZARD SEVERITY ZONE

DOORS, WINDOWS AND SYLIGHTS SHALL COPMLY WITH ONE OF THE FOLLOWING: 1, MULTIPLE GLAZING WITH A MIN OF ONE TEMPERED PANE; 2, BE CONSTRUCTED OF GLASS BLOCK UNITS OR; 3, HAVE A 20 MINUTE RATING PER NFPA 257 OR; 4, BE TESTED PER SFM STANDARD 12-7A-2. THE EXTERIOR SURFACE OF THE CLADDING SHALL BE NONCOMBUSTIBLE MATERIAL OR IGNITION RESISTANT MATERIAL, OR 1 3/8" SOLID WOOD CORE.

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Project Number: Project Number

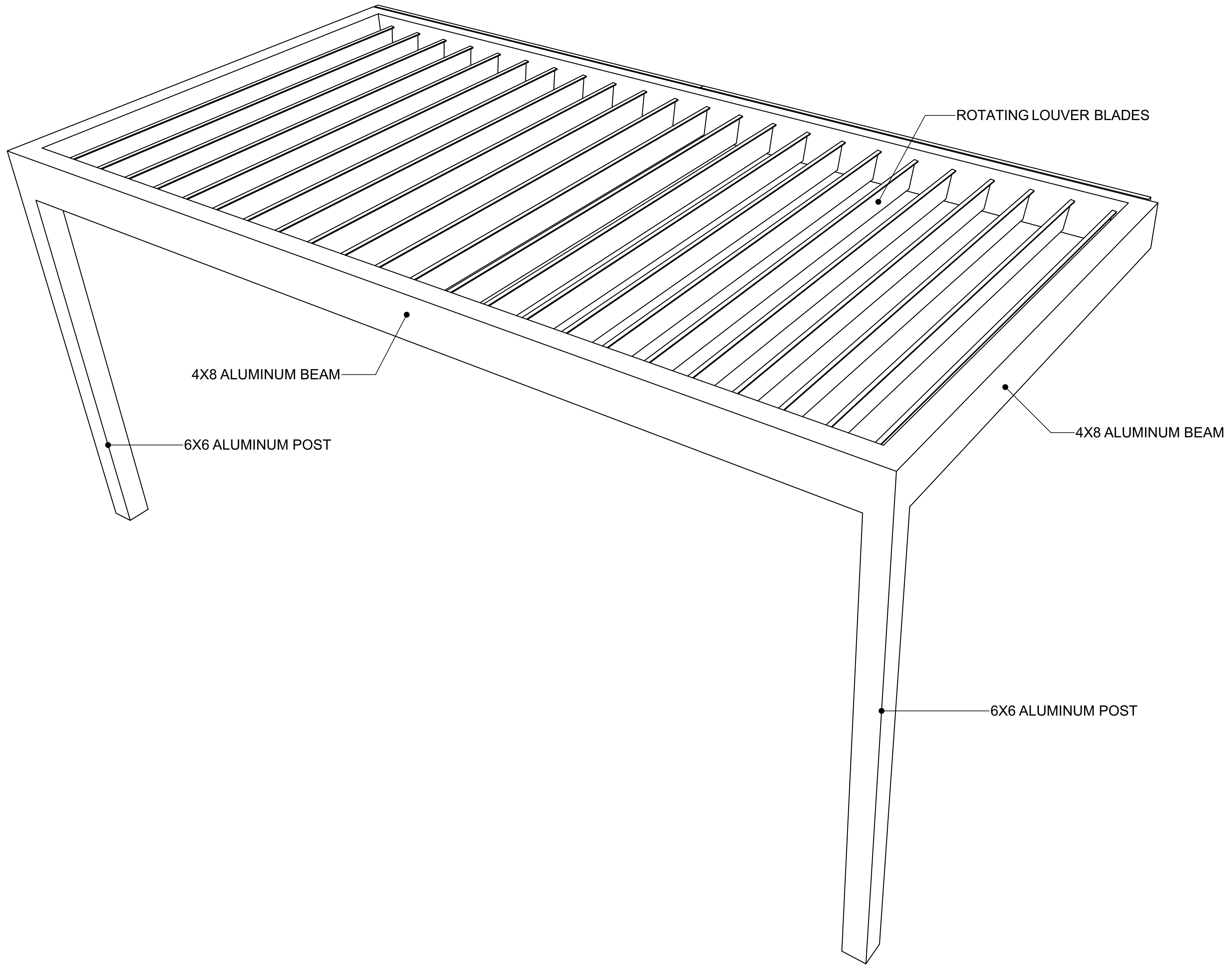
LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

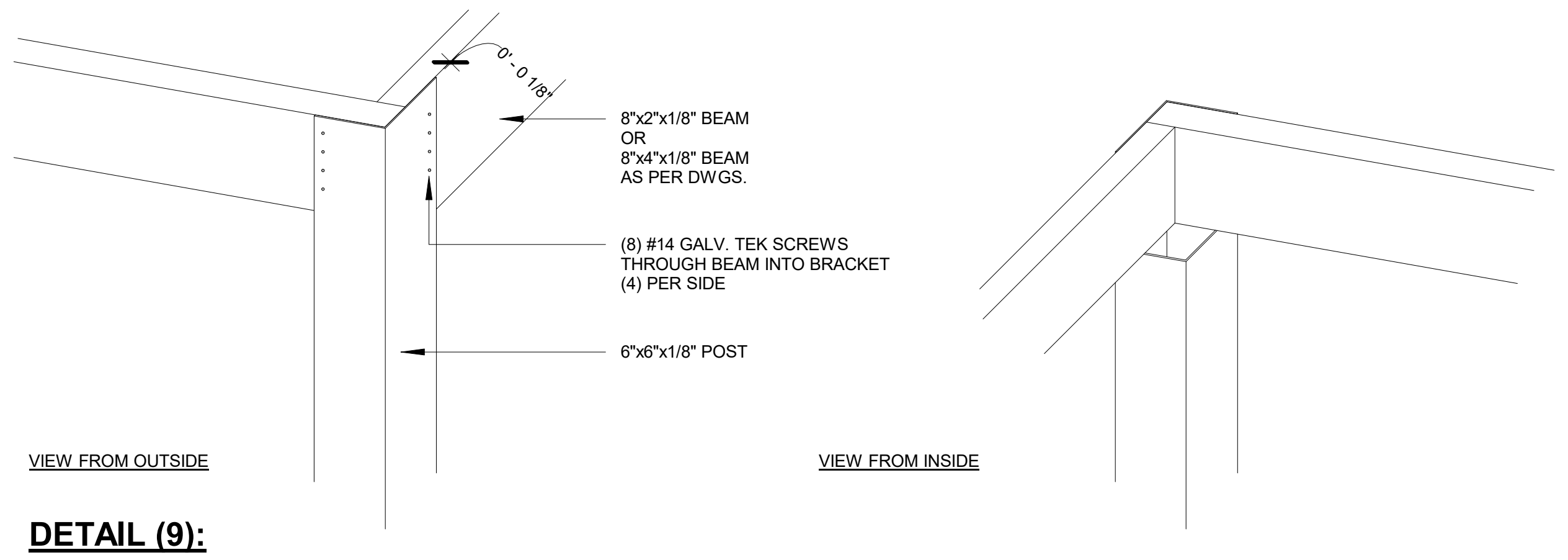
Schedules

A011

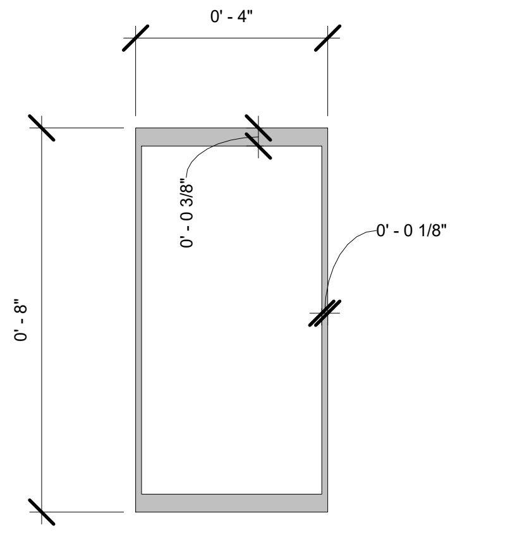
Printed: 12/19/2024



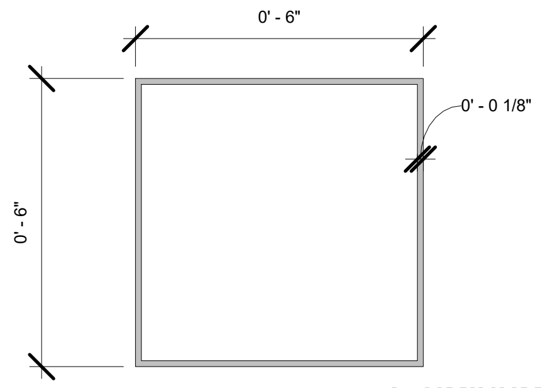
1 Prefab Aluminum Trellis 3D View



DETAIL (9):
CORNER POST CONNECTION



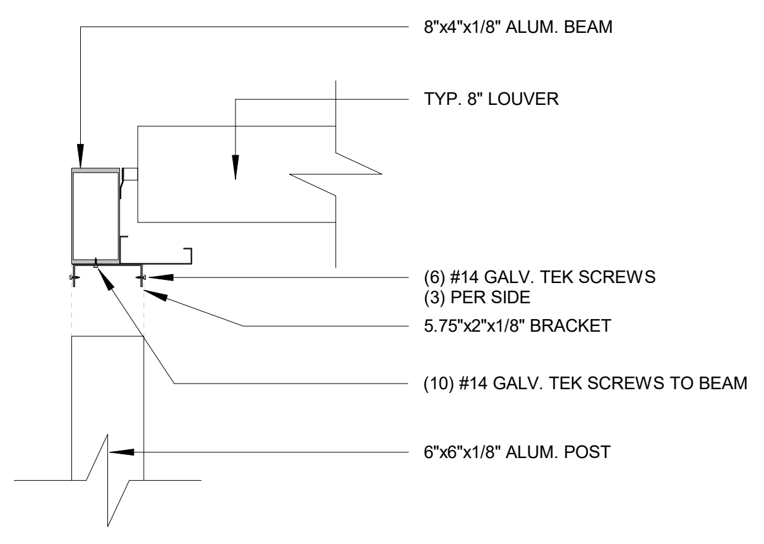
SECTION: 4x8 ALUMINUM BEAM



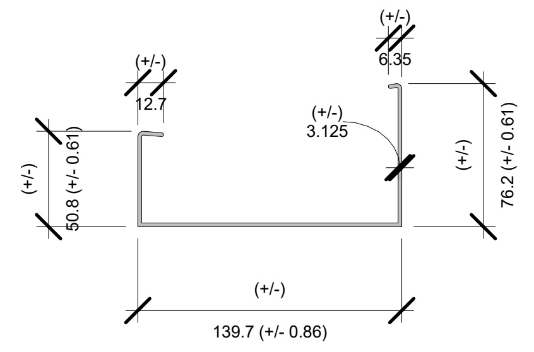
SECTION: 6x6 ALUMINUM POST

THE FOLLOWING ARE 6061-T6
2X8
4X8
4X4
6X6
LOUVER BLADE
2X2
2X4
2X6

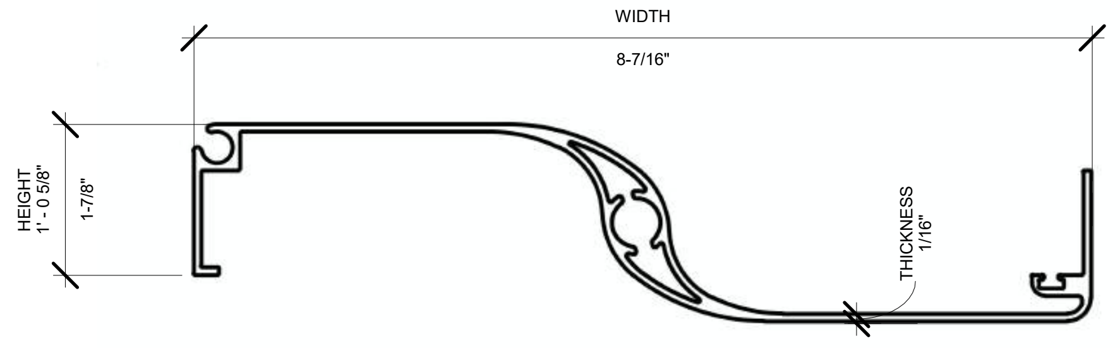
ALL OTHER MEMBERS ARE 6063-T5



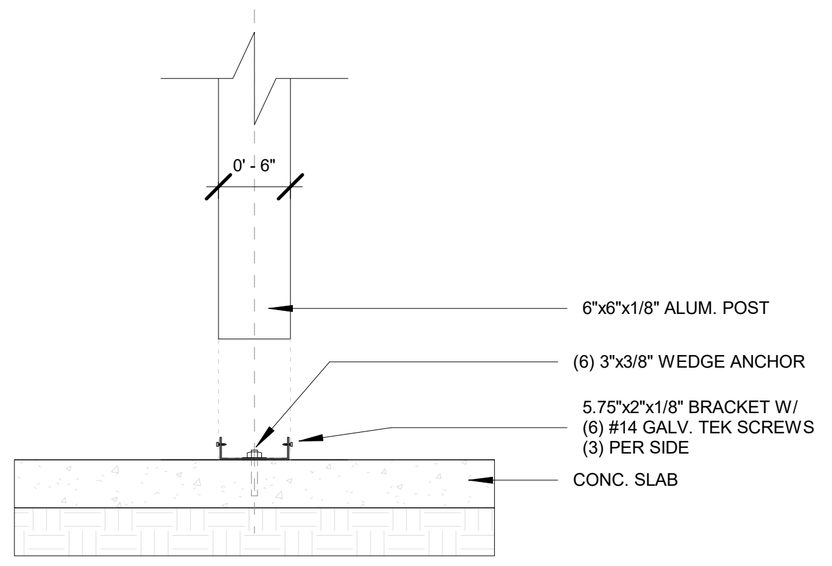
DETAIL (2b):
POST CONNECTION DETAIL (6x6 POST TO 4x8 BEAM)



GUTTER



LOUVER BLADE



DETAIL (3b):
POST ANCHOR DETAIL (6x6 POST TO CONCRETE)
(TYP. CONC. SLAB OR CONC. PILE)

2 Trellis Details

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Prefab Aluminum Trellis

A012

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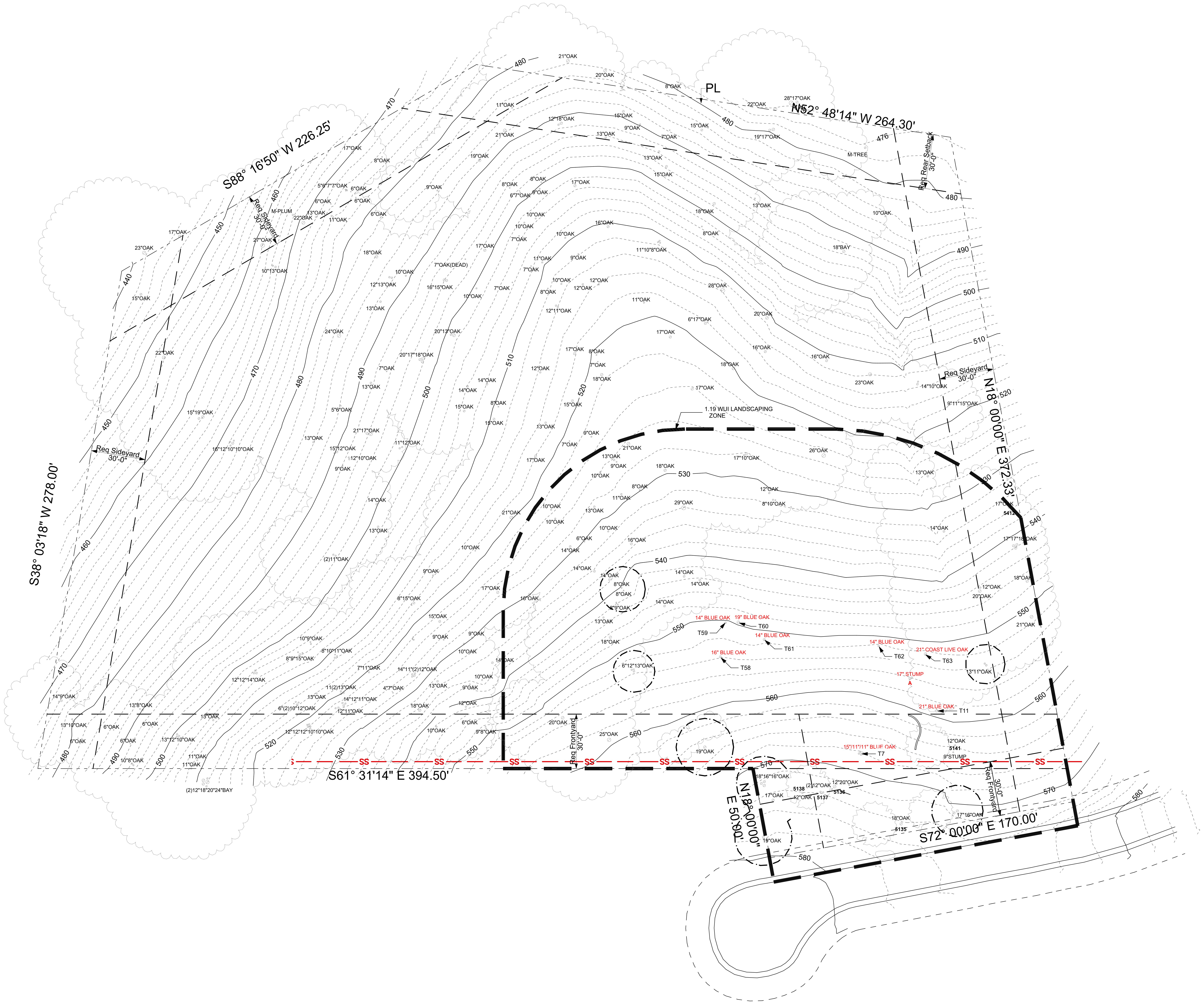

2
A1.0
Existing Site Plan
SCALE: 1" = 30'

0 30' 60'

NOTES

1. GENERAL

1.19 WUI LANDSCAPING ZONE
100' DISTANCE FROM BUILDING.

30. LANDSCAPING, TREE AND TREE PROTECTION MEASURES

30.30 TREE PROTECTION FENCE
PROVIDE TREE PROTECTION FENCING PER ARBORIST REPORT / CITY REQUIREMENTS

T7 TREE #7 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 15"/11"/11"
HEIGHT: 40'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T11 TREE #11 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 21"
HEIGHT: 55'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T58 TREE #58 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 16"
HEIGHT: 35'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T59 TREE #59 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 14"
HEIGHT: 40'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T60 TREE #60 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 19"
HEIGHT: 40'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T61 TREE #61 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 14"
HEIGHT: 40'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

T62 TREE #62 TO BE REMOVED
SPECIES: BLUE OAK (QUERCUS DOUGLASII)
D.B.H.: 11"
HEIGHT: 35'
PROTECTED TREE: NO
STATUS: TO BE REMOVED

T63 TREE #63 TO BE REMOVED
SPECIES: COAST LIVE OAK (QUERCUS AGRIFOLIA)
D.B.H.: 21"
HEIGHT: 45'
PROTECTED TREE: YES
STATUS: TO BE REMOVED

ALL OTHER TREES ARE TO REMAIN; SEE THE ARBORIST REPORT FOR SPECIES, TRUNK DIAMETER, HEIGHT, SPREAD AND PROTECTED STATUS.

***TREES TO BE REMOVED**

TREES TBD	SIZE
5134	14"12"10"
5412	17"
A	17"
5413	19"
5414	12"
5415	16"
5416	19"
5131	13"
B	15"

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(E) Site Plan

A1.0

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NOTES

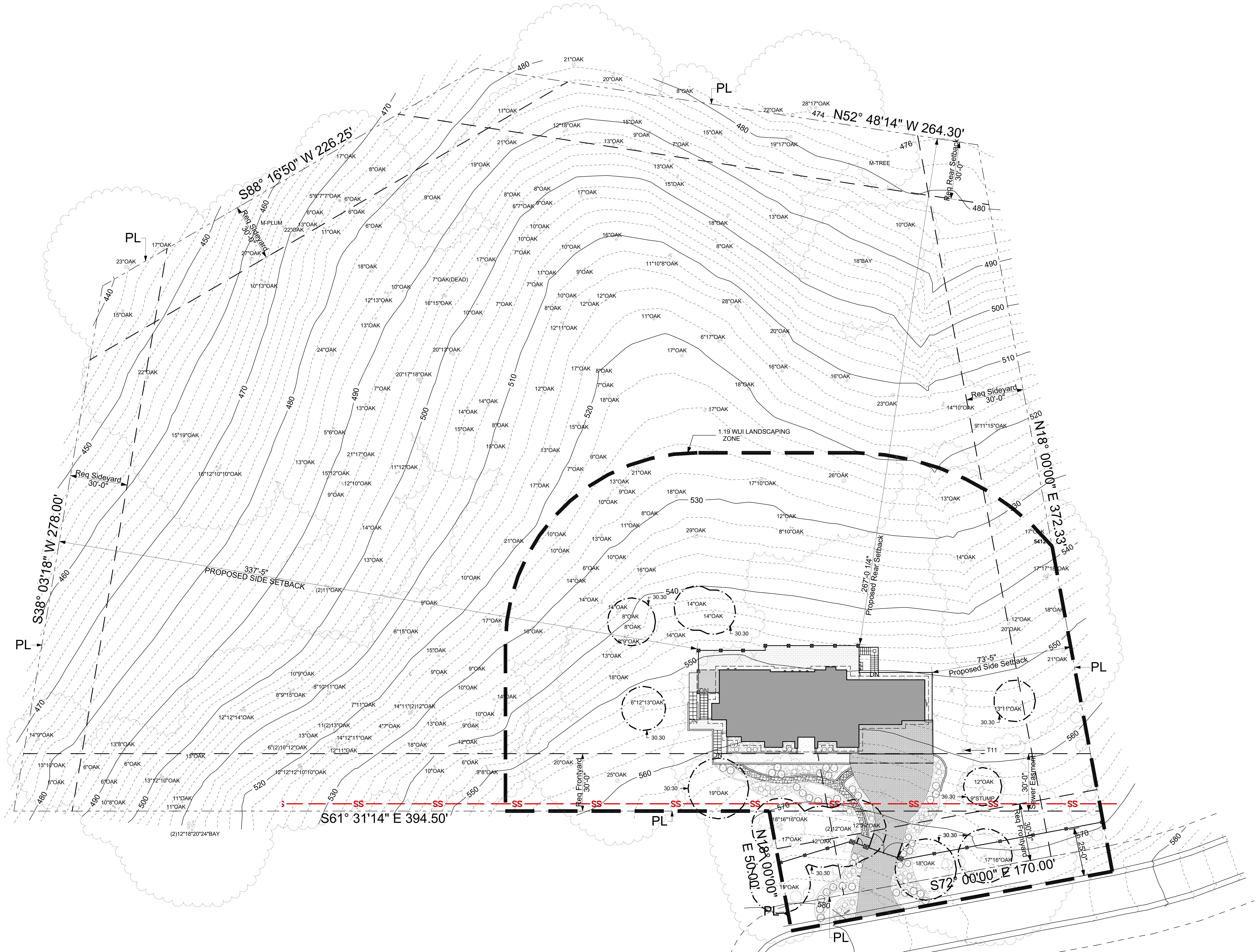
1. GENERAL

1.19 WUI LANDSCAPING ZONE
100' DISTANCE FROM BUILDING.

SYMBOL LEGEND

○ **TYPE I TREE PROTECTION**
6'-0" HIGH CHAIN LINK FENCE

SEE THE ARBORIST REPORT FOR TREE SPECIES, TRUNK DIAMETER, HEIGHT, SPREAD AND PROTECTED STATUS.



2
A1.1

(P) Overall Site Plan

SCALE: 1" = 30'

0 30' 60'

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(P) Overall Site Plan

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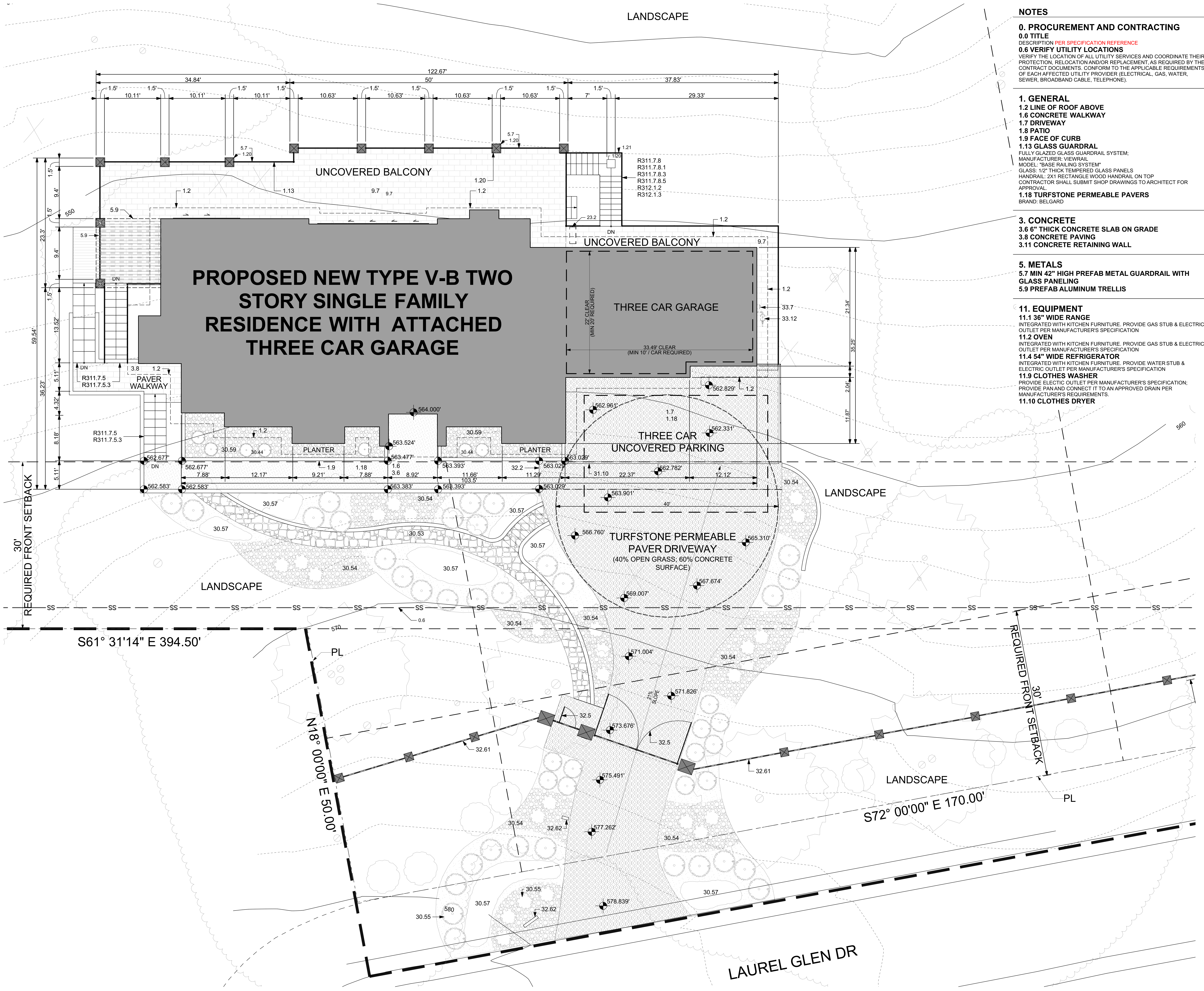
Printed: 12/19/2024



2
A1.2

(P) Enlarged Site Plan

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

NOTES

0. PROCUREMENT AND CONTRACTING

0.0 TITLE
DESCRIPTION PER SPECIFICATION REFERENCE

0.6 VERIFY UTILITY LOCATIONS
VERIFY THE LOCATION OF ALL UTILITY SERVICES AND COORDINATE THEIR PROTECTION, RELOCATION AND/OR REPLACEMENT, AS REQUIRED BY THE CONTRACT DOCUMENTS. CONFORM TO THE APPLICABLE REQUIREMENTS OF EACH AFFECTED UTILITY PROVIDER (ELECTRICAL, GAS, WATER, SEWER, BROADBAND CABLE, TELEPHONE).

1. GENERAL

1.2 LINE OF ROOF ABOVE
1.6 CONCRETE WALKWAY
1.7 DRIVEWAY
1.8 PATIO
1.9 FACE OF CURB
1.13 GLASS GUARDRAL
FULLY GLAZED GLASS GUARDRAIL SYSTEM;
MANUFACTURER: VIEWRAIL
MODEL: "BASE RAILING SYSTEM"
GLASS: 1/2" THICK TEMPERED GLASS PANELS
HANDRAIL: 2X1 RECTANGLE WOOD HANDRAIL ON TOP
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ARCHITECT FOR APPROVAL.

1.18 TURFSTONE PERMEABLE PAVERS
BRAND: BELGARD

3. CONCRETE

3.6 6" THICK CONCRETE SLAB ON GRADE
3.8 CONCRETE PAVING
3.11 CONCRETE RETAINING WALL

5. METALS

5.7 MIN 42" HIGH PREFAB METAL GUARDRAIL WITH GLASS PANELING
5.9 PREFAB ALUMINUM TRELLIS

11. EQUIPMENT

11.1 36" WIDE RANGE
INTEGRATED WITH KITCHEN FURNITURE. PROVIDE GAS STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.2 OVEN
INTEGRATED WITH KITCHEN FURNITURE. PROVIDE GAS STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.4 54" WIDE REFRIGERATOR
INTEGRATED WITH KITCHEN FURNITURE. PROVIDE WATER STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.9 CLOTHES WASHER
PROVIDE ELECTIC OUTLET PER MANUFACTURER'S SPECIFICATION; PROVIDE PAN AND CONNECT IT TO AN APPROVED DRAIN PER MANUFACTURER'S REQUIREMENTS.

11.10 CLOTHES DRYER
PROVIDE ELECTIC OUTLET PER MANUFACTURER'S SPECIFICATION; PROVIDE DRYER VENT TO OUTSIDE AIR PER MANUFACTUTRER'S SPECIFICATION AND CMC 504

12. FURNISHINGS

12.2 BUILT-IN FURNITURE / CASEWORK
SEE INTERIOR ELEVATIONS FOR DETAILS; PROVIDE FINISH SAMPLES TO OWNER / ARCHITECT FOR APPROVAL

12.4 KITCHEN ISLAND
SEE INTERIOR ELEVATIONS FOR DETAILS; COORDINATE LAYOUT AND DIMENSIONS WITH KITCHEN EQUIPMENT MANUFACTURER'S SPACIFICATIONS; PROVIDE HOT AND COLD WATER STUBS, GAS STUBS, WASTEWATER PIPING AND ELECTRICAL OUTLETS AS REQUIRED BY EQUIPMENT MANUFACTURER. PROVIDE FINISH SAMPLES TO OWNER / ARCHITECT FOR APPROVAL

12.5 COUNTERTOP
PROVIDE SAMPLE TO OWNER / ARCHITECT FOR APPROVAL

12.7 GARAGE FURNITURE / CASEWORK

14. CONVEYING EQUIPMENT

14.1 ELEVATIOR
MANUFACTURER / MODEL:
INSTALL PER MANUFACTURER'S SPECIFICATIONS; COORDINATE WITH STRUCTURAL

14.2 ELEVATOR SHAFT

22. PLUMBING

22.7 HANDSINK
COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.8 KITCHEN SINK
COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.9 SHOWER
COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT. SLOPE FLOOR MIN. 1/8"/FT TOWARDS DRAIN;

22.18 SHOWER BENCH
22.19 FREE STANDING BATH

23. HEATING, VENTILATION, AIR CONDITIONING

23.2 HEAT PUMP OUTDOOR UNIT
LOCATED UNDER DECK

30. LANDSCAPING, TREE AND TREE PROTECTION MEASURES

30.30 TREE PROTECTION FENCE
PROVIDE TREE PROTECTION FENCING PER ARBORIST REPORT / CITY REQUIREMENTS

30.53 DECOMPOSED GRANITE
OVER CLASS 2 PERMEABLE BASE ROCK

30.54 GRAY PEBBLES
1" TO 2"

30.55 PERENNIALS & SHRUBS
FIRE RESISTANT

30.57 GROUNDCOVER
FIRE RESISTANT

30.59 PEBBLE MULCH & LOW GROWING DECIDUOUS PLANTS
FIRE RESISTANT

31. EARTHWORK

31.10 STORM DRAINS
SITE STORM DRAINS SHALL BE PLASTIC SEWER PIPES WITH MANUFACTURED ELBOWS AND FITTINGS, GLUED AND CONNECTED WATERTIGHT AS PER THE MANUFACTURER'S RECOMMENDATIONS.

32. EXTERIOR IMPROVEMENTS

32.2 UNIT PERMEABLE PAVING
32.5 GATE
32.61 METAL FENCE
32.62 CALL BOX
32.63 ADDRESS SIGN

33. UTILITIES

33.7 NEW 400 AMP ELECTRICAL METER SERVICE AND PANEL
LOCATED UNDER DECK.
PROVIDE A NEW 400AMP METER / PANEL. CONTRACTOR SHALL CONTACT SERVICE PROVIDER AND OBTAIN ALL REQUIRED APPROVALS PRIOR TO CONSTRUCTION. SEE ELECTRICAL PLANS FOR DETAILS.

33.12 NEW GAS METER
LOCATED UNDER DECK.
CONTRACTOR SHALL CONTACT GAS SERVICE PROVIDER, NOTIFY ABOUT THE PROPOSED CONSTRUCTION AND OBTAIN ALL REQUIRED PERMITS AND APPROVAL PRIOR TO CONSTRUCTION. SEE PLUMBING PLAN FOR DETAILS.

GR. CALIFORNIA GREEN BUILDING CODE NOTES

GR4.3. WATER EFFICIENCY AND CONSERVATION
PER CALGREEN 4.3

GR4.303.1.1 WATER CLOSETS
THE FLUSH VOLUME OF WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS / FLUSH. TANK TYPE TOILETS SHALL BE US. EPA CERTIFIED. DUAL FLUSH TOILETS VOLUME IS DEFINED AS COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. PER CALGREEN 4.303.1.1

GR4.303.1.4 FAUCETS
PER CALGREEN 4.303.1.4

GR4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS
THE MAX. FLOW RATE OF LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MIN. FLOW RATE SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI. PER CALGREEN 4.303.1.4.1

R. CALIFORNIA RESIDENTIAL CODE NOTES

R311.7.5 RISER HEIGHT AND TREAD DEPTH
RESIDENTIAL STAIR TREADS SHALL HAVE A MIN DEPTH OF 10".
RESIDENTIAL STAIR RISERS SHALL HAVE HAVE A MIN HEIGHT OF 7 3/4". PER CRC 311.7.5

R311.7.5.3 STAIR TREAD DETAILS
STAIR TREADS MUST BE DETAILED IN THE FOLLOWING WAY:
- THE TOLERANCE BETWEEN THE SMALLEST AND THE LARGEST TREAD DEPTH OR RISER HEIGHT SHALL NOT EXCEED 0.375" WITHIN A FLIGHT.
- THE CURVATURE RADIUS AT THE LEADING EDGE OR BEVELING OF NOSING SHALL NOT EXCEED 0.5"
- RISERS SHALL BE VERTICAL OR SLOPED A MAX. OF 30 DEGREES FROM THE VERTICAL.
- THE LEADING EDGE SHALL NOT PROJECT MORE THAN 1.25" BEYOND TREAD BELOW. PER CRC 311.7.5.3

R311.7.8 HANDRAILS
ALL STAIRWAYS IN RESIDENTIAL USES SHALL HAVE A HANDRAIL ON AT LEAST ONE SIDE. PER CRC 311.7.8

R311.7.8.1 HANDRAIL HEIGHT
HANDRAIL HEIGHT SHALL BE A MIN. OF 34" AND A MAX. OF 38" ABOVE STAIR TREAD NOSING OR RAMP SURFACES. PER CRC 311.7.8.1

R311.7.8.3 HANDRAIL CLEARANCE
HANDRAILS SHALL HAVE A MINIMUM CLEARANCE OF 1 1/2" FROM THE WALL OR OTHER SURFACES. PER CRC 311.7.8.3

R311.7.8.5 CIRCULAR AND NON CIRCULAR SHAPE HANDRAIL
CIRCULAR HANDRAILS ARE TO HAVE A MINIMUM DIAMETER OF 1 1/4" AND NOT GREATER THAN 2". NON-CIRCULAR HANDRAILS SHALL HAVE A MINIMUM PERIMETER DIMENSION OF 4" BUT NOT GREATER THAN 6 1/4" AND A CROSS SECTIONAL DIMENSION OF 1" MIN. PER CRC 311.7.8.5

R312.1.2 GUARD HEIGHT
HEIGHT OF GUARDS SHALL BE NOT LESS THAN 42" MEASURED FROM: A, FROM THE WALKING SURFACES; B. ON STAIRS MEASURED FROM THE LEADING EDGE OF TREADS;
EXCEPTION: IN OPEN SIDES OF STAIRS IN RESIDENTIAL STAIRS THE HEIGHT OF GUARDS ARE ALLOWED TO BE 36" MIN. PER CRC 312.1.2

R312.1.3 GUARD OPENING LIMITATIONS
GUARDS SHALL NOT HAVE ANY OPENINGS THAT ALLOW A SPHERE 4" DIAMETER TO PASS THROUGH. PER CRC 312.1.3

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LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
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(P) Enlarged Site Plan

A1.2

Printed: 12/19/2024

DIMENSION LEGEND

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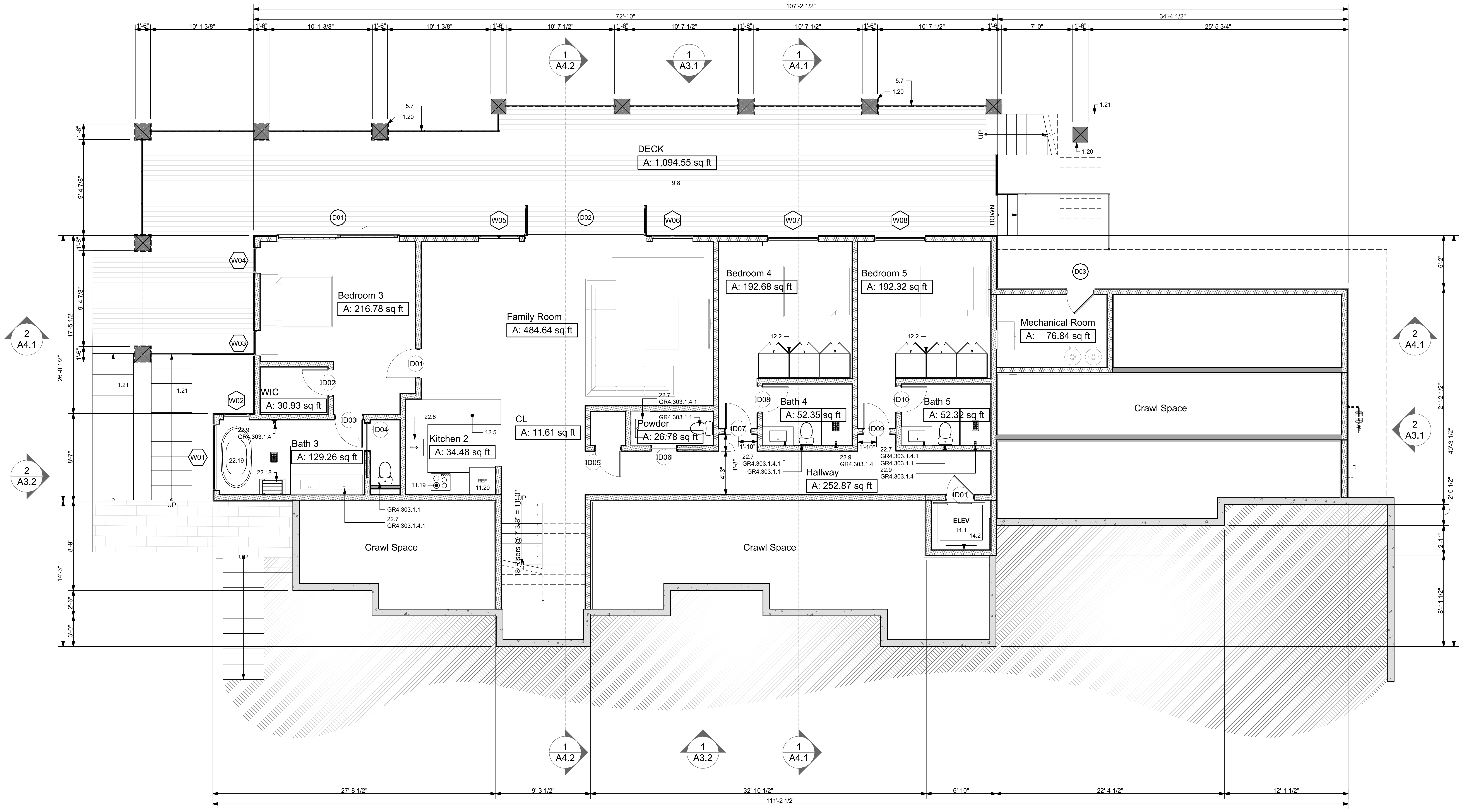
4'-0"	DIMENSION TO CENTERLINE
0"	TOP OF STRUCTURE (SLAB OR PLYWOOD) ELEVATION
F.F. 0"	FINISHED FLOOR ELEVATION
2"	DROP AT DOOR THRESHOLD



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A1.3

First Floor

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

NOTES

0. PROCUREMENT AND CONTRACTING

0.0 TITLE

DESCRIPTION PER SPECIFICATION REFERENCE

11. EQUIPMENT

11.19 ELECTRIC COOKTOP

11.20 30" WIDE REFRIGERATOR

PROVIDE WATER STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

12. FURNISHINGS

12.2 BUILT-IN FURNITURE / CASEWORK

SEE INTERIOR ELEVATIONS FOR DETAILS; PROVIDE FINISH SAMPLES TO OWNER / ARCHITECT FOR APPROVAL

12.5 COUNTERTOP

PROVIDE SAMPLE TO OWNER / ARCHITECT FOR APPROVAL

14. CONVEYING EQUIPMENT

14.1 ELEVATIOR

MANUFACTURER / MODEL:
INSTALL PER MANUFACTURER'S SPECIFICATIONS; COORDINATE WITH STRUCTURAL

14.2 ELEVATOR SHAFT

22. PLUMBING

22.7 HANDSINK

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.8 KITCHEN SINK

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.9 SHOWER

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT. SLOPE FLOOR MIN. 1/8"/FT TOWARDS DRAIN;

22.18 SHOWER BENCH

22.19 FREE STANDING BATH

GR. CALIFORNIA GREEN BUILDING CODE NOTES

GR4.3. WATER EFFICIENCY AND CONSERVATION

PER CALGREEN 4.3

GR4.303.1.1 WATER CLOSETS

THE FLUSH VOLUME OF WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS / FLUSH. TANK TYPE TOILETS SHALL BE US. EPA CERTIFIED. DUAL FLUSH TOILETS VOLUME IS DEFINED AS COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. PER CALGREEN 4.303.1.1

GR4.303.1.4 FAUCETS

PER CALGREEN 4.303.1.4

GR4.303.1.4.1 RESIDENTIAL LAVATORYFAUCETS

THE MAX. FLOW RATE OF LAVATORYFAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MIN. FLOW RATE SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI. PER CALGREEN 4.303.1.4.1

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First Floor Plan

A1.3

Printed: 12/19/2024

DIMENSION LEGEND

4'-0"	DIMENSION TO STUDS, JOISTS, CONCRETE OR STRUCTURAL CORE
4'-0"	DIMENSION TO FINISHED WALL, SLAB, FLOOR, CEILING SURFACES OR CLEARANCES
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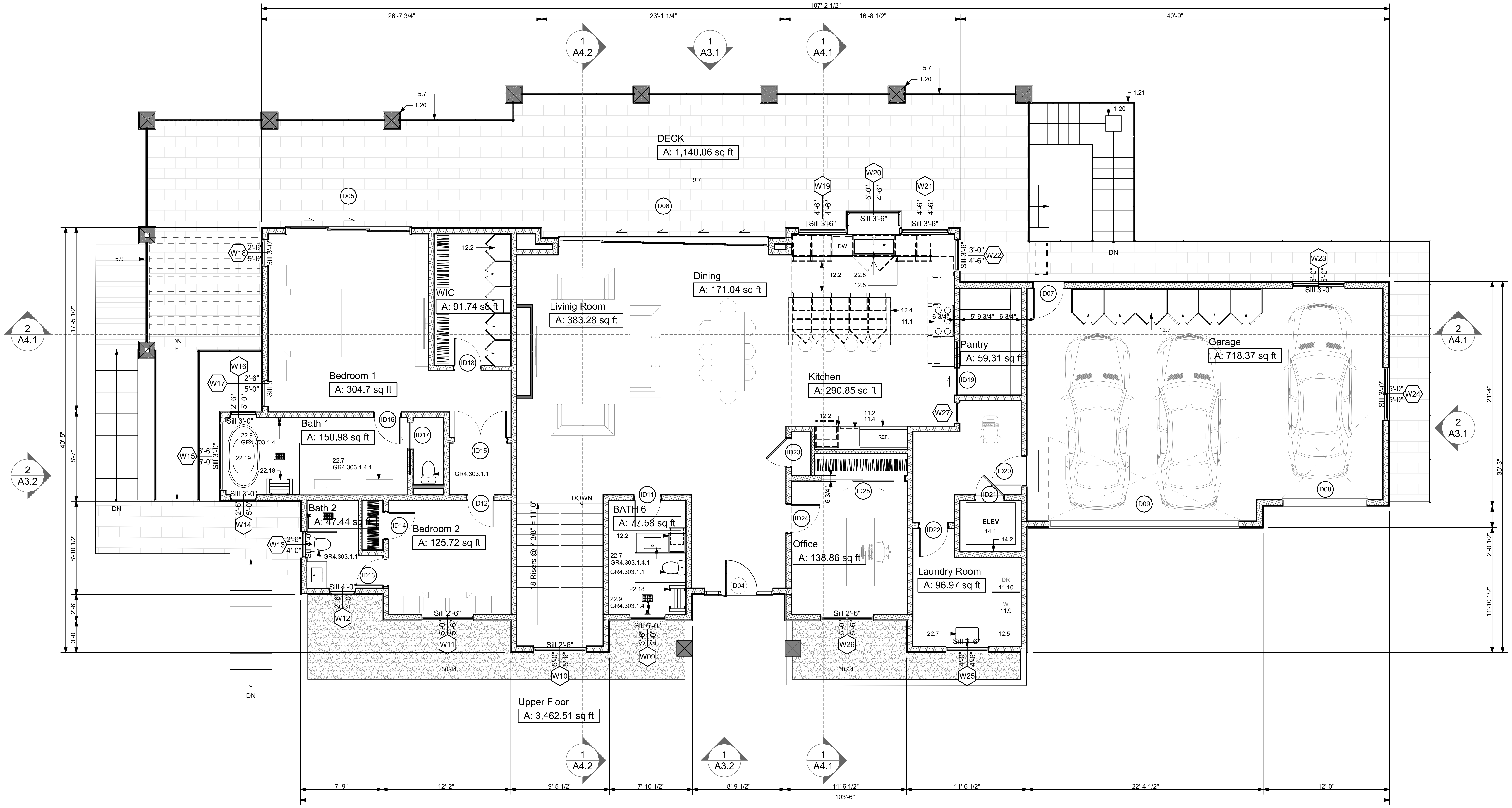
0"	TOP OF STRUCTURE (SLAB OR PLYWOOD) ELEVATION
F.F. 0"	FINISHED FLOOR ELEVATION
2"	DROP AT DOOR THRESHOLD



1 A1.4 **Second Floor**

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

NOTES

0. PROCUREMENT AND CONTRACTING

0.0 TITLE

DESCRIPTION PER SPECIFICATION REFERENCE

11. EQUIPMENT

11.1 36" WIDE RANGE

INTEGRATED WITH KITCHEN FURNITURE. PROVIDE GAS STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.2 OVEN

INTEGRATED WITH KITCHEN FURNITURE. PROVIDE GAS STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.4 54" WIDE REFRIGERATOR

INTEGRATED WITH KITCHEN FURNITURE. PROVIDE WATER STUB & ELECTRIC OUTLET PER MANUFACTURER'S SPECIFICATION

11.9 CLOTHES WASHER

PROVIDE ELECTIC OUTLET PER MANUFACTURER'S SPECIFICATION; PROVIDE PAN AND CONNECT IT TO AN APPROVED DRAIN PER MANUFACTURER'S REQUIREMENTS.

11.10 CLOTHES DRYER

PROVIDE ELECTIC OUTLET PER MANUFACTURER'S SPECIFICATION; PROVIDE DRYER VENT TO OUTSIDE AIR PER MANUFACTUTRER'S SPECIFICATION AND CMC 504

12. FURNISHINGS

12.2 BUILT-IN FURNITURE / CASEWORK

SEE INTERIOR ELEVATIONS FOR DETAILS; PROVIDE FINISH SAMPLES TO OWNER / ARCHITECT FOR APPROVAL

12.4 KITCHEN ISLAND

SEE INTERIOR ELEVATIONS FOR DETAILS; COORDINATE LAYOUT AND DIMENSIONS WITH KITCHEN EQUIPMENT MANUFACTURER'S SPACIFICATIONS; PROVIDE HOT AND COLD WATER STUBS, GAS STUBS, WASTEWATER PIPING AND ELECTRICAL OUTLETS AS REQUIRED BY EQUIPMENT MANUFACTURER. PROVIDE FINISH SAMPLES TO OWNER / ARCHITECT FOR APPROVAL

12.5 COUNTERTOP

PROVIDE SAMPLE TO OWNER / ARCHITECT FOR APPROVAL

12.7 GARAGE FURNITURE / CASEWORK

14. CONVEYING EQUIPMENT

14.1 ELEVATIOR

MANUFACTURER / MODEL:
INSTALL PER MANUFACTURER'S SPECIFICATIONS; COORDINATE WITH STRUCTURAL

14.2 ELEVATOR SHAFT

22. PLUMBING

22.7 HANDSINK

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.8 KITCHEN SINK

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT

22.9 SHOWER

COORDINATE MANUFACTURER / MODEL WITH OWNER / ARCHITECT. SLOPE FLOOR MIN. 1/8"/FT TOWARDS DRAIN;

22.18 SHOWER BENCH

22.19 FREE STANDING BATH

GR. CALIFORNIA GREEN BUILDING CODE NOTES

GR4.3. WATER EFFICIENCY AND CONSERVATION

PER CALGREEN 4.3

GR4.303.1.1 WATER CLOSETS

THE FLUSH VOLUME OF WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS / FLUSH. TANK TYPE TOILETS SHALL BE US. EPA CERTIFIED. DUAL FLUSH TOILETS VOLUME IS DEFINED AS COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. PER CALGREEN 4.303.1.1

GR4.303.1.4 FAUCETS

PER CALGREEN 4.303.1.4

GR4.303.1.4.1 RESIDENTIAL LAVATORY FAUCETS

THE MAX. FLOW RATE OF LAVATORY FAUCETS SHALL NOT EXCEED 1.2 GALLONS PER MINUTE AT 60 PSI. THE MIN. FLOW RATE SHALL NOT BE LESS THAN 0.8 GALLONS PER MINUTE AT 20 PSI. PER CALGREEN 4.303.1.4.1

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Second Floor Plan

A1.4

Printed: 12/19/2024

DIMENSION LEGEND

4'-0"	DIMENSION TO STUDS, JOISTS, CONCRETE OR STRUCTURAL CORE
4'-0"	DIMENSION TO FINISHED WALL, SLAB, FLOOR, CEILING SURFACES OR CLEARANCES
4'-0"	DIMENSION TO CENTERLINE
0"	TOP OF STRUCTURE (SLAB OR PLYWOOD) ELEVATION
F.F. 0"	FINISHED FLOOR ELEVATION
2"	DROP AT DOOR THRESHOLD

NOTES

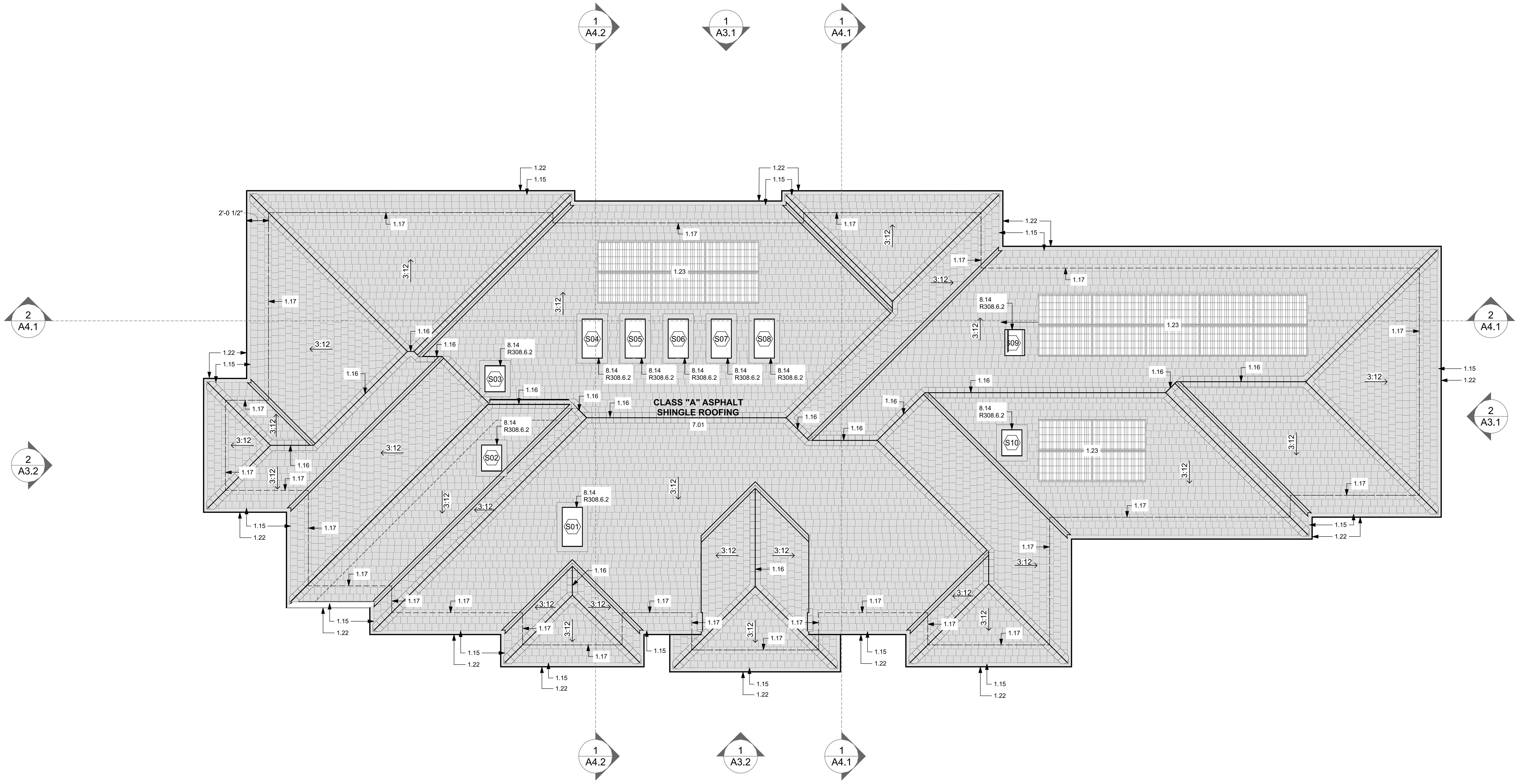
1. GENERAL
1.15 ROOF EAVE
1.16 ROOF RIDGE
1.17 LINE OF WALLS BELOW
1.22 METAL GUTTER
1.23 SOLAR PHOTOVOLTAIC AREA
SHOWN FOR COORDINATION

6. WOOD, PLASTICS, COMPOSITES
6.2 2X6 WOOD STUD

7. THERMAL & MOISTURE PROTECTION
7.01 CLASS "A" ROOF ASSEMBLY
ASPHALT SHINGLES OVER
MIN. 15# FELT OR PER MFR SPECS
OVER ROOF SHEATHING (SSD)
W/ RADIANT BARRIER LAYER ON BOTTOM SIDE
OVER 2" AIRSPACE
OVER R-30 ROXUL INSULATION WITHIN
2X8 RAFTERS (SSD)

8. OPENINGS
8.14 SKYLIGHT
- MANUFACTURER / MODEL: VELUX / VSE (FOR OPERABLE); VELUX FS (FOR FIXED)
- U VALUE: PER TITLE-24 ENERGY REPORT
- SHGC VALUE: PER T-24 ENERGY REPORT
- INTERIOR / EXTERIOR COLOR: TBD
- GLAZING: CLEAR GALZING UNLESS NOTED OTHERWISE; LOW-E OR BETTER; INBOARD PANE OF GLASS TO BE LAMINATED GLASS (WITH NOT LESS THAN A 30-MIL (0.76 MM) POLYVINYL BUTYRAL INTERLAYER), OUTBOARD PANE TO BE TEMPERED.
- SCREEN: TYPICAL AT OPERABLE SKYLIGHTS

R. CALIFORNIA RESIDENTIAL CODE NOTES
R308.6.2 GLAZING IN SKYLIGHTS
GLAZING MATERIAL FOR SKYLIGHTS SHALL BE TEMPERED GLASS, LAMINATED GLASS, WIRED GLASS OR AN APPROVED RIGID PLASTIC. PER CRC 308.6.2



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A1.5
T.O. Plate
SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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Roof Plan

A1.5

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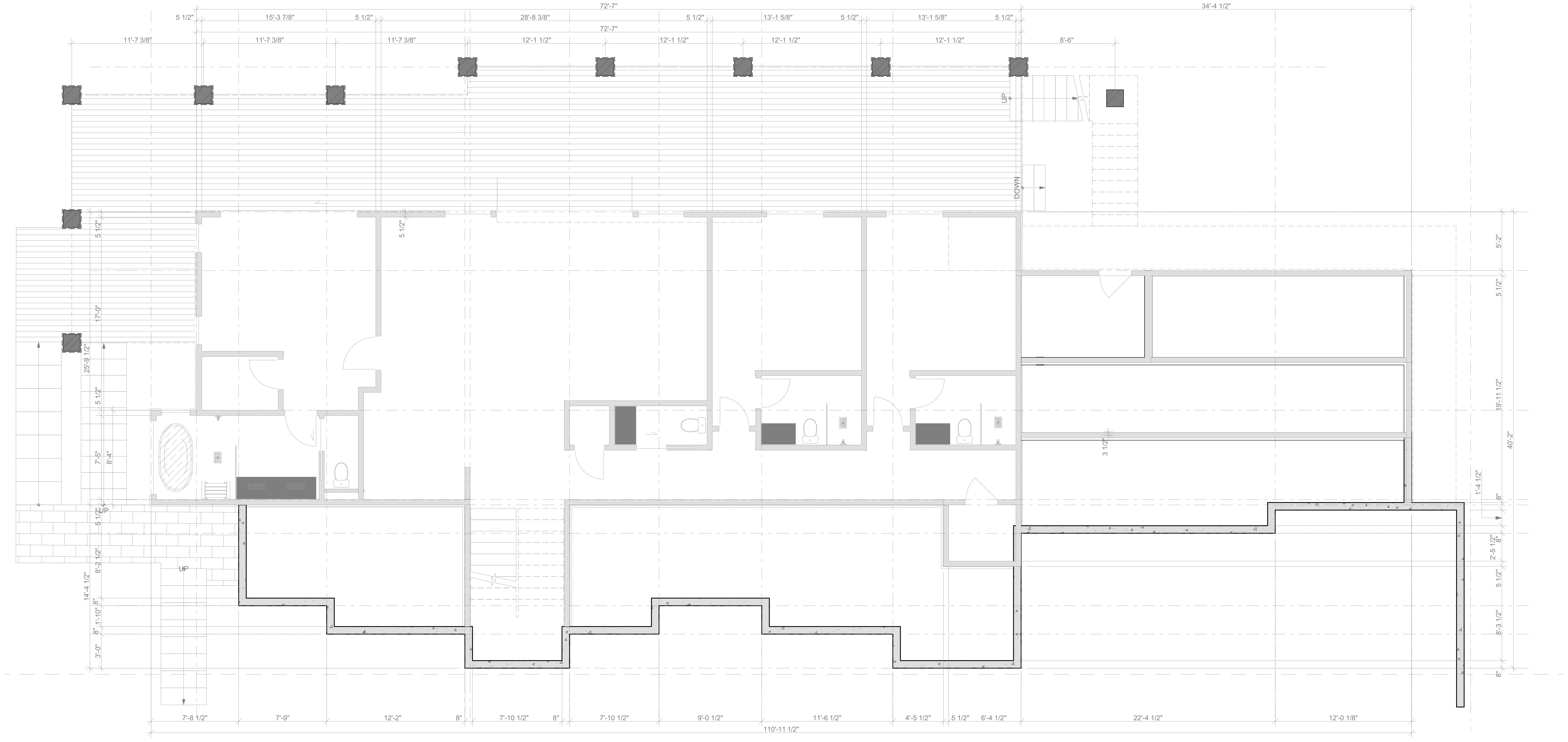
2"	DROP AT DOOR THRESHOLD

NOTES



1
A2.1

First Floor Layout Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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First Floor Layout Plan

A2.1

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DIMENSION LEGEND

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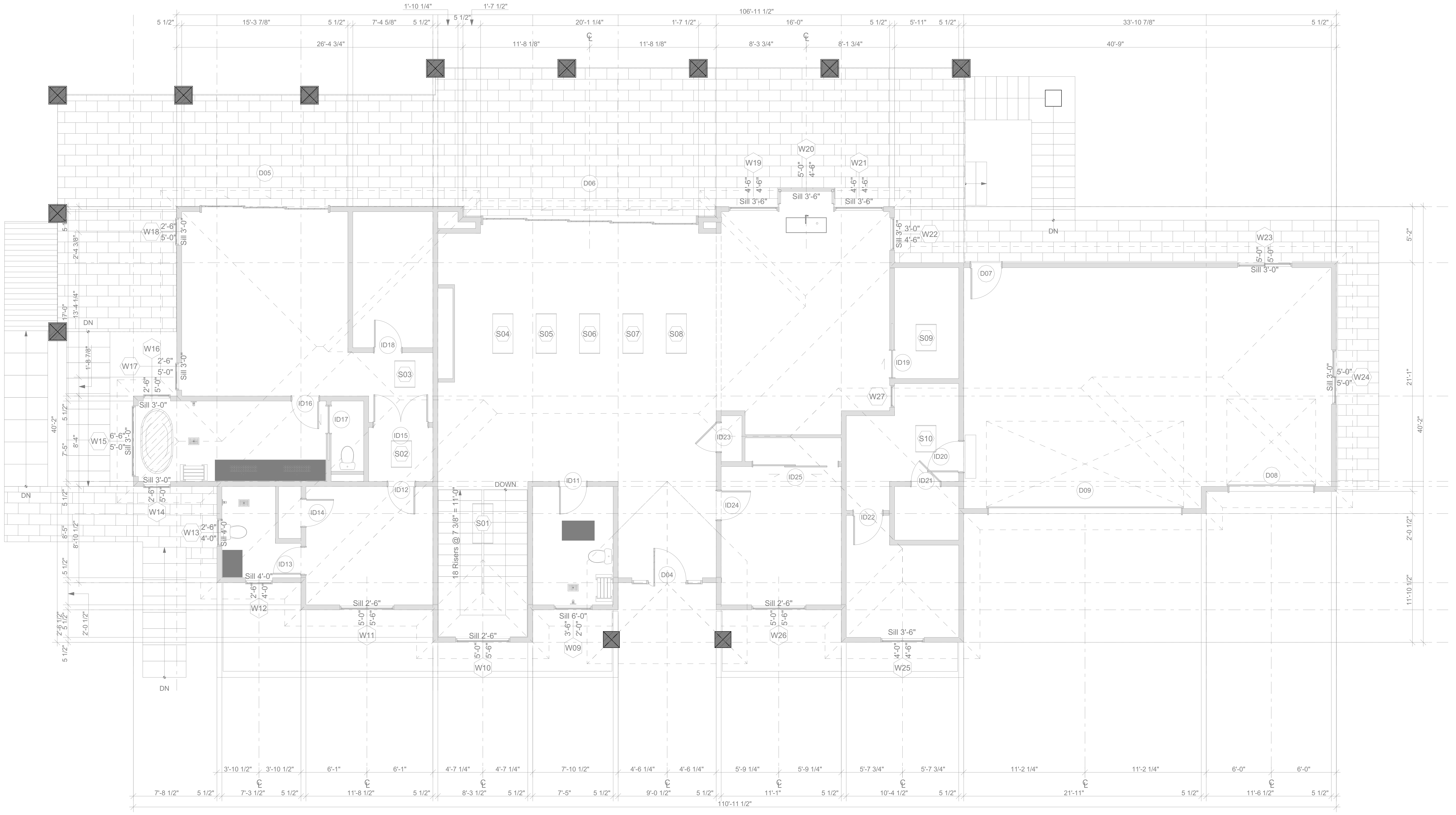

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A2.2

Second Floor Layout Plan

SCALE: 3/16" = 1'-0"

0 4' 8' 12'

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A2.2

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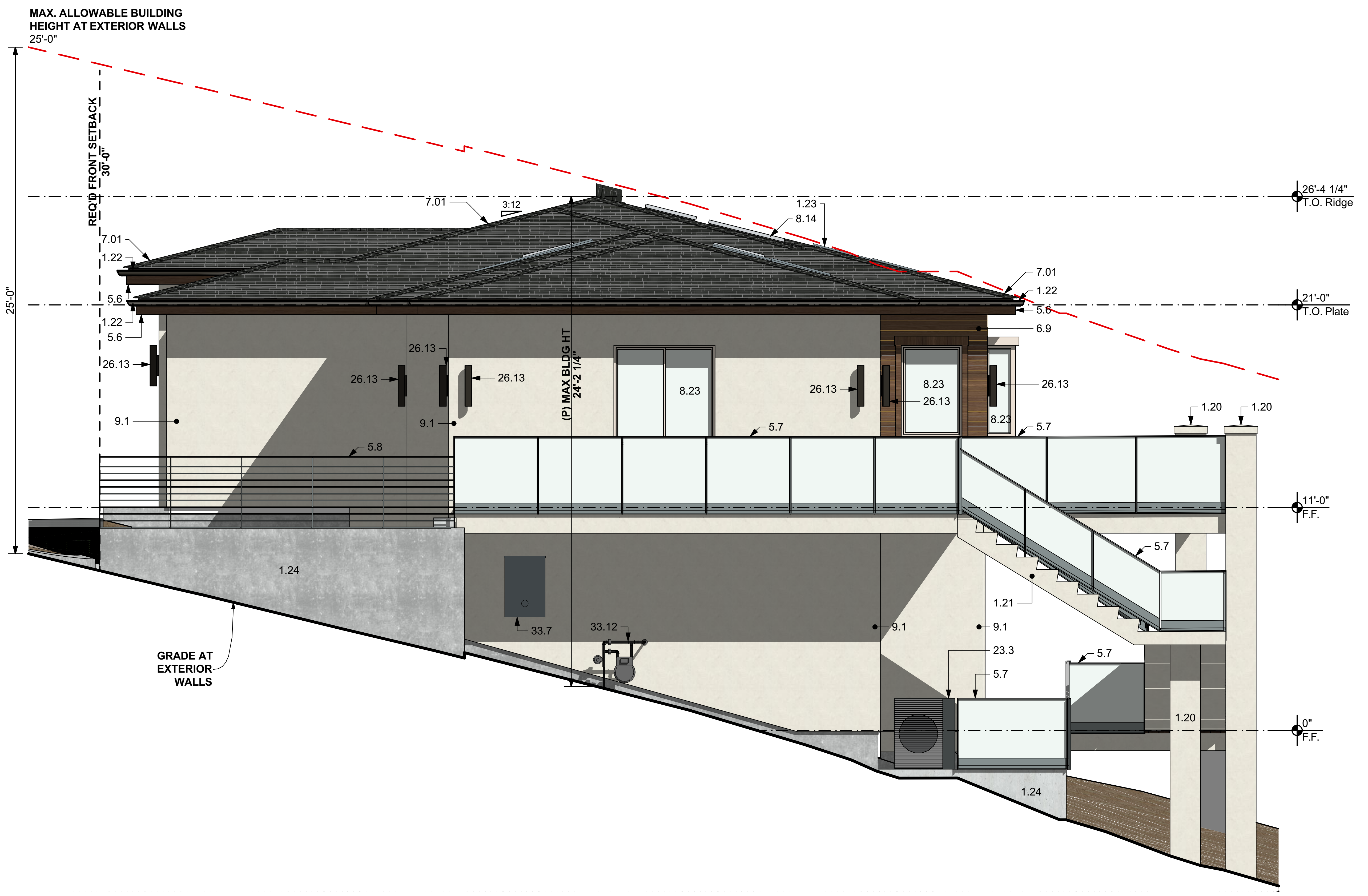

2
A3.1
East Elevation

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

NOTES

1. GENERAL

1.20 EXTERIOR COLUMNS
1.21 EXTERIOR STAIRCASE
1.22 METAL GUTTER
1.23 SOLAR PHOTOVOLTAIC AREA
SHOWN FOR COORDINATION
1.24 CONCRETE WALL

5. METALS

5.6 WOOD FASCIA
COLOR: GRAY
5.7 MIN 42" HIGH PREFAB METAL GUARDRAIL WITH GLASS PANELING
5.8 MIN 42" HIGH PREFAB METAL GUARDRAIL
5.9 PREFAB ALUMINUM TRELLIS

6. WOOD, PLASTICS, COMPOSITES

6.9 6" HORIZONTAL WOOD / COMPOSITE T&G SIDING
MANUFACTURER: PER WUI
MODEL / PRODUCT: PER WUI
COLOR: WRC DARK OPAQUE STAIN

7. THERMAL & MOISTURE PROTECTION

7.01 CLASS "A" ROOF ASSEMBLY
ASPHALT SHINGLES OVER
MIN. 15# FELT OR PER MFR SPECS
OVER ROOF SHEATHING (SSD)
W/ RADIANT BARRIER LAYER ON BOTTOM SIDE
OVER 2" AIRSPACE
OVER R-30 ROXUL INSULATION WITHIN
2X8 RAFTERS (SSD)

8. OPENINGS

8.14 SKYLIGHT
- MANUFACTURER / MODEL: VELUX / VSE (FOR OPERABLE); VELUX FS (FOR FIXED)
- U VALUE: PER TITLE-24 ENERGY REPORT
- SHGC VALUE: PER T-24 ENERGY REPORT
- INTERIOR / EXTERIOR COLOR: TBD
- GLAZING: CLEAR GALZING UNLESS NOTED OTHERWISE; LOW-E OR BETTER; INBOARD PANE OF GLASS TO BE LAMINATED GLASS (WITH NOT LESS THAN A 30-MIL (0.76 MM) POLYVINYL BUTYRAL INTERLAYER), OUTBOARD PANE TO BE TEMPERED.
- SCREEN: TYPICAL AT OPERABLE SKYLIGHTS

8.23 WOOD DOORS & WINDOWS
MANUFACTURER: LINCOLN
PRODUCT: WOOD CLAD FRAME
COLOR: CHAMPAGNE BEIGE EXTERIOR FINISH/WOOD INTERIOR
USE THIS PRODUCT OF APPROVED EQUAL.

9. FINISHES

9.1 7/8" STUCCO
MANUFACTURER:
MODEL / PRODUCT: SANTA BARBARA FINSH
COLOR: CREAM
PROVIDE EXPANSION CONTROL JOINTS AS REQUIRED BY STUCCO MANUFACTURER. ALIGN WITH JAMBS AND SILLS OF OPENINGS OR CENTER ON WALLS.

23. HEATING, VENTILATION, AIR CONDITIONING

23.3 AC CONDENSER
THE CENDENSER SHALL MET ALL THE REQUIREMENTS OF THE T-24 ENERGY REPORT. SEE SHEET G1.05 TO G1.07 FOR REQUIREMENTS.

26. ELECTRICAL, LIGHTING

26.13 EXTERIOR WALL SCONCE
COLOR: BLACK METAL

33. UTILITIES

33.7 NEW 400 AMP ELECTRICAL METER SERVICE AND PANEL
LOCATED UNDER DECK.
PROVIDE A NEW 400AMP METER / PANEL. CONTRACTOR SHALL CONTACT SERVICE PROVIDER AND OBTAIN ALL REQUIRED APPROVALS PRIOR TO CONSTRUCTION. SEE ELECTRICAL PLANS FOR DETAILS.

33.12 NEW GAS METER
LOCATED UNDER DECK.
CONTRACTOR SHALL CONTACT GAS SERVICE PROVIDER, NOTIFY ABOUT THE PROPOSED CONSTRUCTION AND OBTAIN ALL REQUIRED PERMITS AND APPROVAL PRIOR TO CONSTRUCTION. SEE PLUMBING PLAN FOR DETAILS.

1
A3.1
North Elevation

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

0 2' 4' 8'

908 Industrial Ave Palo Alto CA 94303
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929 Laurel Glen Drive
Palo Alto , CA 94304

Project Number: Project Number

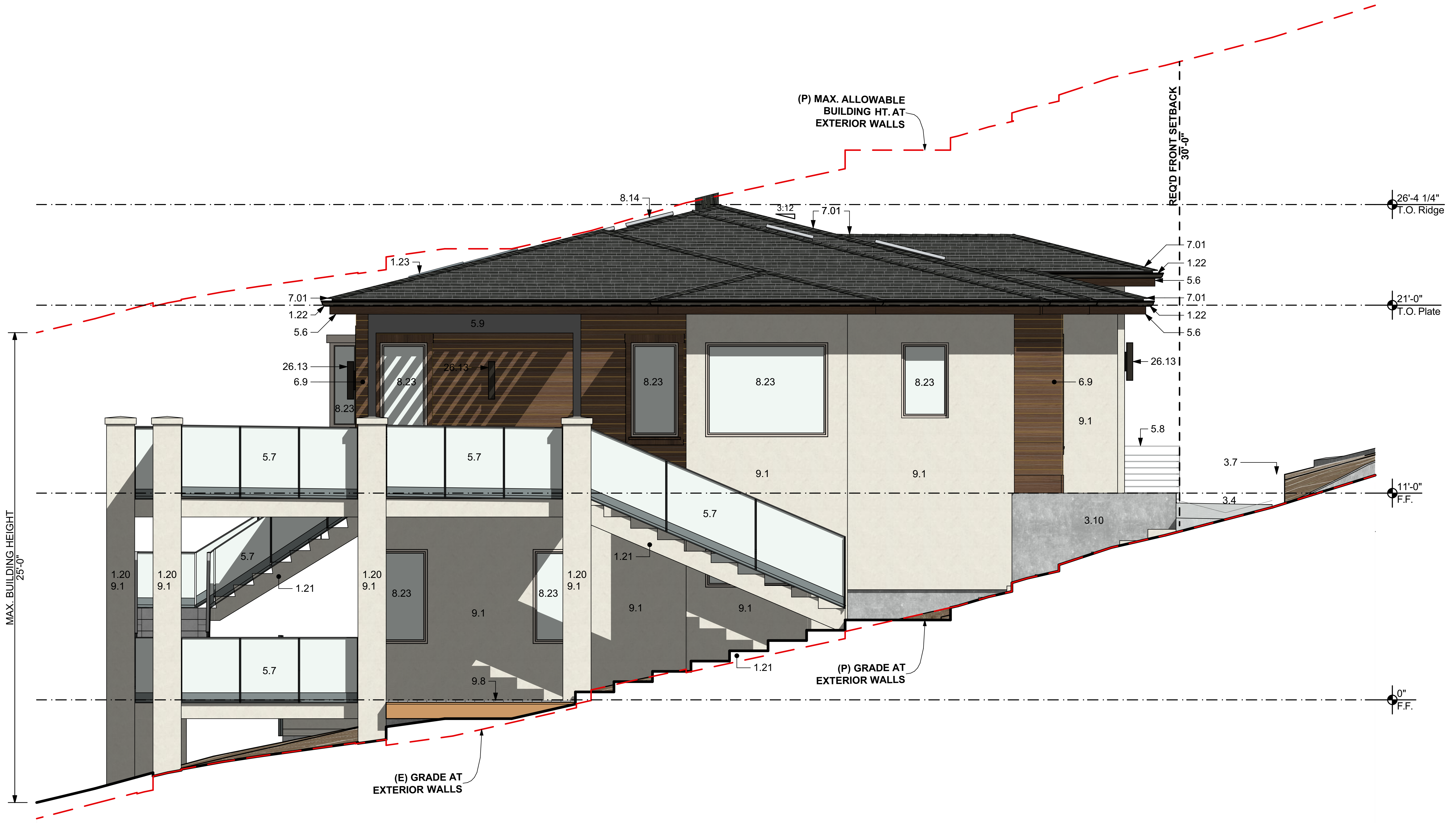
LICENSED ARCHITECT
DANIEL J. HRUBY
No. C-31344
REN. 2/28/2025
STATE OF CALIFORNIA

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

North & East Elevation

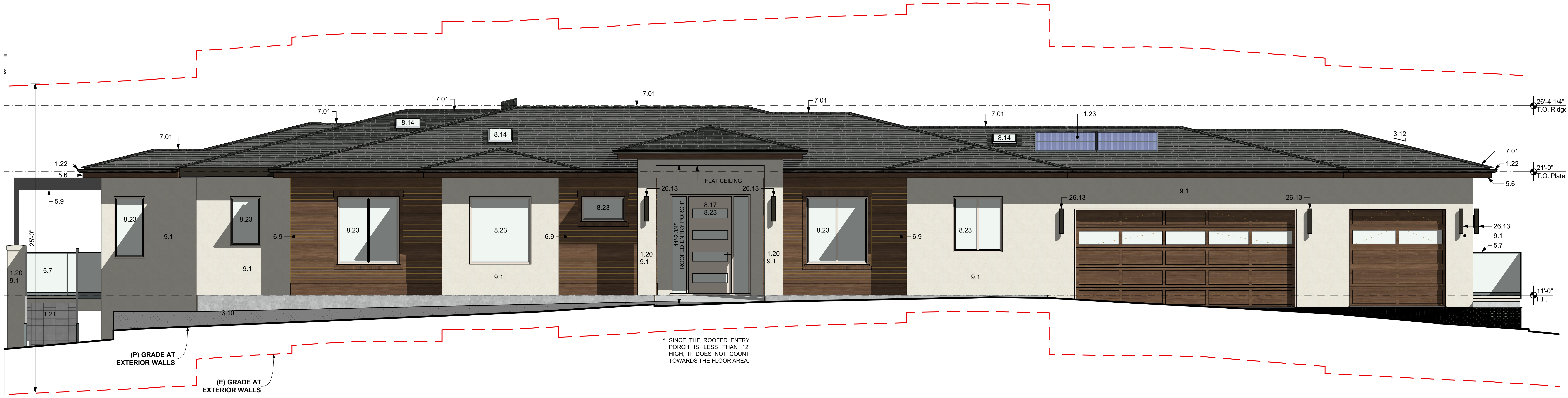
A3.1

Printed: 12/19/2024



2 A3.2 West Elevation

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



* SINCE THE ROOFED ENTRY PORCH IS LESS THAN 12' HIGH, IT DOES NOT COUNT TOWARDS THE FLOOR AREA.

1 A3.2 South Elevation

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

0 2' 4' 8'

NOTES

1. GENERAL
1.20 EXTERIOR COLUMNS
1.21 EXTERIOR STAIRCASE
1.22 METAL GUTTER
1.23 SOLAR PHOTOVOLTAIC AREA
32.61 SHOWN FOR COORDINATION

3. CONCRETE
3.4 CONCRETE RAMP
32.61 FROM SIDEWALK TO FRONT DOOR.
3.7 CONCRETE DRIVEWAY
32.61 CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED PER U.C.S. STANDARDS FOR CONCRETE FLATWORK. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT THE CENTER OF THE DRIVEWAY,AT GRADE BREAKS, AND AT APPROXIMATELY 8 FEET ON CENTER, BOTH WAYS. COORDINATE JOINT PATTERNS WITH FINISH LANDSCAPE DESIGN FOR HARDSCAPE AREAS.
3.10 CONCRETE WALL
3.11 CONCRETE RETAINING WALL

5. METALS
5.6 WOOD FASCIA
32.61 COLOR: GRAY
5.7 MIN 42" HIGH PREFAB METAL GUARDRAIL WITH GLASS PANELING
5.8 MIN 42" HIGH PREFAB METAL GUARDRAIL
5.9 PREFAB ALUMINUM TRELLIS

6. WOOD, PLASTICS, COMPOSITES
6.9 6" HORIZONTAL WOOD / COMPOSITE T&G SIDING
32.61 MANUFACTURER: PER WUI
MODEL / PRODUCT: PER WUI
COLOR: WRC DARK OPAQUE STAIN

7. THERMAL & MOISTURE PROTECTION
7.01 CLASS "A" ROOF ASSEMBLY
32.61 ASPHALT SHINGLES OVER
MIN. 15# FELT OR PER MFR SPECS
OVER ROOF SHEATHING (SSD)
W/ RADIANT BARRIER LAYER ON BOTTOM SIDE
OVER 2" AIRSPACE
OVER R-30 ROXUL INSULATION WITHIN
2X8 RAFTERS (SSD)

8. OPENINGS
8.14 SKYLIGHT
32.61 - MANUFACTURER / MODEL: VELUX / VSE (FOR OPERABLE); VELUX FS (FOR FIXED)
- U VALUE: PER TITLE-24 ENERGY REPORT
- SHGC VALUE: PER T-24 ENERGY REPORT
- INTERIOR / EXTERIOR COLOR: TBD
- GLAZING: CLEAR GALZING UNLESS NOTED OTHERWISE; LOW-E OR BETTER; INBOARD PANE OF GLASS TO BE LAMINATED GLASS (WITH NOT LESS THAN A 30-MIL (0.76 MM) POLYVINYL BUTYRAL INTERLAYER), OUTBOARD PANE TO BE TEMPERED.
- SCREEN: TYPICAL AT OPERABLE SKYLIGHTS

8.17 WOOD ENTRY DOOR & SIDELIGHT
8.23 WOOD DOORS & WINDOWS
32.61 MANUFACTURER: LINCOLN
PRODUCT: WOOD CLAD FRAME
COLOR: CHAMPAGNE BEIGE EXTERIOR FINISH/WOOD INTERIOR
USE THIS PRODUCT OF APPROVED EQUAL.

9. FINISHES
9.1 7/8" STUCCO
32.61 MANUFACTURER:
MODEL / PRODUCT: SANTA BARBARA FINSH
COLOR: CREAM
PROVIDE EXPANSION CONTROL JOINTS AS REQUIRED BY STUCCO MANUFACTURER. ALIGN WITH JAMBS AND SILLS OF OPENINGS OR CENTER ON WALLS.
9.8 EXTERIOR WOOD DECKING

26. ELECTRICAL, LIGHTING
26.13 EXTERIOR WALL SCONCE
32.61 COLOR: BLACK METAL

32. EXTERIOR IMPROVEMENTS
32.61 METAL FENCE

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No. C-31344
REN. 2/28/2025
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01	1st Planning Submittal	12/18/2024

South & West Elevation

A3.2

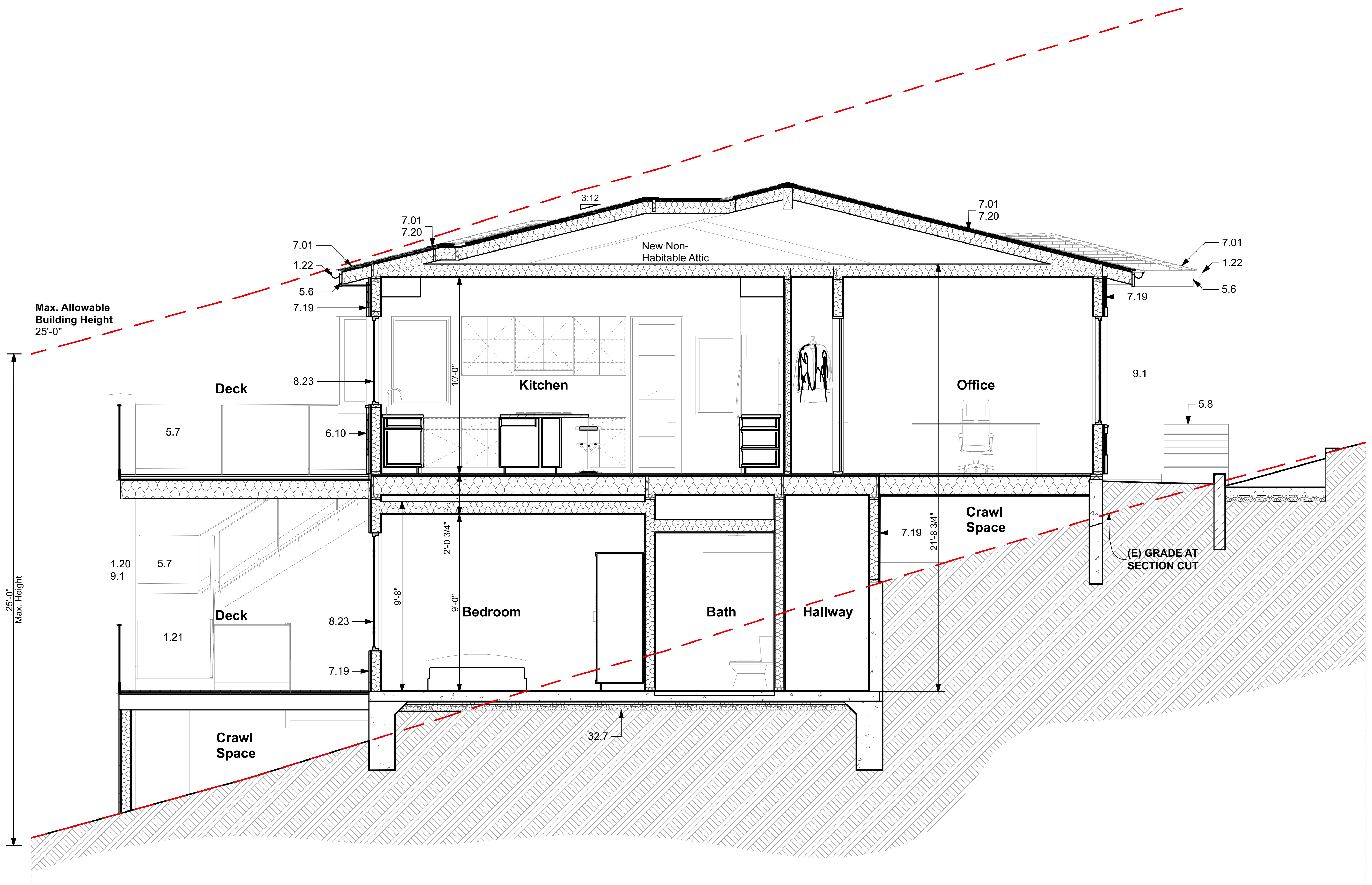
Printed: 12/19/2024

NOTES

7. THERMAL & MOISTURE PROTECTION
7.19 INSULATED WALLS
32.7 R-VALUE: R-19
7.20 INSULATED ROOF
32.7 R-VALUE: R-38

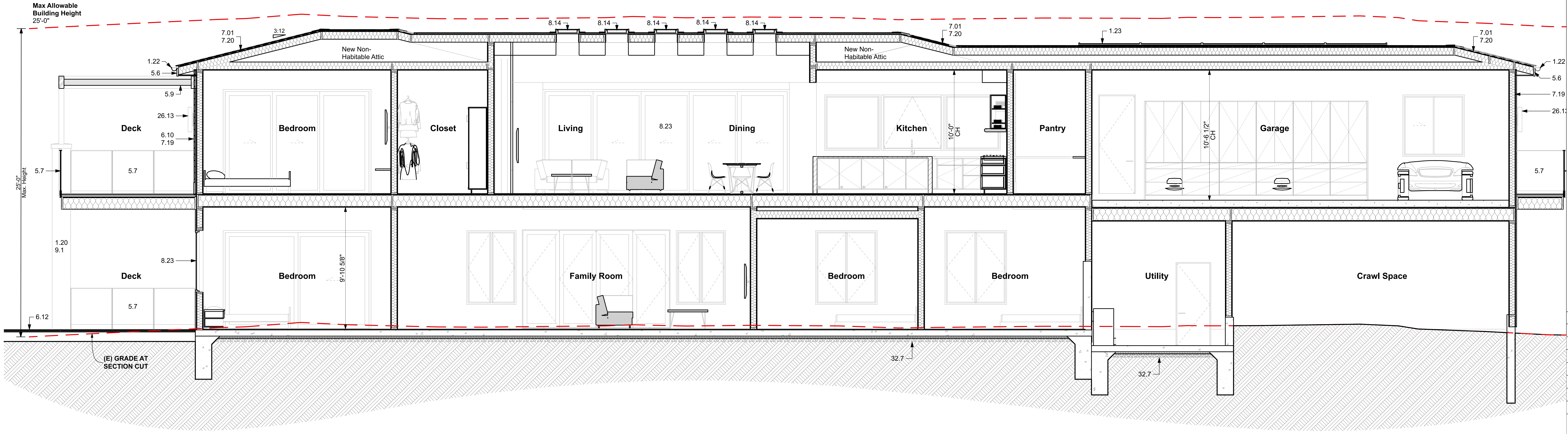
8. OPENINGS
8.14 SKYLIGHT

32. EXTERIOR IMPROVEMENTS
32.7 GRAVEL BED



1 A4.1 **Building Section**
SCALE: 1/4" = 1'-0"

0 2' 4' 8'



2 A4.1 **Longitudinal Section**
SCALE: 1/4" = 1'-0"

0 2' 4' 8'

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Project Number: Project Number

Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on extensions of the project, or other projects, except by agreement in writing and appropriate compensation to the Architect.

The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the project.

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No. C-31344
REN. 2/28/2025
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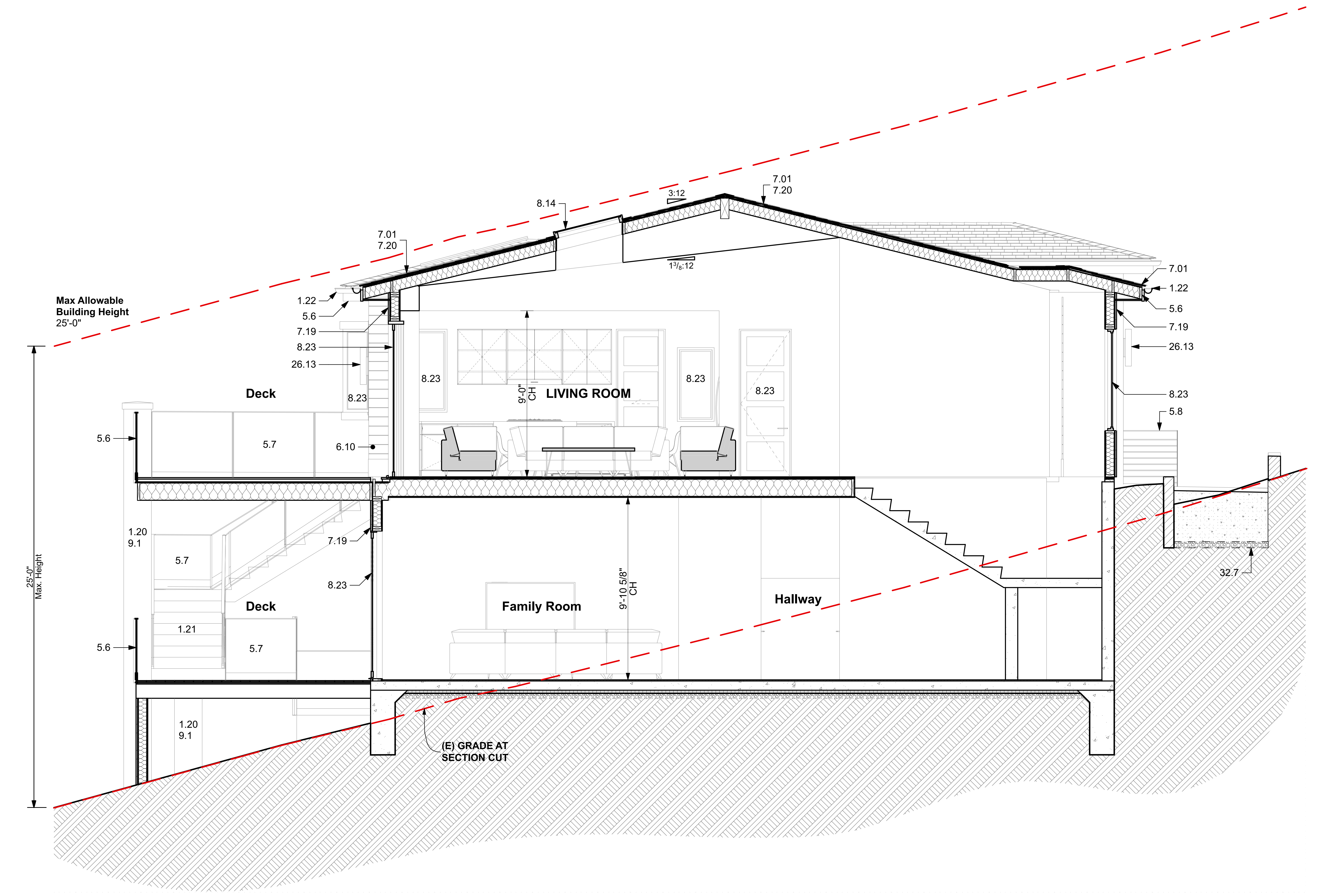
Sections

A4.1

Printed: 12/19/2024

NOTES

7. THERMAL & MOISTURE PROTECTION
7.19 INSULATED WALLS
R-VALUE: R-19
7.20 INSULATED ROOF
R-VALUE: R-38



1
A4.2

Building Section

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

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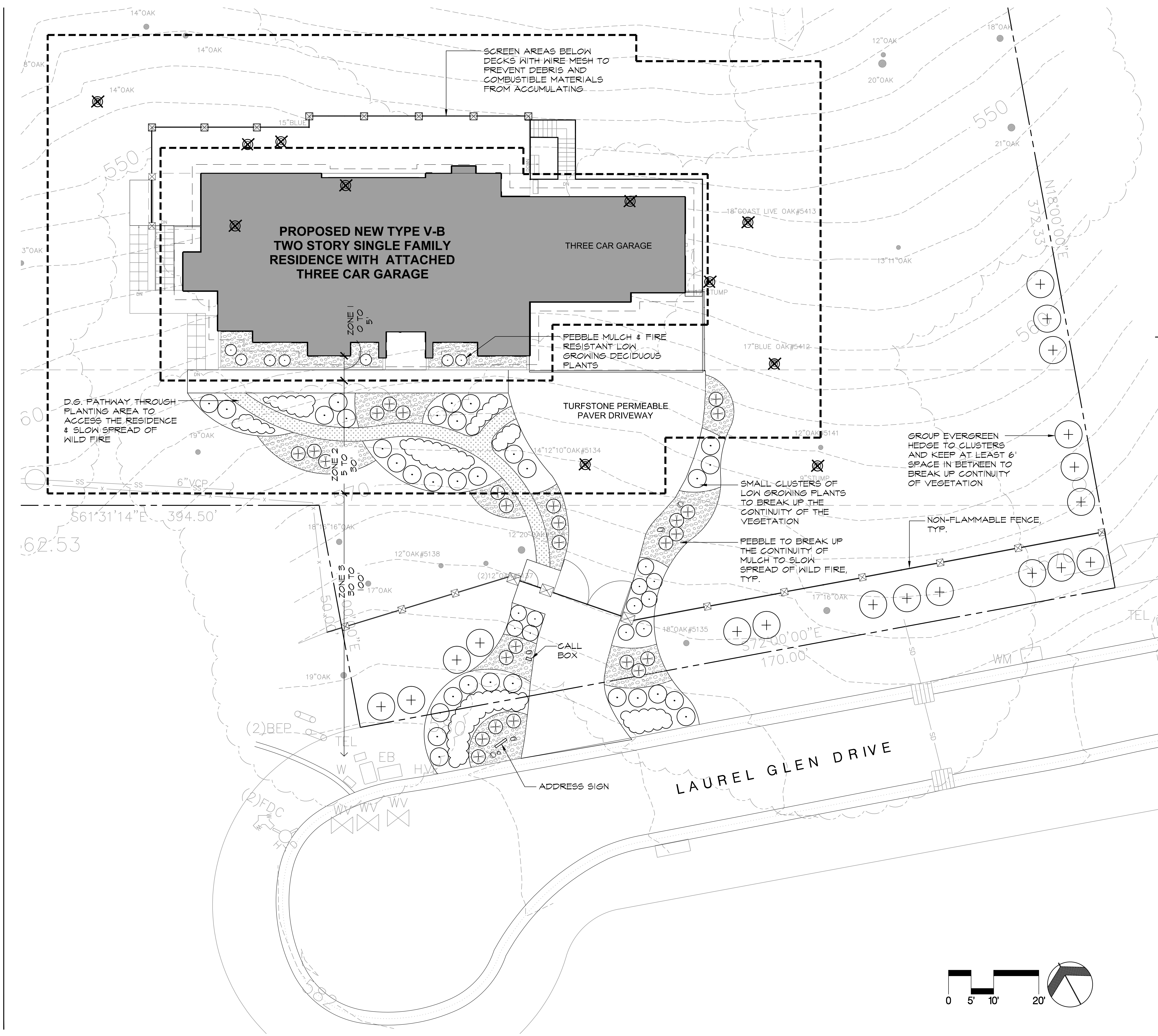

LEGEND

▨	DECOMPOSED GRANITE, OVER CLASS 2 PERMEABLE BASE ROCK
▨	GRAY PEBBLES, 1" TO 2"
⊙	FIRE RESISTANT PERENNIALS & SHRUBS
✳	FIRE RESISTANT SUCCULENTS
☁	FIRE RESISTANT GROUNDCOVER
⊕	FIRE RESISTANT EVERGREEN SCREENING HEDGE
⊗	EXISTING TREE OR STUMP TO BE REMOVED
●	EXISTING TREE TO REMAIN
—·—	PROPERTY LINE
┅	FUEL MODIFICATION ZONES, SEE NOTES ON SHEET L2

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Revisions

PRELIMINARY MASTER PLAN

Residential Site Landscape

929 Laurel Glen Drive, Palo Alto, CA

Date	10/21/2024
Scale	AS SHOWN
Drawn By	KS
Checked	LC
Project No.	10741
Cad	929la.dwg

Sheet No.
L1
of

PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	EVERGREEN OR DECIDUOUS	WATER USAGE
FIRE RESISTANT PERENNIALS						
⊙	AGAPANTHUS 'STORM CLOUD'	DARK BLUE LILY-OF-THE-NILE	1 GAL.	3'-0"	D	L
	DIETES BICOLOR	AFRICAN LILY	1 GAL.	3'-6"	E	L
	DIETES VEGETA	FORTNIGHT LILY	1 GAL.	3'-6"	E	L
	HEMEROCALLIS HYBRID 'PINK DAIQUIRI'	PINK DAYLILY	1 GAL.	3'-6"	E	M
	KNIPHOFIA UVARIA	RED HOT POKER	1 GAL.	4'-0"	E	L
	LAVANDULA ANGUSTIFOLIA	ENGLISH LAVENDER	1 GAL.	3'-0"	E	L
	LIMONIUM PEREZII	SEA LAVENDER	1 GAL.	3'-0"	E	L
	PENSTEMON X GLOXINOIDES 'MIDNIGHT'	PURPLE BEARD TONGUE	1 GAL.	3'-0"	E	M
	SEDUM 'AUTUMN JOY'	PINCUSHION FLOWER	1 GAL.	2'-0"	D	L
FIRE RESISTANT SUCCULENTS						
⊛	AEONIUM 'KIWI'	KIWI AEONIUM	1 GAL.	2'-0"	E	L
	AEONIUM ARBOREUM 'ZWARTKOP'	BLACK ROSE AEONIUM	1 GAL.	3'-0"	E	L
	AGAVE 'BLUE FLAME'	BLUE FLAME AGAVE	1 GAL.	3'-6"	E	L
	AGAVE PARRYI VAR. TRUNCATA	ARTICHOKE AGAVE	1 GAL.	3'-6"	E	L
	ECHEVERIA 'AFTERGLOW'	AFTERGLOW ECHEVERIA	1 GAL.	1'-6"	E	L
	HESPERALOE PARVIFLORA	RED YUCCA	1 GAL.	3'-6"	E	L
	SENECIO SERPENS	BLUE CHALK STICKS	1 GAL.	2'-0"	E	L
FIRE RESISTANT GROUNDCOVER						
☁	ACHILLEA MILLEOFOLIUM	YARROW	1 GAL.	2'-0"	E	L
	ARMERIA MARITIMA	COMMON THRIFT	1 GAL.	1'-0"	E	L
	AJUGA REPTANS 'BRONZE BEAUTY'	BRONZE CARPET BUGLE	1 GAL.	2'-0"	E	M
	COPROSMA KIRKII 'VARIEGATA'	COPROSMA KIRKII VARIEGATA	1 GAL.	6'-0"	E	L
	ROSMARINUS OFFICINALIS 'PROSTRATUS'	DWARF ROSEMARY	1 GAL.	6'-0"	E	L
	STACHYS BYZANTINA	LAMB'S EAR	1 GAL.	2'-0"	E	L
	TULBAGHIA VIOLACEA 'SILVER LACE'	VARIEGATED SOCIETY GARLIC	1 GAL.	2'-0"	E	L
FIRE RESISTANT SCREENING HEDGE						
⊕	ESCALLONIA 'FRADESII'	PINK ESCALLONIA	5 GAL.	6'-6"	E	M
	RHAMNUS CALIFORNICA 'EVE CASE'	COFFEEBERRY	5 GAL.	6'-6"	E	L

WUI FUEL MODIFICATION ZONES NOTES

ZONE #	ZONE NAME	DISTANCE FROM HOUSE	FIREWISE LANDSCAPE GUIDELINES
#1	IMMEDIATE ZONE	0 TO 5'	• PREVENT ANY FLAMES FROM DIRECTLY TOUCHING HOUSE • FIRE RESISTANT PLANTS • PEBBLE MULCH • NO EVERGREEN SHRUBS & PERENNIALS • MOVE ANY FLAMMABLE MATERIAL AWAY FROM BUILDING WALL • SCREEN AREAS BELOW DECKS WITH WIRE MESH TO PREVENT DEBRIS AND COMBUSTIBLE MATERIALS FROM ACCUMULATING
#2	INTERMEDIATE ZONE	5 TO 30'	• EMPLOY LANDSCAPING/HARDSCAPING TO CREATE BREAKS THAT CAN DECREASE FIRE SPREAD • CREATE FUEL BREAKS WITH DRIVEWAY, WALKWAY/PATH, AND PEBBLE MULCH • SMALL CLUSTERS OF LOW GROWING PLANTS TO BREAK UP THE CONTINUITY OF THE VEGETATION • SMALL EVERGREEN SHRUBS ARE ACCEPTABLE, NO LARGE EVERGREEN SHRUBS • DECIDUOUS, GREEN, SUCCULENT FIRE RESISTANT LANDSCAPING PLANTS ARE PREFERRED • PRUNE TREES UP TO 6 TO 10 FEET FROM THE GROUND SO A SURFACE FIRE CANNOT REACH THE CROWNS
#3	EXTENDED ZONE	30 TO 100'	• INTERRUPT FIRE'S PATH AND KEEP FLAME SMALLER AND ON THE GROUND • CREATE FUEL BREAKS WITH DRIVEWAY, WALKWAY/PATH, AND PEBBLE MULCH • SMALL CLUSTERS OF LOW GROWING PLANTS TO BREAK UP THE CONTINUITY OF THE VEGETATION • FIRE RESISTANT EVERGREEN HEDGE AT THE PERIMETER OF THE PROPERTY. GROUP EVERGREEN TO SMALL CLUSTERS AND KEEP AT LEAST 6' SPACE BETWEEN EACH GROUPS. • NON-FLAMMABLE FENCING • REMOVE DEAD PLAN AND TREE MATERIAL

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Revisions

FIREWISE LANDSCAPING LIST

Residential Site Landscape
929 Laurel Glen Drive, Palo Alto, CA

Date	10/21/2024
Scale	AS SHOWN
Drawn By	KS
Checked	LC
Project No.	10741
Cad	929la.dwg

Sheet No.
L2
of

CAUTION

- CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION: PHONE (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK.

GENERAL SITE NOTES

- ALL WORK ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS.
- CONTRACTOR SHALL REVIEW THE PLANS AND CONDUCT FIELD INVESTIGATIONS AS REQUIRED TO VERIFY EXISTING CONDITIONS AT THE PROJECT SITE; AND REPORT ANY DISCREPANCIES TO THE CIVIL ENGINEER OF RECORD.
- ALL WORK SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL OR SOIL REPORT
- ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A SEPARATE ENCROACHMENT PERMIT.
- ALL DISTANCES AND DIMENSION SHOWN HEREON ARE IN FEET AND DECIMALS THEREOF.

DEMOLITION NOTES

- CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL REQUIREMENTS TO REMOVE AND DISPOSE OF HAZARDOUS MATERIALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR DEMOLITION.
- TRENCHES AND DEPRESSIONS RESULTING FROM DEMOLITION TO BE BACKFILLED TO THE SATISFACTION OF THE PROJECT GEOTECHNICAL ENGINEER.
- CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO BEGINNING DEMOLITION ACTIVITIES AS SPECIFIED IN THE EROSION AND SEDIMENT CONTROL PLAN.

RECORD DRAWINGS

- PRIOR TO FINAL APPROVAL; A CORRECTED AND COMPLETE SET OF RECORD DRAWINGS SHALL BE SUBMITTED TO APPLICABLE MUNICIPALITIES. THE CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ANY AND ALL CHANGES MADE FROM THE ORIGINAL DRAWINGS THROUGHOUT THE DURATION OF THE ENTIRE CONSTRUCTION PERIOD.

TREE PRESERVATION

- REMOVAL OF EXISTING TREES WITHIN THE DEVELOPMENT IS SUBJECT TO THE APPROVAL OF THE LOCAL GOVERNING MUNICIPALITY.
- TREE PRESERVATION MEASURES MUST BE IN PLACE BEFORE CONSTRUCTION, DEMOLITION AND/OR GRADING ACTIVITIES COMMENCE AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD
- TREES CALLED OUT FOR PRESERVATION SHALL BE FENCED AT THE DRIPLINE. FENCING MAY OCCUR AT THE COMBINED DRIPLINES OF GROVES OF TREES. PLACE 3 INCH BARK MULCH BENEATH DRIPLINES OF TREES TO BE PRESERVED.
- FENCING SHALL BE 6 FEET TALL CHAIN LINK FENCING WITH STEEL POSTS EMBEDDED IN THE GROUND.
- NO GRADING SHALL OCCUR WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.
- NO CONSTRUCTION MATERIALS OR CONSTRUCTION VEHICLES MAY BE STORED WITHIN THE DRIPLINES/FENCED AREA OF EXISTING TREES.

PAVEMENT SECTIONS

- CONTRACTOR SHALL REFER TO THE STRUCTURAL DRAWINGS FOR BUILDING FOUNDATION SECTIONS AND PAD PREPARATIONS.
- CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT FOR EXTERIOR HARDSCAPE AND VEHICULAR PAVEMENT REQUIREMENTS.

SITE MAINTENANCE

- REMOVE ALL SEDIMENT, DEBRIS, REFUSE AND GREEN WASTE FROM STREET AND STORM DRAINS ADJOINING THE SITE. PROVIDE A RUMBLE RACK OR PLATE IF CONSTRUCTION ACCESS IS PAVED; INSTALL A GRAVELED CONSTRUCTION ENTRANCE IF NOT. DO NO DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
- SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJACENT TO THE PROJECT SITE AS NECESSARY TO KEEP THE PUBLIC RIGHT-OF-WAY FREE OF SEDIMENT OR DEBRIS TRACKED-OUT FROM CONSTRUCTION ACTIVITIES.
- PROVIDE A COVERED CONTAINMENT AREA TO STORE CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES OR OTHER MATERIALS THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM IN THE EVENT OF A SPILL.
- CONTRACTOR SHALL NOT CLEAN EQUIPMENT, MACHINERY OR TOOLS IN STREET, GUTTER OR STORM DRAIN.
- CONTRACTOR SHALL ENSURE THAT CONCRETE TRUCKS, PAINTERS OR FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM MACHINERY, TOOLS OR EQUIPMENT INTO STREET, GUTTER OR STORM DRAIN.
- PROJECT OWNER SHALL BE RESPONSIBLE FOR MAINTAINING ALL ON-SITE STORM DRAIN IMPROVEMENTS UPON PROJECT COMPLETION.

DUST CONTROL

- CONTRACTOR SHALL WATER SITE AS DEEMED NECESSARY BY THE INSPECTOR TO ENSURE PROPER DUST CONTROL FOR THE DURATION OF THE CONSTRUCTION PERIOD.
- SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJACENT TO THE PROJECT SITE AS NECESSARY TO KEEP THE PUBLIC RIGHT-OF-WAY FREE OF DUST CAUSED BY CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ENSURE ALL TRUCKS HAULING SOIL, SAND OR OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPS OR OTHER APPROPRIATE COVERINGS.

STORM DRAIN MAINTENANCE

- TO ENSURE FUNCTIONALITY; STORM DRAIN AND GRADING IMPROVEMENTS REQUIRE REGULAR MAINTENANCE. MONITOR THE DETENTION SYSTEM, CONVEYANCE LINES, ROOF GUTTERS AND DOWNSPOUTS PERIODICALLY AND REMOVE DEBRIS. GRADED SLOPES SHOULD BE MONITORED AND RE-VEGETATED AS NECESSARY.

NPDES REQUIREMENTS

- ALL ON-SITE AND OFF-SITE CONSTRUCTION ACTIVITIES SHALL ADHERE TO THE NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP's) TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING ANY MUNICIPAL SEPARATE STORM SEWER SYSTEMS.
- ERODED SEDIMENT RESULTING FROM CONSTRUCTION ACTIVITIES MUST BE RETAINED ON SITE.
- STOCKPILES OF LOOSE CONSTRUCTION MATERIALS MUST BE PROTECTED TO KEEP WIND OR WATER FORCES FROM TRANSPORTING MATERIAL OFF-SITE.
- FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL OR SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS SHALL NOT BE WASHED INTO ANY DRAINAGE SYSTEM.
- WASTE CONCRETE SHALL NOT BE WASHED INTO ANY DRAINAGE SYSTEM. CONTRACTOR SHALL PROVIDE NECESSARY PROVISIONS TO RETAIN CONCRETE WASTE ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
- CONSTRUCTION RELATED WASTE AND DEBRIS SHALL BE KEPT IN A COVERED RECEPTACLE TO PREVENT CONTAMINATION OR DISPERSAL BY WIND OR RAIN.
- PROVIDE A STABILIZED CONSTRUCTION ENTRANCE AT VEHICULAR ACCESS TO SITE TO PREVENT SEDIMENT OR DEBRIS FROM BEING TRACKED INTO PUBLIC RIGHT-OF-WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND SHALL NOT BE WASHED AWAY FROM RAIN OR OTHER MEANS.
- ALL SLOPES WITH DISTURBED SOILS OR REMOVED VEGETATION SHALL BE STABILIZED TO PREVENT EROSION.

EROSION AND SEDIMENT CONTROL

- THE CONCEPTS OF THE EROSION AND SEDIMENT CONTROL PLAN ARE SCHEMATIC AND DEMONSTRATE THE INTENT OF THE CONTROL MEASURES. THE CONTRACTOR SHALL DETERMINE THE EXACT DESIGN AND EXTENT OF THE CONTROL MEASURES AS TO WORK WITH THE CONTRACTOR'S USE AND MANAGEMENT OF THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL INSPECT AND MONITOR THE EROSION AND SEDIMENT CONTROL MEASURES AND MAKE REPAIRS AS NECESSARY TO ENSURE FUNCTIONALITY.
- EROSION CONTROL MEASURES MUST BE IN PLACE THROUGHOUT THE RAINY SEASON (OCTOBER 1ST THROUGH APRIL 30TH).

SITE CONSTRUCTION FENCE

- CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION. THE FENCE SHALL BE A MINIMUM OF A 6' GALVANIZED CHAIN LINK WITH WINDSCREEN FABRIC.

UTILITY NOTES

- ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE GEOTECHNICAL REPORT.
- CONTRACTOR SHALL PREPARE AN ACCURATE COMPOSITE UTILITY PLAN THAT ACCOUNTS FOR THE ACTUAL LOCATION OF EXISTING UTILITIES DETERMINED DURING DEMOLITION.
- THE UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE NECESSARY FITTINGS AND ACCESSORIES SO THAT THE SYSTEM IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
- UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THE APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AND SURFACE EVIDENCE. THE OWNER, BY ACCEPTING THESE PLANS AGREES TO HOLD UNDERSIGNED HARMLESS FROM DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES NOT REPORTED OR INDICATED ON PUBLIC RECORDS OR NOT ASCERTAINABLE FROM SURFACE EVIDENCE.
- CONTRACTOR SHALL VERIFY ALL EXISTING STORM DRAIN AND SANITARY SEWER INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY WORK. ALL STORM DRAIN AND SANITARY SEWER WORK SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT TO ALLOW FOR NECESSARY ADJUSTMENTS TO THE ENTIRE LINE.
- A MINIMUM OF SIX INCHES VERTICAL CLEARANCE SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT WATER AND SANITARY SEWER PIPELINES SHALL BE TWELVE INCHES AND NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE EXISTING SANITARY SEWER PIPELINES.
- A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE FIVE FEET, EXCEPT WATER AND SANITARY SEWER PIPELINES SHALL BE A MINIMUM OF TEN FEET, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT APPROPRIATE UTILITY SERVICE PROVIDERS AND REQUEST VERIFICATION OF SERVICE POINTS.
- ANY EXISTING UNDERGROUND UTILITY LINES TO BE ABANDONED, SHOULD BE REMOVED FROM WITHIN THE PROPOSED BUILDING ENVELOPE AND THE ENDS CAPPED OUTSIDE THE BUILDING ENVELOPE.

FIRE PROTECTION NOTES

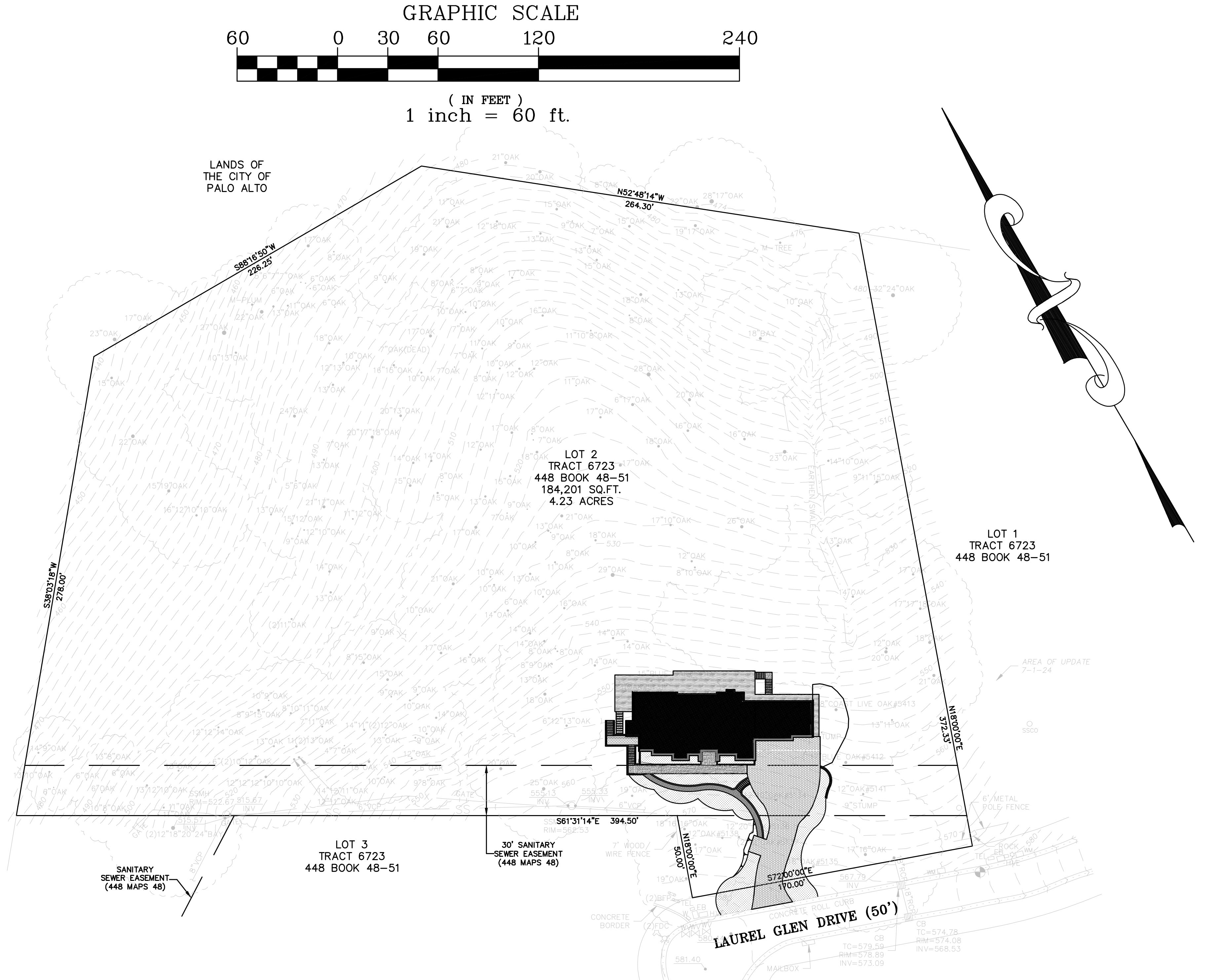
- CONTRACTOR SHALL INSTALL THE DESIGN BUILD FIRE SERVICE LINE, BACKFLOW PREVENTOR, SPRINKLERS AND EQUIPMENT IN ACCORDANCE WITH THE FIRE PROTECTION CONSULTANT'S PLANS, SPECIFICATIONS AND THE CALIFORNIA FIRE CODE AND LOCAL MUNICIPALITY STANDARDS.
- THE UNDERGROUND FIRE PROTECTION SYSTEM INSTALLER SHALL PREPARE SHOP DRAWINGS AND SUBMIT SAID DRAWINGS TO THE LOCAL FIRE MARSHALL FOR REVIEW AND APPROVAL.

ESTIMATED EARTHWORK QUANTITIES

CUT (WITHIN BUILDING ENVELOPE)	360 C.Y.
CUT (OUTSIDE BUILDING ENVELOPE)	120 C.Y.
FILL (WITHIN BUILDING ENVELOPE)	30 C.Y.
FILL (OUTSIDE BUILDING ENVELOPE)	220 C.Y.
BALANCE (EXPORT)	230 C.Y.

NOTE: EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INDEPENDENTLY ESTIMATE QUANTITIES FOR THEIR OWN USE.

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303



EXISTING

WM	WATER METER OR WATER VALVE BOX
	FIRE HYDRANT
16 12 8 OAK	TREE – TRUNK DIAMETER IN INCHES TREE SPECIES IDENTIFICATION: BEST EFFORT, WE ARE NOT ARBORISTS OR DENDROLOGISTS
16 12 8 OAK	TREE WITH MULTIPLE TRUNKS
TRUNK	TREE DRIP LINE POINTS TOWARDS TREE TRUNKS. TREE DRIP LINES ABOVE PROPERTY LOCATED AS SHOWN.
25.34 TC	TOP OF CURB
—×—×—	FENCE
—OE—	OVERHEAD WIRES
○PP	POWER POLE
+ 12.34	SPOT ELEVATION
	EDGE OF AC PAVING
GAS ——	UNDERGROUND PAINT MARKINGS PROVIDED BY OTHERS.

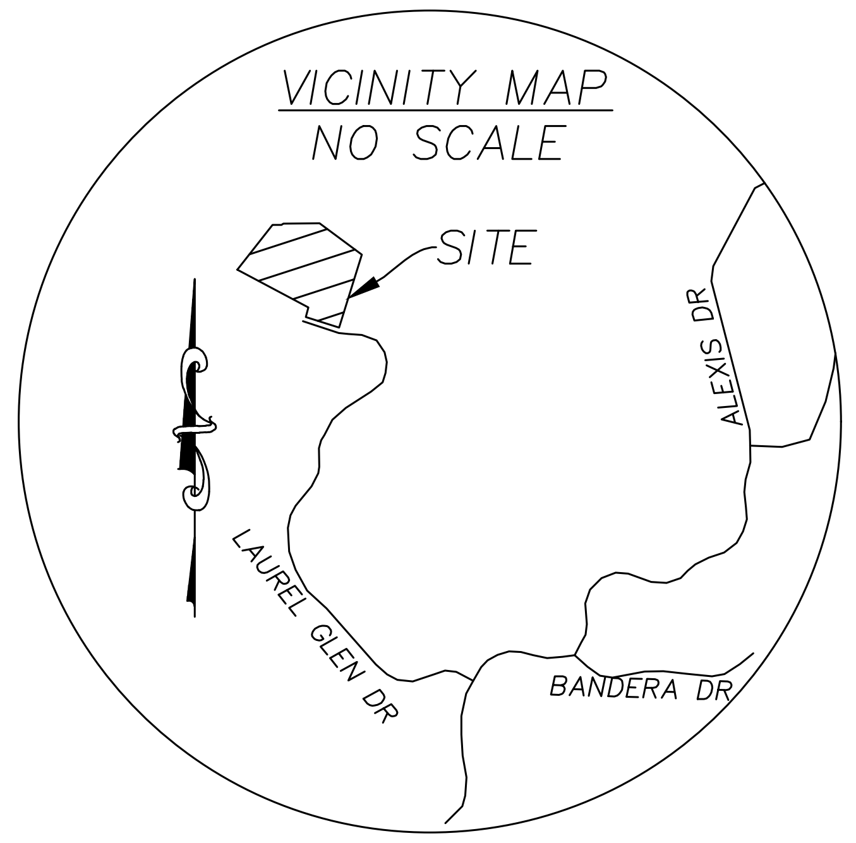
PROPOSED

— FBR —— FBR —	FIBER ROLL
— TP —— TP —	TREE PROTECTION FENCE
— SD —— SD —	6" PVC STORM DRAIN CONVEYANCE LINE
— FM —— FM —	2" PVC FORCE MAIN
— JT —— JT —	UNDERGROUND JOINT TRENCH
— SS —— SS —	SANITARY SEWER LINE
— W —— W —	WATER SERVICE
—— G —— G ——	GAS SERVICE
- - - - -GB - - - - -	GRADE BREAK
————	IMPROVEMENT OUTLINE
→	DRAINAGE COURSE
+ 25.34 FG	FINISHED GRADE SPOT ELEVATION
Ⓓ	RAINWATER DOWNSPOUT
⊜	AREA DRAIN

ABBREVIATIONS

AC	ASPHALT
CONC.	CONCRETE
COTG	CLEANOUT TO GRADE
DG	DECOMPOSED GRANITE
TC	TOP OF CURB
FL	FLOW LINE
INV	INVERT
SSMH	SANITARY SEWER MANHOLE
SSCO	SANITARY SEWER CLEAN OUT
FG	FINISHED GRADE
FS	FINISHED SURFACE
(E)	EXISTING
(N)	NEW
ELEC.	ELECTRIC
COMM.	COMMUNICATIONS
(TYP.)	TYPICAL

VICINITY MAP
NO SCALE



PROJECT DESIGN TEAM

OWNER:
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929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303

ARCHITECT:
VRCHITECTS
908 INDUSTRIAL AVE
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(844) 400-7212
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CIVIL:
L. WADE HAMMOND
36660 NEWARK BLVD. SUITE C
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(530)499-9332
WILL@WHLANDSURVEYOR.COM

SURVEY:
LEA & BRAZE ENGINEERING, INC.
2495 INDUSTRIAL PKWY WEST
HAYWARD, CA 94545
(510) 887-4086
WWW.LEABRAZE.COM

811
Know what's below.
Call before you dig.

SHEET INDEX

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L. Wade Hammond
Civil Engineering & Land Surveying
36660 Newark Blvd. Suite C
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Tel:(510)579-6112 wade@whlandsurveyor.com

SCALE 1" = 60'
DATE 12-7-2024
JOB# 5573
APN 182-54-013

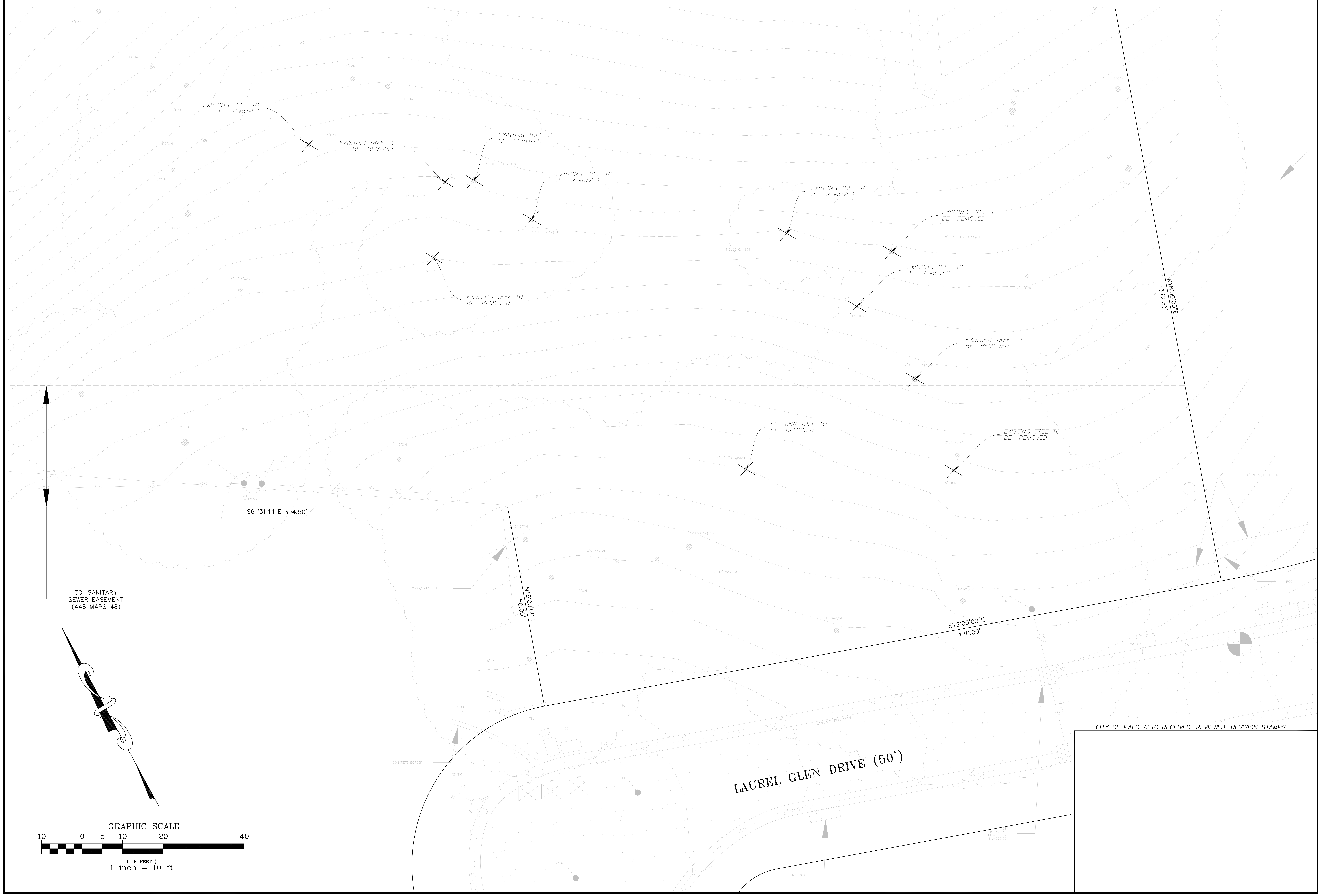
NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

LICENSED PROFESSIONAL ENGINEER
WILLIAM JAY HAMMOND
C 89275
William Jay Hammond
CIVIL
STATE OF CALIFORNIA

#	REVISIONS	DATE

SHEET NUMBER
C-1
1 OF 12

DEMOLITION PLAN



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L. Wade Hammond
Civil Engineering & Land Surveying
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Tel:(510)579-6112 wade@whlandsurveyor.com

SCALE 1" = 10'
DATE 12-7-2024
JOB# 5573
APN 182-54-013

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275

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SHEET NUMBER
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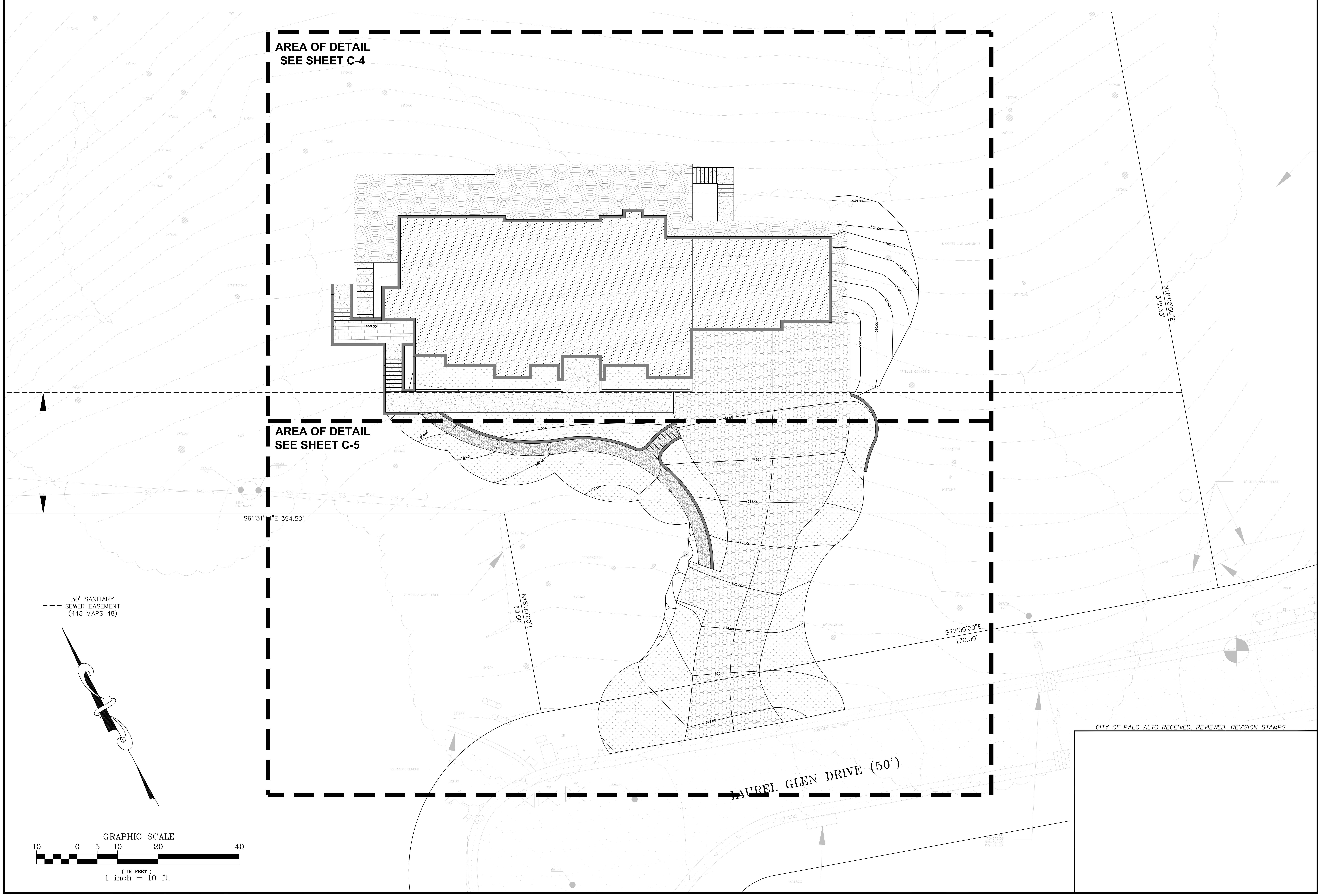
OVERALL SITE PLAN



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JOB#	5573
APN	182-54-013

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LICENSED PROFESSIONAL ENGINEER
WILLIAM JAY HAMMOND
C 89275
William Jay Hammond
CIVIL
STATE OF CALIFORNIA

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SHEET NUMBER

C-3

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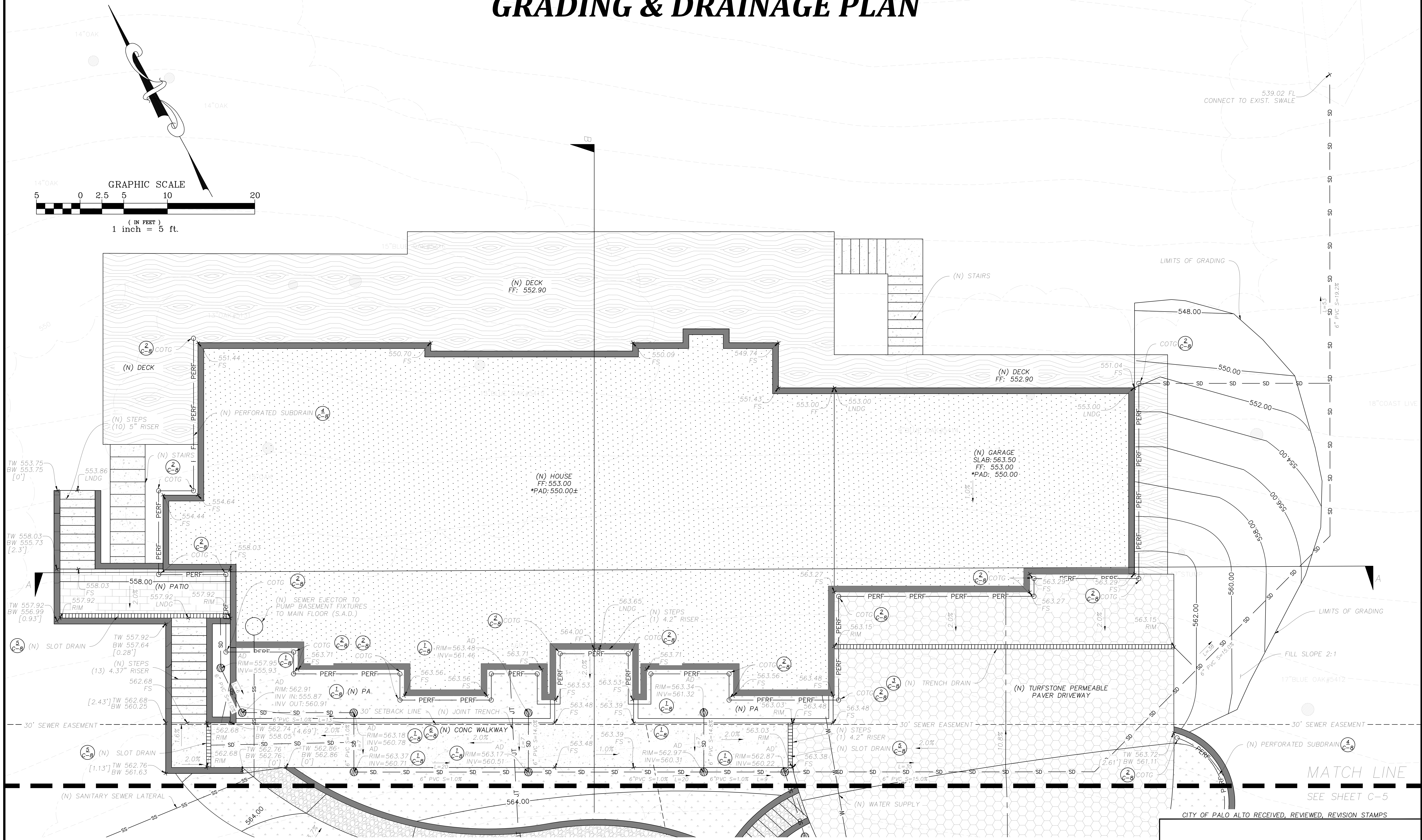
GRADING & DRAINAGE PLAN



CITY OF PALO ALTO RECEIVED, REVIEWED, REVISION STAMPS

GRADING NOTES:

1. CLEARANCE BETWEEN WOOD SIDING AND EARTH ON THE EXTERIOR OF A BUILDING SHALL NOT BE LESS THAN 6 INCHES OR LESS THAN 2 INCHES VERTICAL FROM CONCRETE STEPS, PORCH SLABS, PATIO SLABS AND SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER EXCEPT WHERE SIDING, SHEATHING AND WALL FRAMING ARE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD. [C.B.C. 2304.12.1.5]
2. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER APPROVED POINT OF COLLECTION THAT DOES NOT ALLOW WATER TO POND. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET (5%); OR WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6 INCHES OF FALL WITHIN 10 FEET (5%), DRAINS OR SWALES SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE. [C.B.C. 1804A.4]
3. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF (2%) AWAY FROM THE BUILDING. [C.B.C. 1804A.4]
4. IMPORT SOILS SHALL MEET THE REQUIREMENTS OF THE SOILS REPORT. ALL FILL SHALL BE COMPACTED PER THE SOILS REPORT AND THE CONTRACTOR SHALL COORDINATE WITH THE GEOTECHNICAL ENGINEER TO VERIFY COMPACTION VALUES.

NOTE: UNDER NO CIRCUMSTANCE SHALL DRAINAGE RESULTING FROM THIS PROJECT, DURING OR POST CONSTRUCTION, DIRECTLY SHEETFLOW ACROSS AN ADJOINING PROPERTY. RUNOFF SHALL BE CONTAINED ON-SITE UP TO THE 10-YEAR STORM.

*BUILDING PAD: ADJUST BUILDING PAD ELEVATION AS REQUIRED PER STRUCTURAL/ARCHITECTURAL PLANS.

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SCALE	1" = 5'
DATE	12-7-2024
JOB#	5573
APN	182-54-013

NEW SINGLE-FAMILY HOUSE
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PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

C 89275
WILLIAM JAY HAMMOND
William Jay Hammond

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C-4
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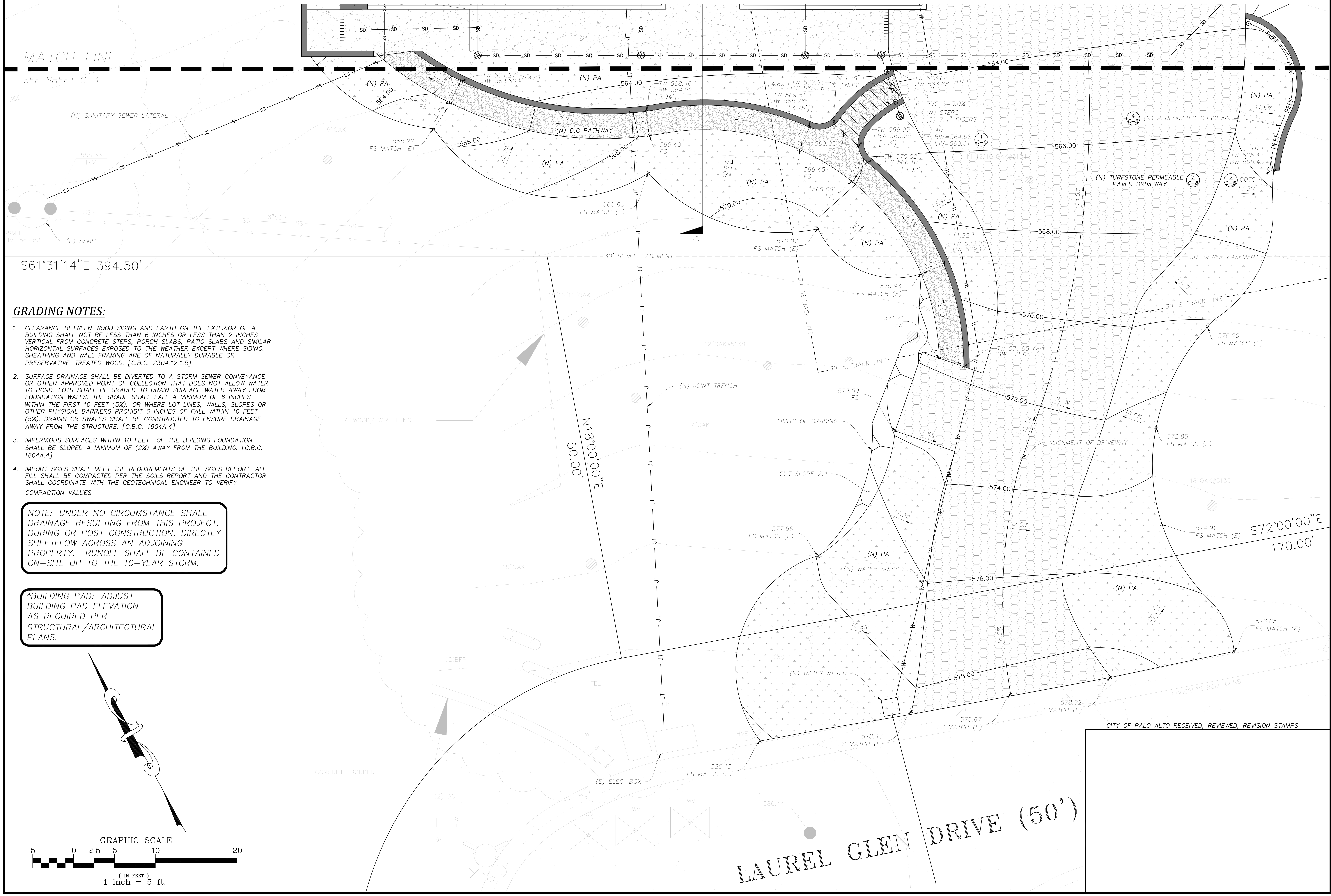
NOTES

GRADING & DRAINAGE PLAN



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GRAPHIC SCALE
5 0 2.5 5 10 20
(IN FEET)
1 inch = 5 ft.

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NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275
William Jay Hammond

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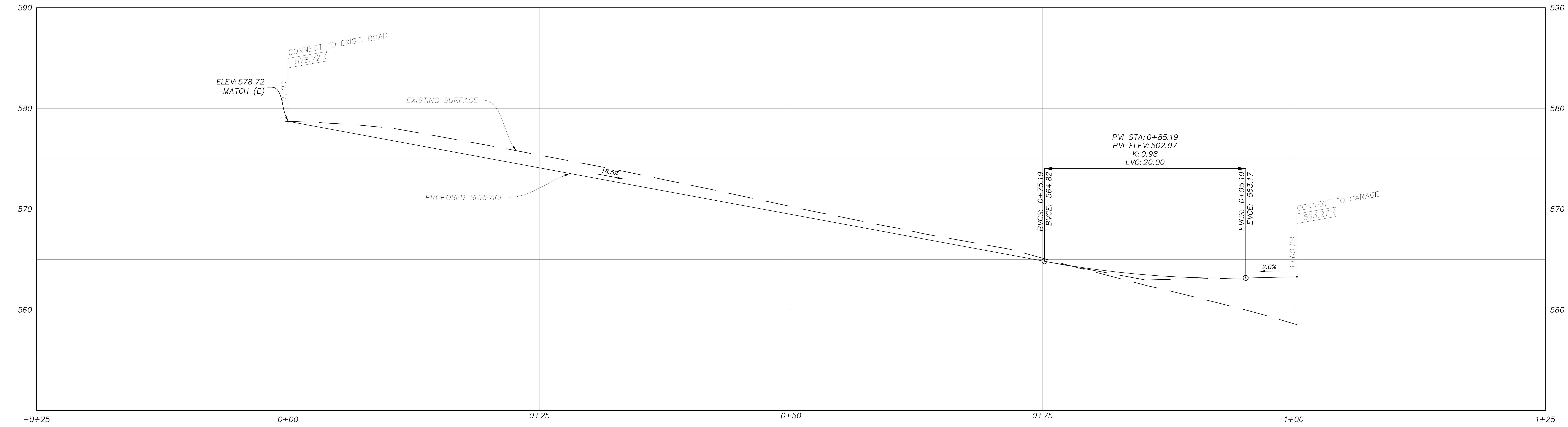
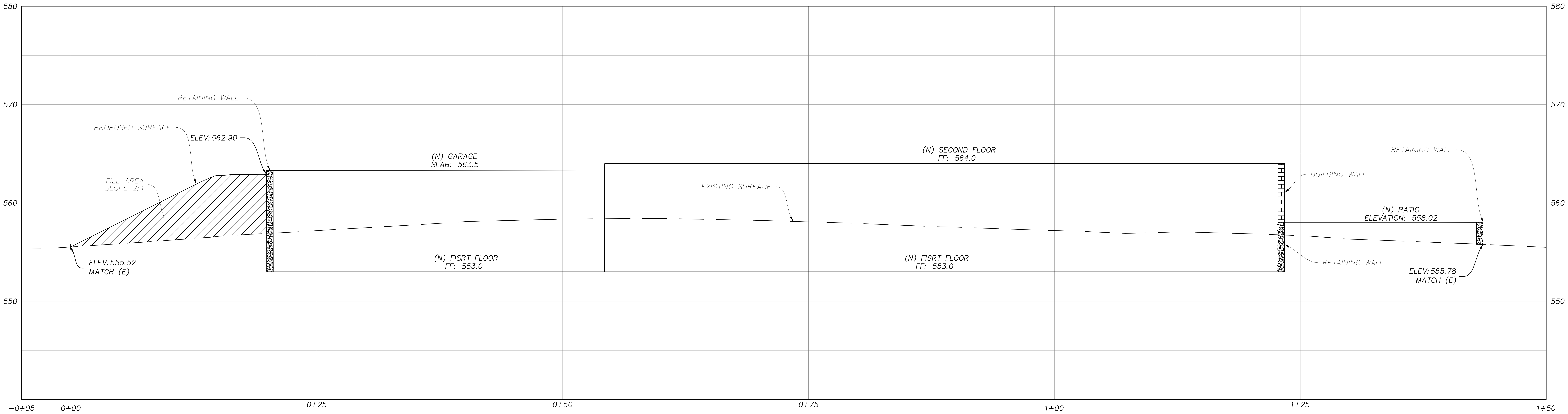
SECTIONS



PROFILE DRIVEWAY
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'



SECTION A-A
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

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NEW SINGLE-FAMILY HOUSE
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PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275

William Jay Hammond

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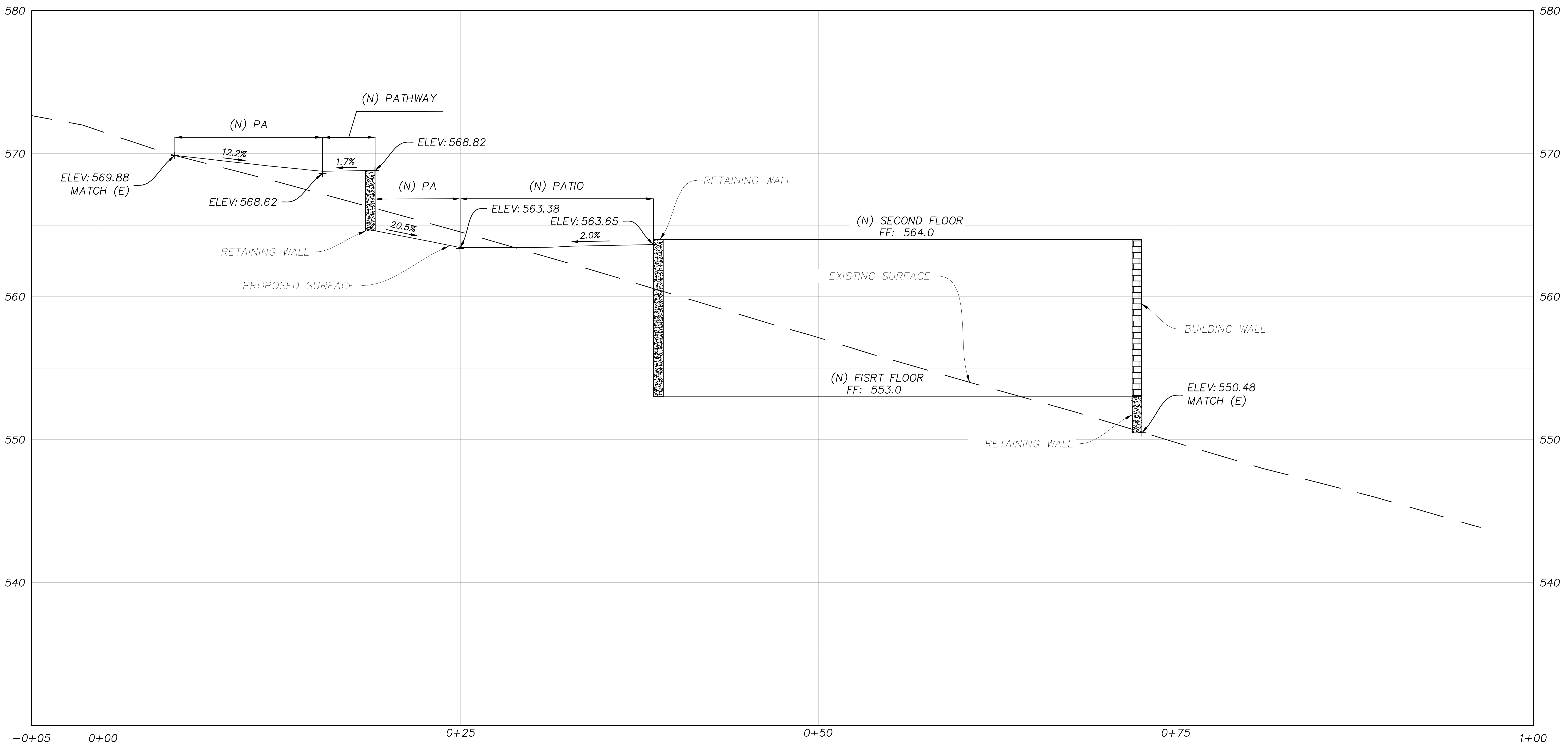
SECTIONS



SECTION B-B
HORIZONTAL SCALE: 1"=5'
VERTICAL SCALE: 1"=5'

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CITY OF PALO ALTO SANTA CLARA COUNTY

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C 89275
William Jay Hammond

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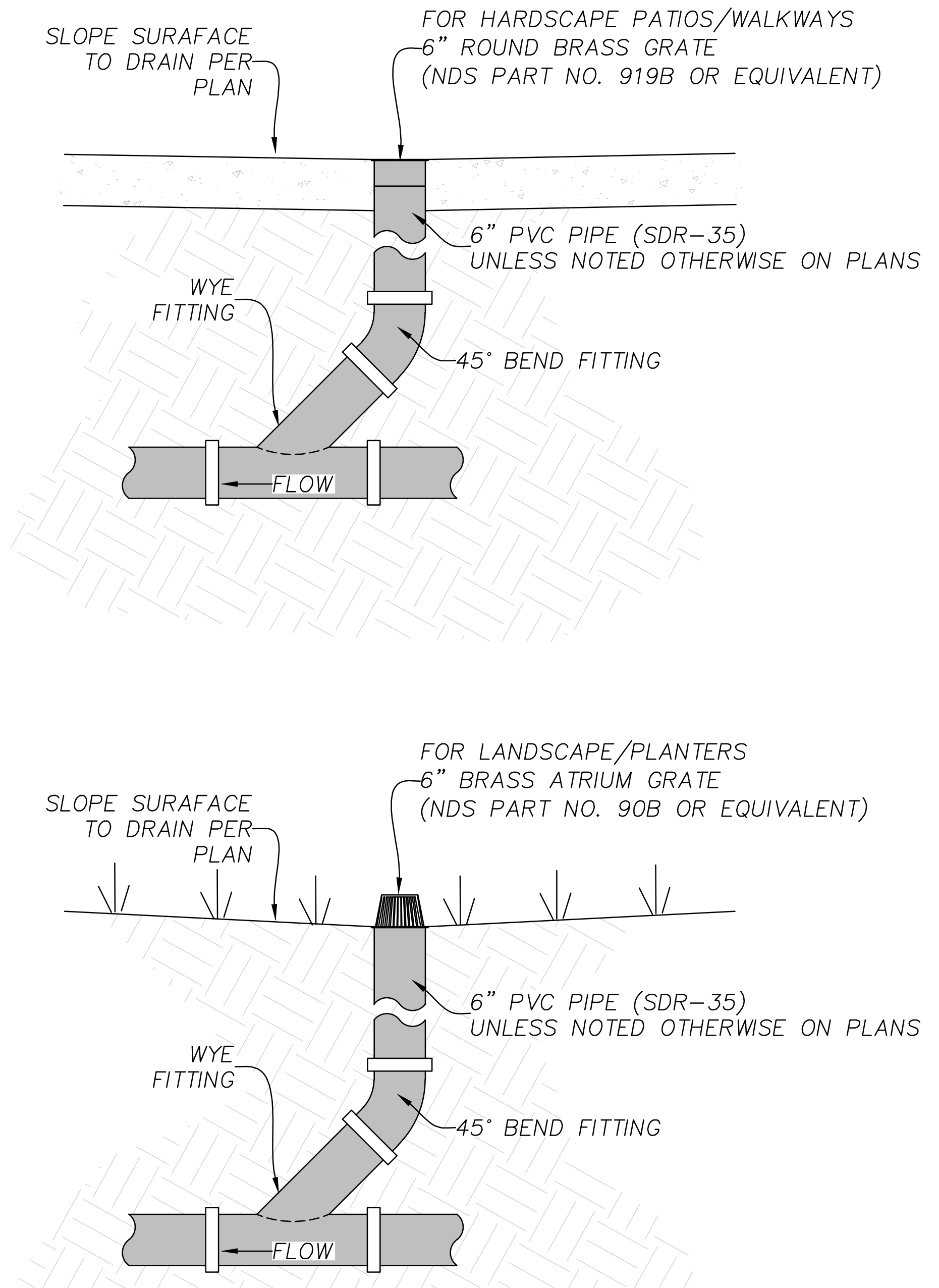
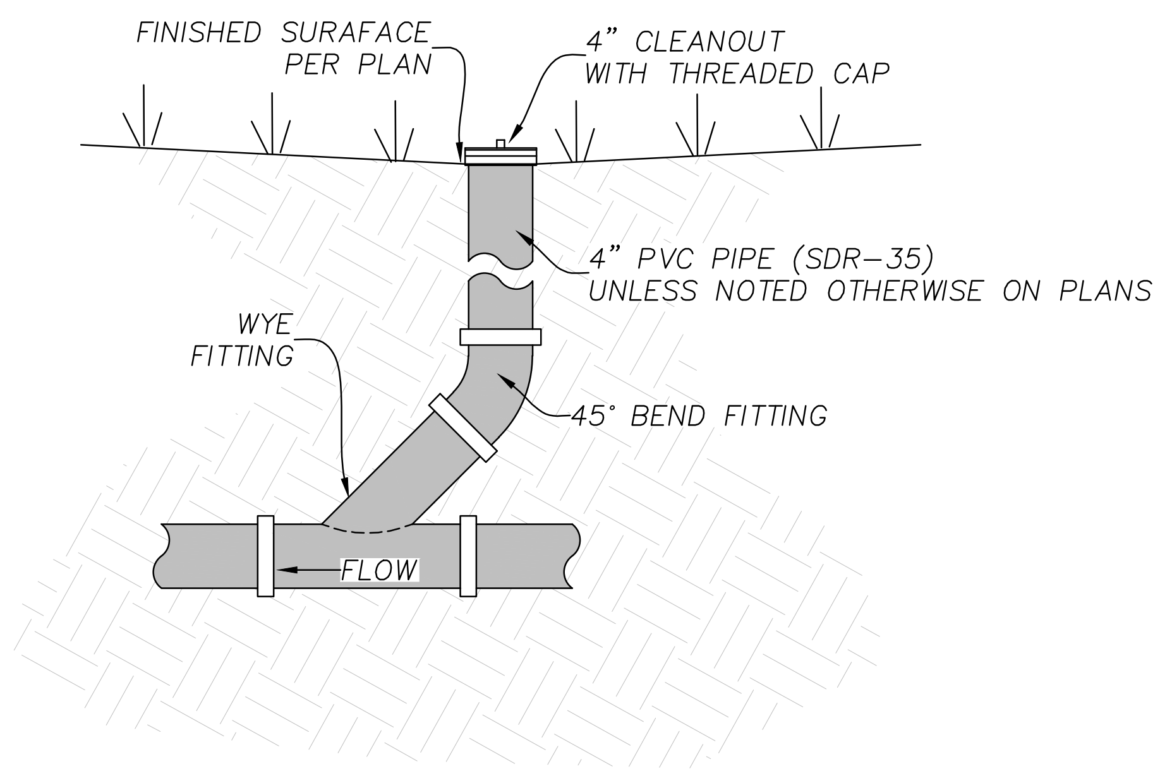
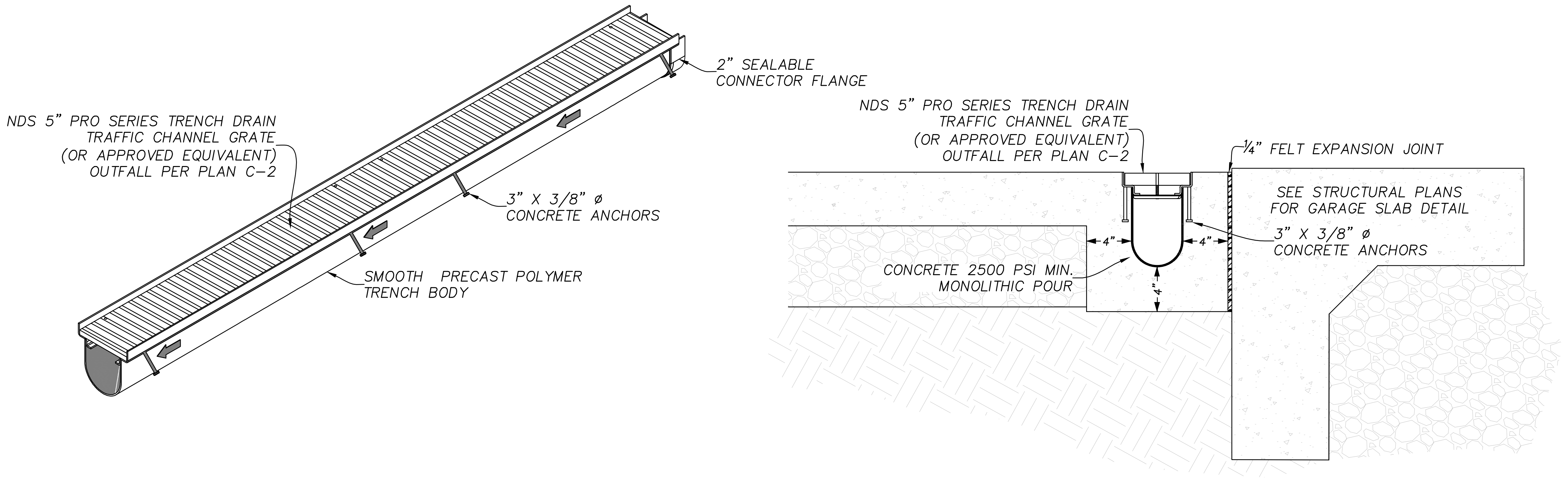
DETAILS



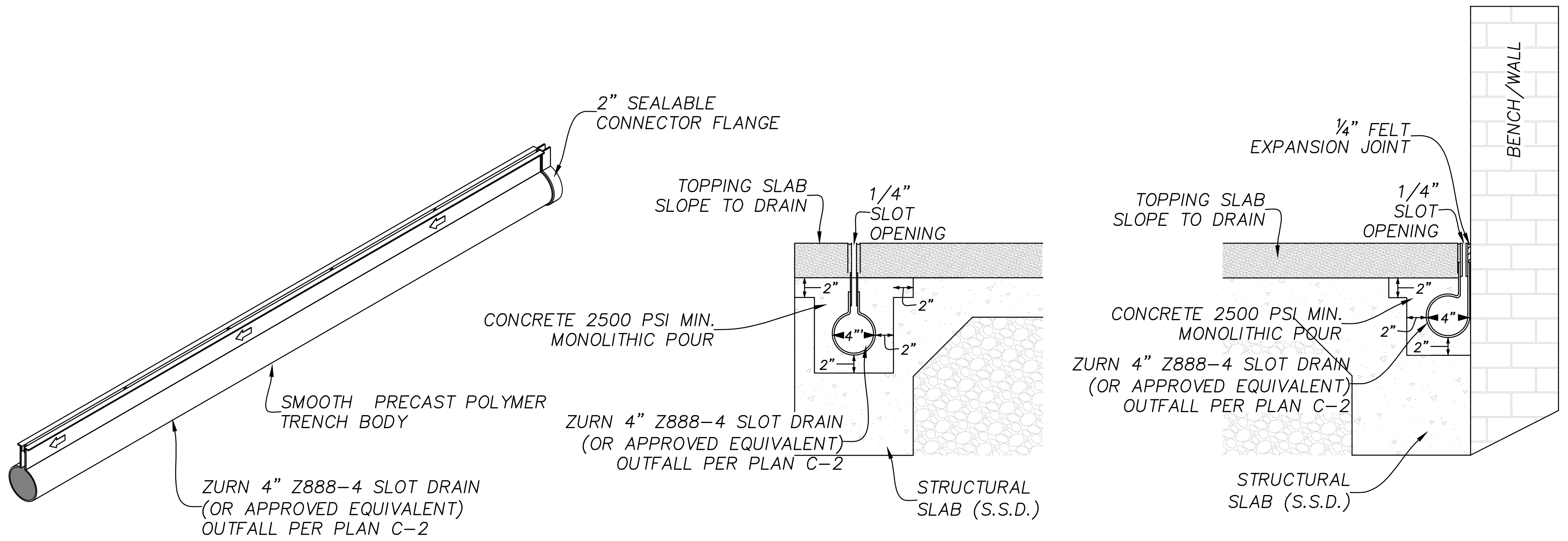
① AREA DRAIN
NOT TO SCALE



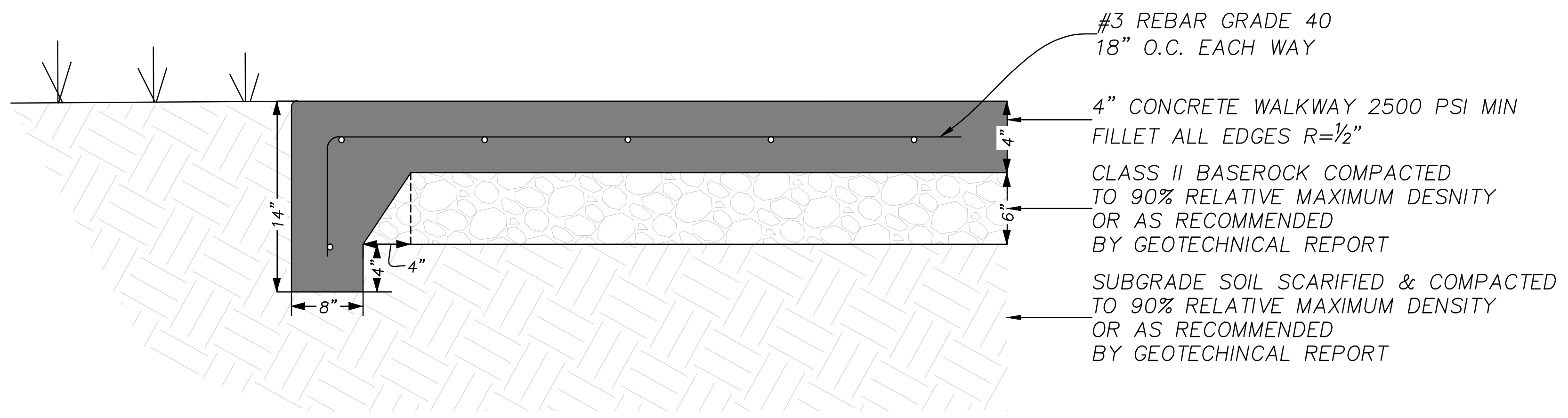
② CLEANOUT TO GRADE
NOT TO SCALE



③ TRENCH DRAIN
NOT TO SCALE



⑤ SLOT DRAIN
NOT TO SCALE

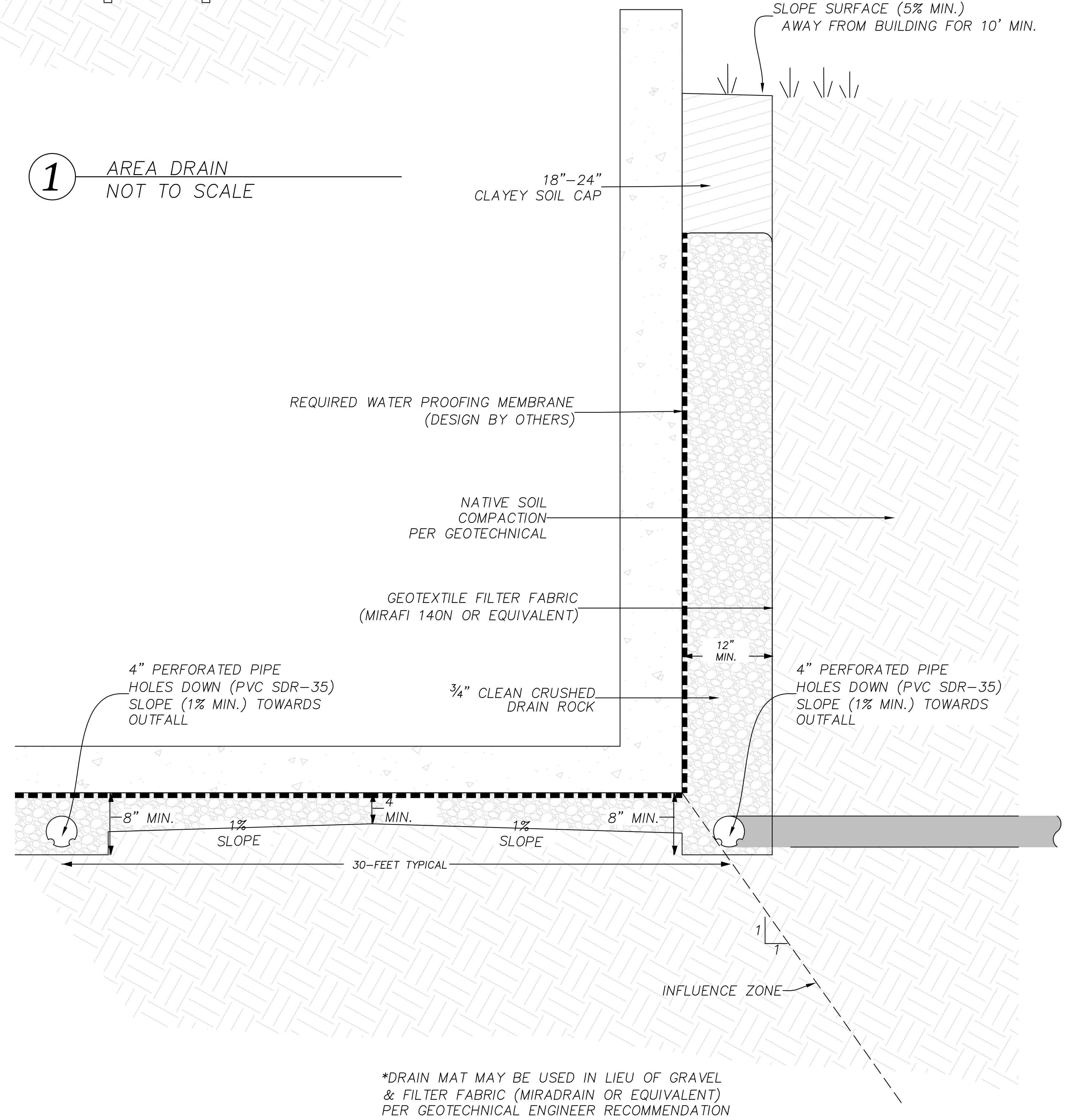


PROVIDE:
CONTRACTION JOINTS
AT 10' INTERVALS, 1.5" DEEP

EXPANSION JOINTS ⅜" HOLD FELT DOWN ½" AND SEAL
SPACED AT 20' SECTIONS MIN

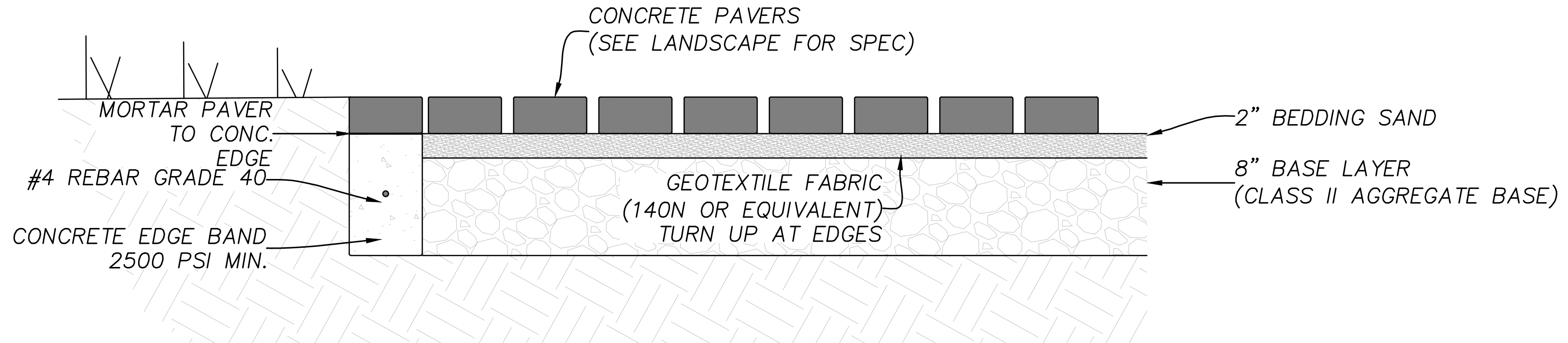
SMOOTH SLIP DOWELS ½" DIAM. 24" LONG
AT 18" O.C. GREASE ONE END

⑥ CONCRETE WALKWAY
NOT TO SCALE



*DRAIN MAT MAY BE USED IN LIEU OF GRAVEL
& FILTER FABRIC (MIRADRAIN OR EQUIVALENT)
PER GEOTECHNICAL ENGINEER RECOMMENDATION

④ PERFORATED SUBDRAIN
NOT TO SCALE



⑦ PERMEABLE PAVER
NOT TO SCALE

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Tel:(510)579-6112 wade@whlandsurveyor.com

SCALE	N.T.S
DATE	12-7-2024
JOB#	5573
APN	182-54-013

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

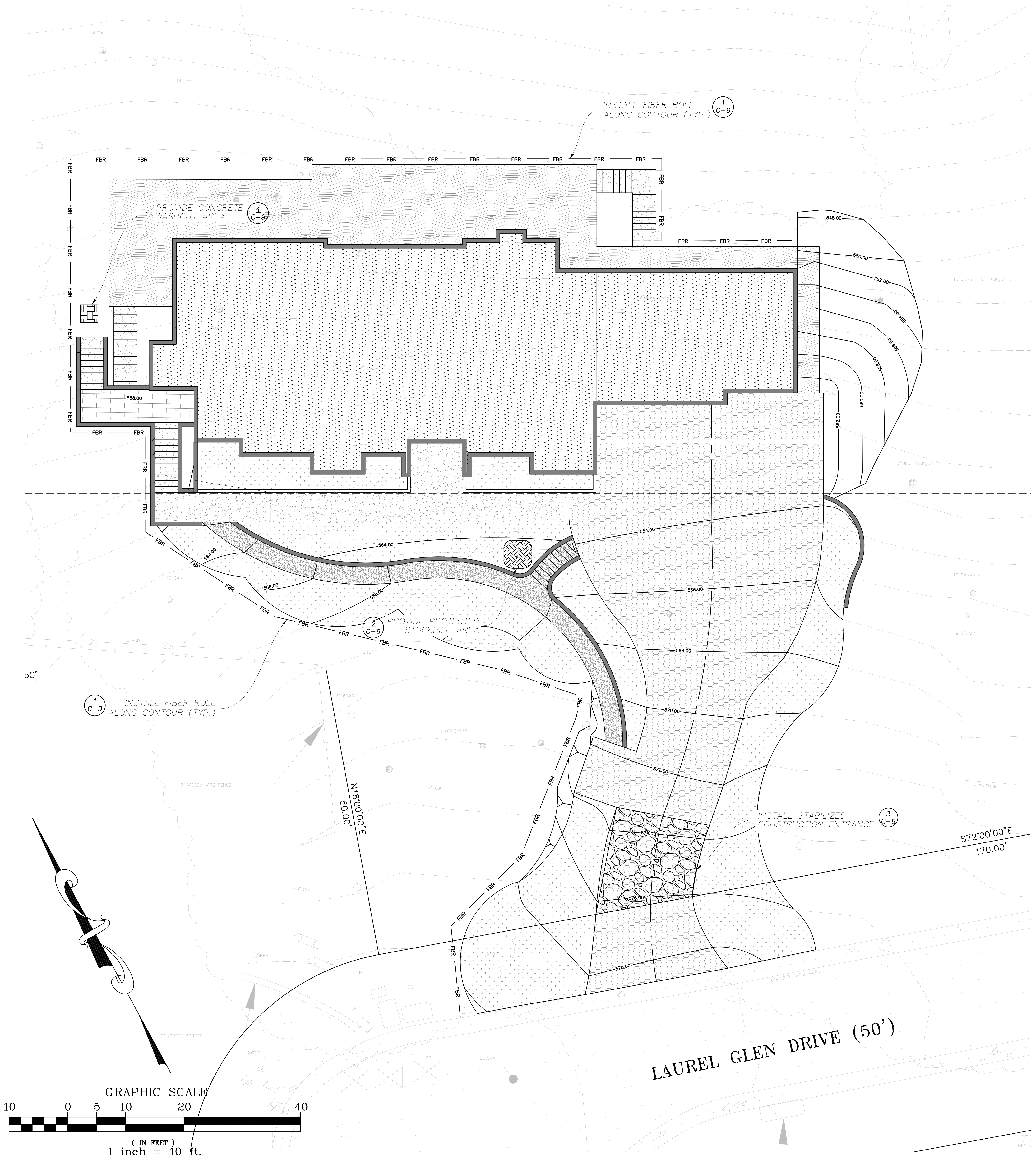
WILLIAM JAY HAMMOND
C 89275
William Jay Hammond

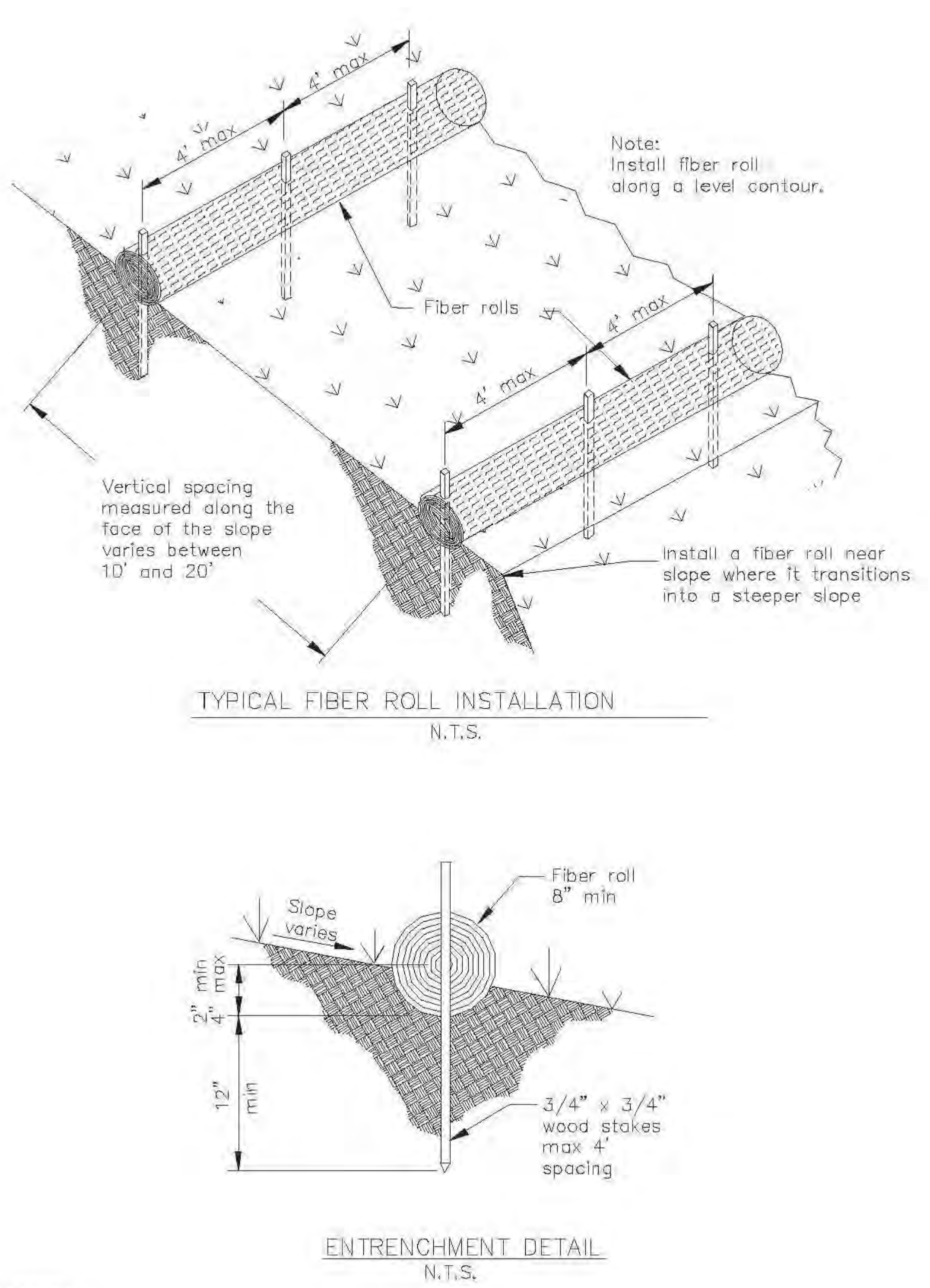
#	REVISIONS	DATE

SHEET NUMBER
C-8
8 OF 12

NOTES

EROSION CONTROL PLAN



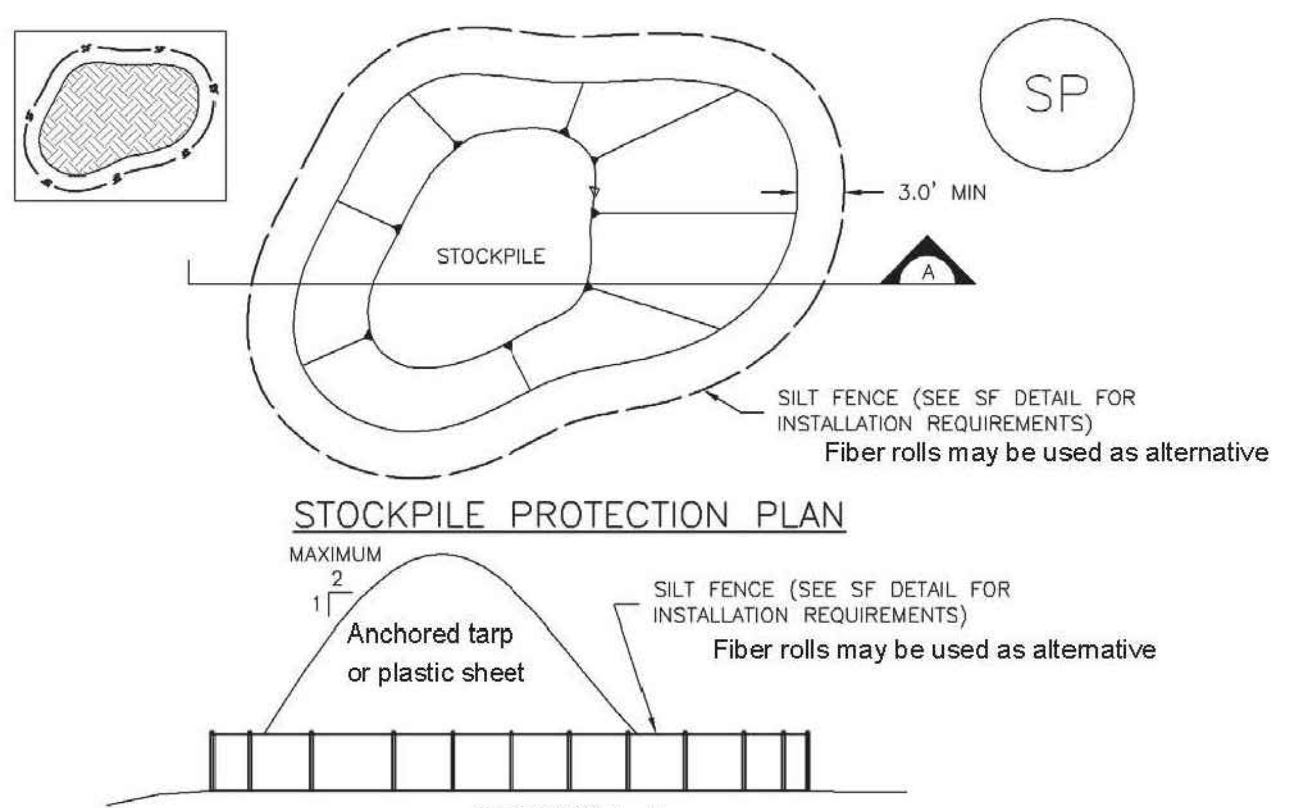


TYPICAL FIBER ROLL INSTALLATION
N.T.S.

ENTRENCHMENT DETAIL
N.T.S.

NOTES:
If more than one fiber roll is placed in a row, the rolls must be overlapped, not abutted.
Turn the ends of the fiber roll up-slope to prevent runoff from going around the roll.

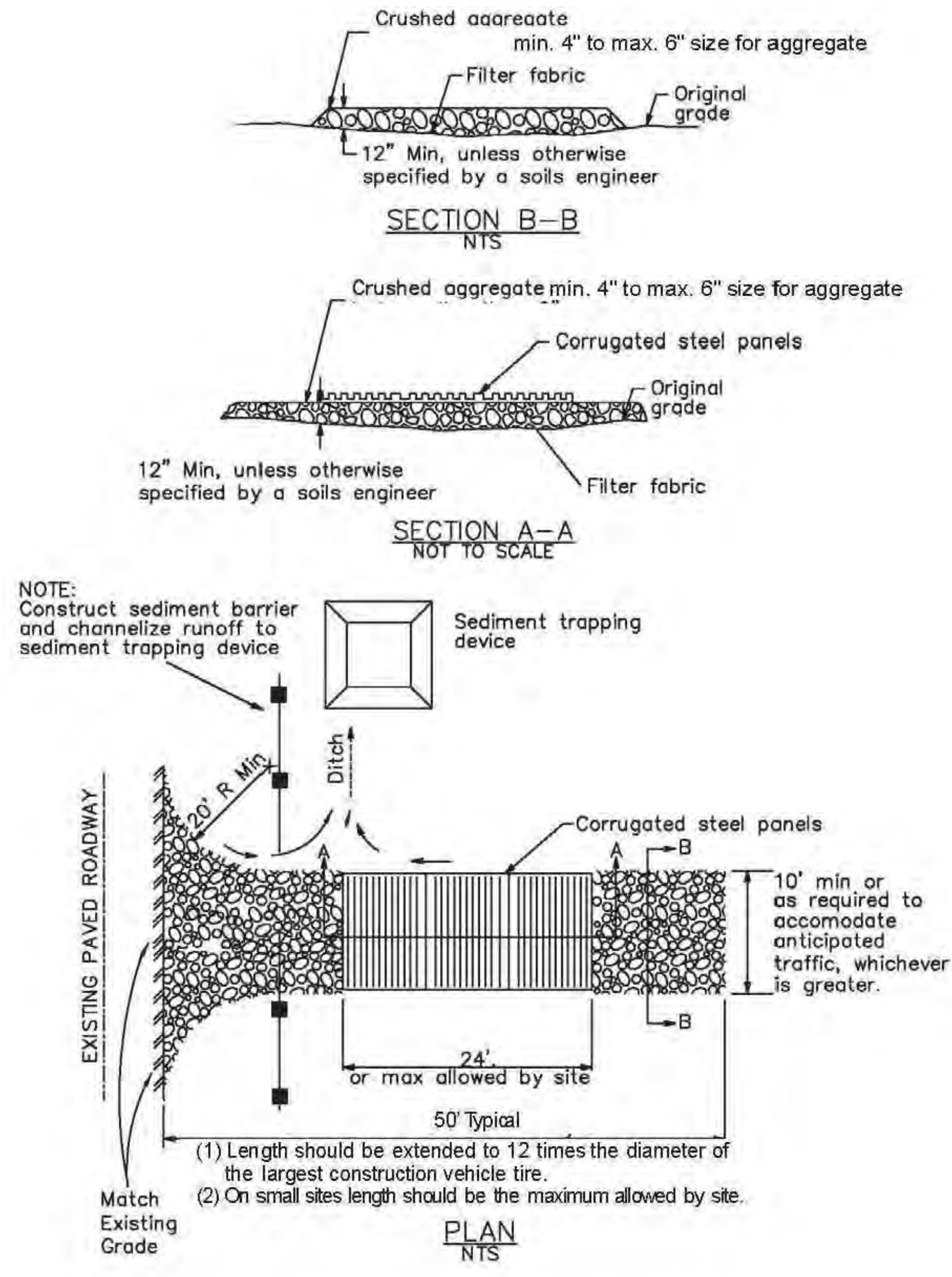
① FIBER ROLL
NOT TO SCALE



STOCKPILE PROTECTION PLAN

SECTION A

② STOCKPILE PROTECTION
NOT TO SCALE



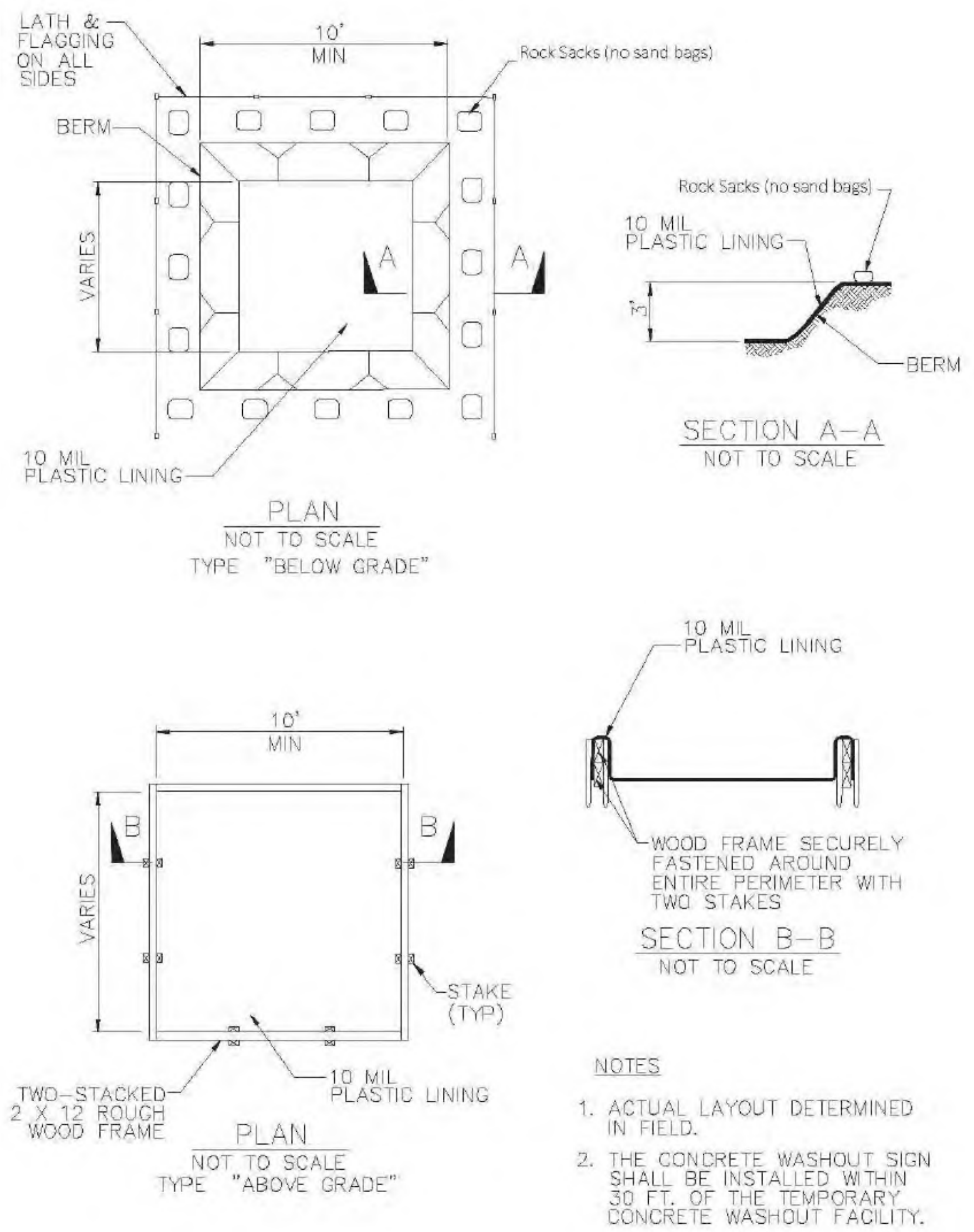
SECTION B–B
NTS

SECTION A–A
NOT TO SCALE

(1) Length should be extended to 12 times the diameter of the largest construction vehicle tire.
(2) On small sites length should be the maximum allowed by site.

PLAN
NTS

③ CONSTRUCTION ENTRANCE
NOT TO SCALE



PLAN
NOT TO SCALE
TYPE "BELOW GRADE"

SECTION A–A
NOT TO SCALE

PLAN
NOT TO SCALE
TYPE "ABOVE GRADE"

SECTION B–B
NOT TO SCALE

NOTES
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

④ CONCRETE WASHOUT
NOT TO SCALE

CITY OF PALO ALTO RECEIVED, REVIEWED, REVISION STAMPS

L. Wade Hammond
Civil Engineering & Land Surveying
36660 Newark Blvd. Suite C
Newark, California 94560
Tel:(510)579-6112 wade@whlandsurveyor.com

SCALE	1" = 10'
DATE	12-7-2024
JOB#	5573
APN	182-54-013

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303

CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275

#	REVISIONS	DATE

SHEET NUMBER
C-9
9 OF 12

POLLUTION PREVENTION — IT'S PART OF THE PLAN

Construction projects are required to implement year-round stormwater BMPs, as they apply to your project.

Runoff from streets and other paved areas is a major source of pollution to San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep construction dirt, debris, and other pollutants out of storm drains and local creeks. Following these guidelines will ensure your compliance with City of Palo Alto Ordinance requirements.

MATERIALS & WASTE MANAGEMENT

Non-Hazardous Materials

- ☐ Berm and cover stockpiles of sand, dirt or other construction material with tarps when rain is forecast or when they are not in use.
- ☐ Use (but don't overuse) reclaimed water for dust control.
- ☐ Ensure dust control water doesn't leave site or discharge to storm drains.

Hazardous Materials

- ☐ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, county, state and federal regulations.
- ☐ Store hazardous materials and wastes in water tight containers, store in appropriate secondary containment, and cover them at the end of every work day or during wet weather or when rain is forecast.
- ☐ Follow manufacturer's application instructions for hazardous materials and do not use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ☐ Arrange for appropriate disposal of all hazardous wastes.

Waste Management

- ☐ Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. A plastic liner is recommended to prevent leaks. Never clean out a dumpster by hosing it down on the construction site.
- ☐ Place portable toilets away from storm drains. Make sure they are in good working order. Check frequently for leaks.
- ☐ Dispose of all wastes and demolition debris properly. Recycle materials and wastes that can be recycled, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation.
- ☐ Dispose of liquid residues from paints, thinners, solvents, glues, and cleaning fluids as hazardous waste.
- ☐ Keep site clear of litter (e.g. lunch items, cigarette butts).
- ☐ Prevent litter from uncovered loads by covering loads that are being transported to and from site.

Construction Entrances and Perimeter

- ☐ Establish and maintain effective perimeter controls and stabilize all construction entrances and exits to sufficiently control erosion and sediment discharges from site and tracking off site.
- ☐ Sweep or vacuum any street tracking immediately and secure sediment source to prevent further tracking. Never hose down streets to clean up tracking.

EQUIPMENT MANAGEMENT & SPILL CONTROL

Maintenance and Parking

- ☐ Designate an area of the construction site, well away from streams or storm drain inlets and fitted with appropriate BMPs, for auto and equipment parking, and storage.
- ☐ Perform major maintenance, repair jobs, and vehicle and equipment washing off site.
- ☐ If refueling or vehicle maintenance must be done onsite, work in a bermed area away from storm drains and over a drip pan or drop cloths big enough to collect fluids. Recycle or dispose of fluids as hazardous waste.
- ☐ If vehicle or equipment cleaning must be done onsite, clean with water only in a bermed area that will not allow rinse water to run into gutters, streets, storm drains, or surface waters.
- ☐ Do not clean vehicle or equipment onsite using soaps, solvents, degreasers, or steam cleaning equipment, and do not use diesel oil to lubricate equipment or parts onsite.

Spill Prevention and Control

- ☐ Keep spill cleanup materials (e.g., rags, absorbents and cat litter) available at the construction site at all times.
- ☐ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks. Use drip pans to catch leaks until repairs are made.
- ☐ Clean up leaks, drips and other spills immediately and dispose of cleanup materials properly.
- ☐ Use dry cleanup methods whenever possible (absorbent materials, cat litter and/or rags).
- ☐ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ☐ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ☐ Report any hazardous materials spills immediately! Call City of Palo Alto Communications, (650) 329-2413. If the spill poses a significant hazard to human health and safety, property or the environment, you must report it to the State Office of Emergency Services. (800) 852-7550 (24 hours).

EARTHMOVING

Grading and Earthwork

- ☐ Schedule grading and excavation work during dry weather.
- ☐ Stabilize all denuded areas, install and maintain temporary erosion controls (such as erosion control fabric or bonded fiber matrix) until vegetation is established.
- ☐ Remove existing vegetation only when absolutely necessary, plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- ☐ Prevent sediment from migrating offsite and protect storm drain inlets, drainage courses and streams by installing and maintaining appropriate BMPs (e.g., silt fences, gravel bags, fiber rolls, temporary swales, etc.).
- ☐ Keep excavated soil on site and transfer it to dump trucks on site, not in the streets.

Contaminated Soils

- ☐ If any of the following conditions are observed, test for contamination and contact the Regional Water Quality Control Board:
  - Unusual soil conditions, discoloration, or odor.
  - Abandoned underground tanks.
  - Abandoned wells.
  - Buried barrels, debris, or trash.
- ☐ If the above conditions are observed, document any signs of potential contamination and clearly mark them so they are not disturbed by construction activities.

Landscaping

- ☐ Protect stockpiled landscaping materials from wind and rain by storing them under tarps all year-round.
- ☐ Stack bagged material on pallets and under cover.
- ☐ Discontinue application of any erodible landscape material within 2 days before a forecast rain event or during wet weather.

CONCRETE MANAGEMENT & DEWATERING

Concrete Management

- ☐ Store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Store materials off the ground, on pallets. Protect dry materials from wind.
- ☐ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) block any storm drain inlets and vacuum washwater from the gutter. If possible, sweep first.
- ☐ Wash out concrete equipment/trucks offsite or in a designated washout area, where the water will flow into a temporary waste pit, and make sure wash water does not leach into the underlying soil. (See CASQA Construction BMP Handbook for properly designed concrete washouts.)

Dewatering

- ☐ Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.
- ☐ Be sure to obtain a Permit for Construction in the Public Street from Public Works Engineering before discharging water to a street, gutter, or storm drain. Call the Regional Water Quality Control Plant (RWQCP) at (650) 329-2598 for an inspection prior to commencing discharge. Use filtration or diversion through a basin, tank, or sediment trap as required by the approved dewatering plan. Dewatering is not permitted from October to April.
- ☐ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the City inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

PAVING/ASPHALT WORK

Paving

- ☐ Avoid paving and seal coating in wet weather or when rain is forecast, to prevent materials that have not cured from contacting stormwater runoff.
- ☐ Cover storm drain inlets and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ☐ Collect and recycle or appropriately dispose of excess abrasive gravel or sand. Do NOT sweep or wash it into gutters.

Sawcutting & Asphalt/Concrete Removal

- ☐ Protect storm drain inlets during saw cutting.
- ☐ If saw cut slurry enters a catch basin, clean it up immediately.
- ☐ Shovel or vacuum saw cut slurry deposits and remove from the site. When making saw cuts, use as little water as possible. Sweep up, and properly dispose of all residues.

PAINTING & PAINT REMOVAL

Painting Cleanup and Removal

- ☐ Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- ☐ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain.
- ☐ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids as hazardous waste.
- ☐ Sweep up or collect paint chips and dust from non-hazardous dry stripping and sand blasting into plastic drop cloths and dispose of as trash.
- ☐ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury, or tributyltin must be disposed of as hazardous waste. Lead based paint removal requires a state certified contractor.

STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO $10,000 PER DAY!

250 Hamilton Avenue
Palo Alto, CA 94301
650.329.2211
cityofpaloalto.org

CITY OF
PALO
ALTO

CITY OF PALO ALTO RECEIVED, REVIEWED, REVISION STAMPS

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SCALE	N.T.S
DATE	12-7-2024
JOB#	5573
APN	182-54-013

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275

William Jay Hammond

#	REVISIONS	DATE

SHEET NUMBER

C-10

10 OF 12

PUBLIC WORKS ENGINEERING SERVICES STANDARD CONDITIONS

Construction projects are required to adhere to the following conditions as part of Building Permit approval and issuance. Following these guidelines will ensure your compliance with Public Works requirements.

The contractor may be required to submit a logistics plan to the Public Works Department prior to commencing work that addresses all impacts to the City's right-of-way, including, but not limited to: pedestrian control, traffic control, truck routes, material deliveries, contractor's parking, concrete pours, crane lifts, work hours, noise control, dust control, storm water pollution prevention, contractor's contact, noticing of affected surrounding properties, and schedule of work. The requirement to submit a logistics plan will be dependent on the number of applications Public Works Engineering receives within close proximity to help mitigate and control the impact to the public-right-of-way. If necessary, Public Works may require a Logistics Plan during construction.

Work in the right-of-way: Any work that is proposed in the public right-of-way, such as sidewalk replacement, driveway approach, or utility laterals must be done per City standards and the contractor performing this work must first obtain a Street Work Permit from Public Works at the Development Center. If a new driveway is in a different location than the existing driveway, then the sidewalk associated with the new driveway must be replaced with a thickened (6" thick instead of the standard 4" thick) section.

Additionally, curb cuts and driveway approaches for abandoned driveways must be replaced with new curb, gutter and planter strip.

As needed

Sidewalk, curb & gutter: The applicant shall replace portions of the existing sidewalks, curbs, gutters or driveway approaches in the public right-of-way along the frontage(s) of the property as required. Contact Public Works' Inspector at (650) 496-6929 to arrange a site visit so that the inspector can discuss the extent of replacement work along the public road. Include a scan copy of the Site Inspection Directive obtained from the Public Works Inspector in the plan set.

Any construction within the city's public road right-of-way shall have an approved Permit for Construction in the Public Street prior to commencement of this work. The performance of this work is not authorized by the building permit issuance but shown on the building permit for information only.

Site Inspection Directive Sheet

Contractor shall not stage, store, or stockpile any material or equipment within the public road right-of-way. This includes job site trailers, dumpsters, storage containers and portable restrooms.

Construction phasing shall be coordinated to keep materials and equipment onsite.

Contractor shall contact Public Works Engineering Inspectors to inspect and approve the storm drain system (pipes, area drains, inlets, bubblers, dry wells, etc.) associated with the project prior to backfill.

Contractor shall schedule an inspection, at a minimum 48-hours in advance by calling (650)496-6929.

Excavation activities associated with the proposed scope of work shall occur no closer than 10-feet from the existing street tree, or as approved by the Urban Forestry Division contact 650-496-5953.

Any changes shall be approved by the same.

QUESTIONS?

☎ 650.329.2496, Option 8

✉ pwecips@cityofpaloalto.org

Public Works—Engineering Services
295 Hamilton Avenue, 1st Floor
Palo Alto, CA 94301

CITY OF PALO ALTO

CITY OF PALO ALTO RECEIVED, REVIEWED, REVISION STAMPS

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SCALE	N.T.S
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JOB#	5573
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NEW SINGLE-FAMILY HOUSE
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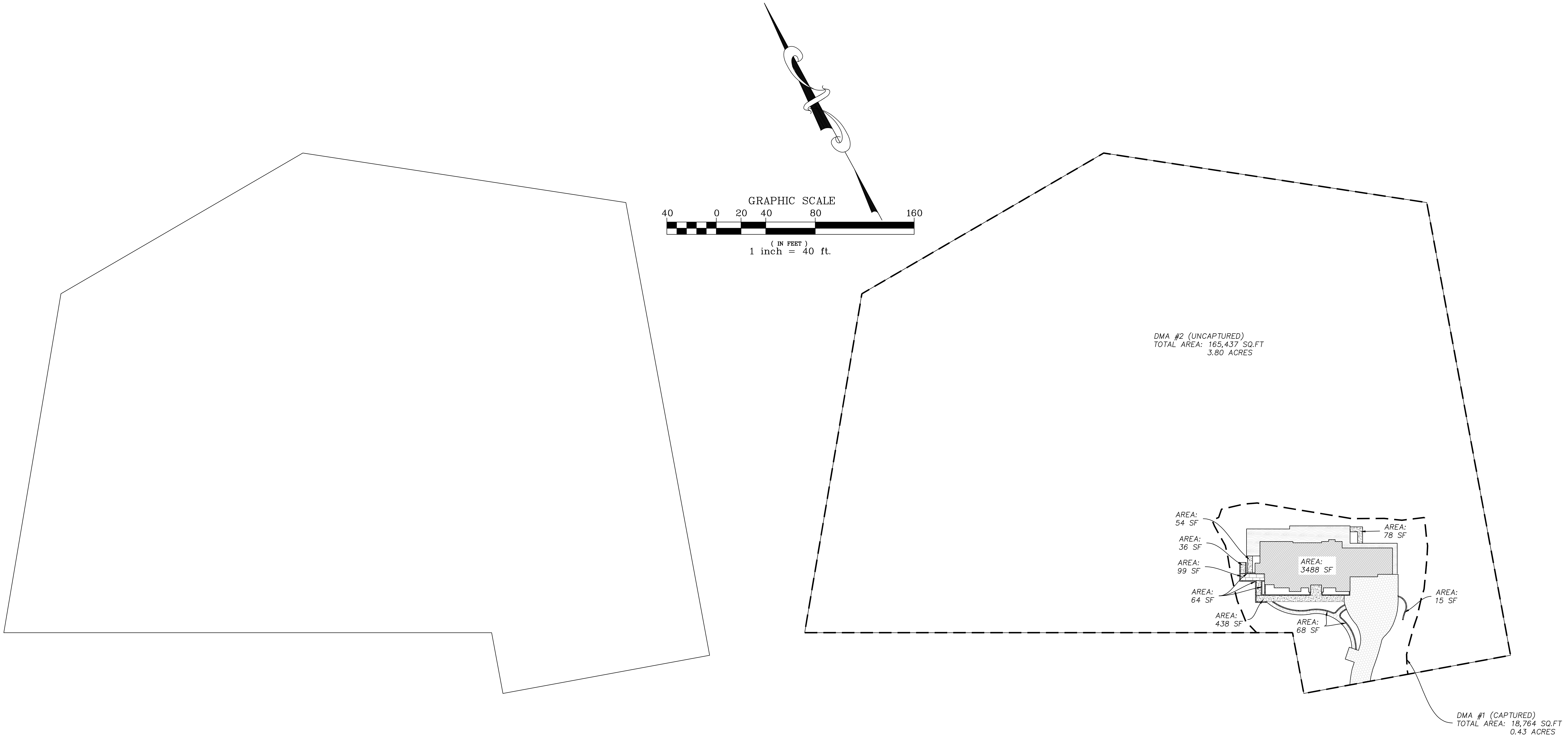
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275
CIVIL

#	REVISIONS	DATE

SHEET NUMBER
C-11
11 OF 12

IMPERVIOUS AREA EXHIBIT



PRE-CONSTRUCTION

POST-CONSTRUCTION

HATCH LEGEND

▨	BUILDING
░	CONCRETE
▦	PAVER
░	DECOMPOSED GRANITE (NOT COUNTED AS IMPERVIOUS)
░	TURFSTONE PERMEABLE (NOT COUNTED AS IMPERVIOUS)

IMPERVIOUS SURFACE AREAS	
TOTAL PROPERTY AREA	184,201 FT^2
IMPERVIOUS AREA	
PRE-CONSTRUCTION	0 FT^2
POST-CONTRUCTION	4,340 FT^2
NET CHANGE	4,340 FT^2

DRAINAGE MANAGEMENT AREAS

	IMPERVIOUS	LANDSCAPE	TOTAL
DMA #1	4,340 FT^2	14,424 FT^2	18,764 FT^2
DMA #2	0 FT^2	165,437 FT^2	165,437 FT^2
TOTAL	4,340 FT^2	179,861 FT^2	184,201 FT^2

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SCALE 1" = 40'
DATE 12-7-2024
JOB# 5573
APN 182-54-013

NEW SINGLE-FAMILY HOUSE
929 LAUREL GLEN DRIVE
PALO ALTO, CA 94303
CITY OF PALO ALTO SANTA CLARA COUNTY

WILLIAM JAY HAMMOND
C 89275
CIVIL
William Jay Hammond

#	REVISIONS	DATE

SHEET NUMBER
C-12
12 OF 12

1

Job#5573
December 7th, 2024

Drainage Calculations
929 Laurel Glen Drive, Palo Alto

WILLIAM JAY HAMMOND C 89275 CIVIL

Conveyable Flow Rate (Manning's Equation)

$$Q = A \times \left(\frac{1.49}{n}\right) \times R^{\frac{2}{3}} \times S^{\frac{1}{2}}$$

$$A_{6-inch\ PVC} = (\pi \times 3\ in.^2) \times \frac{1\ ft^2}{144\ in^2} = 0.196 ft^2$$

$$P_{Wetted\ Perimeter} = (2 \times \pi \times 3\ in) \times \frac{1\ ft}{12\ in} = 1.57 ft$$

$$R_{Hydraulic\ Radis} = \frac{A}{P} = \frac{0.196\ ft^2}{1.57\ ft} = 0.125 ft$$

$$Q_{6in\ PVC\ @\ 1\%} = 0.196 ft^2 \times \left(\frac{1.49}{0.012}\right) \times 0.125 ft^{\frac{2}{3}} \times 0.01^{\frac{1}{2}}$$

$$Q_{6in\ PVC\ @\ 1\%} = 0.610 \frac{ft^3}{sec}\ (\text{max}\ flow\ rate\ conveyable)$$

Captured Area Site Runoff (Rational Method)

$$Q = C \times A \times I_{10-Min}$$

$$I_{10-Min} = 2.42 \frac{in}{hr}\ \text{(10-Year storm event – NOAA Atlas 14 Vol. 6 Ver. 2)}$$

$$Q = 2.42 \frac{in}{hr} \times \left[\left(0.3 \times 14{,}424 ft^2 \times \frac{1\ acre}{43560 ft^2}\right) + \left(0.9 \times 4{,}340 ft^2 \times \frac{1\ acre}{43560 ft^2}\right)\right]$$

$$Q_{Max\ Captured} = 0.4574 \frac{ft^3}{sec}$$

Conveyance Sizing

$$0.4574 \frac{ft^3}{sec} < 0.610 \frac{ft^3}{sec} 0$$

The runoff captured in the system (for a 10-year storm event and 10-min Time of Concentration) is less than the maximum conveyable flow rate of a 6" PVC pipe sloped at 1%.

NOAA Atlas 14, Volume 6, Version 2
Location name: Palo Alto, California, USA*
Latitude: 37.3756°, Longitude: -122.1779°
Elevation: 575 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**1.81** (1.57-2.14)	**2.28** (1.96-2.68)	**2.89** (2.47-3.41)	**3.38** (2.87-4.03)	**4.07** (3.31-5.05)	**4.60** (3.64-5.86)	**5.12** (3.94-6.73)	**5.68** (4.21-7.73)	**6.42** (4.52-9.19)	**6.98** (4.73-10.4)
10-min	**1.30** (1.12-1.52)	**1.63** (1.40-1.92)	**2.07** (1.78-2.44)	**2.42** (2.06-2.89)	**2.92** (2.37-3.62)	**3.29** (2.60-4.19)	**3.67** (2.82-4.83)	**4.07** (3.02-5.54)	**4.60** (3.24-6.59)	**5.00** (3.38-7.48)
15-min	**1.05** (0.904-1.23)	**1.32** (1.13-1.55)	**1.67** (1.43-1.97)	**1.96** (1.66-2.33)	**2.35** (1.91-2.92)	**2.65** (2.10-3.38)	**2.96** (2.28-3.89)	**3.28** (2.43-4.46)	**3.71** (2.62-5.31)	**4.04** (2.73-6.03)
30-min	**0.730** (0.630-0.856)	**0.916** (0.788-1.08)	**1.16** (0.996-1.37)	**1.36** (1.15-1.62)	**1.63** (1.33-2.03)	**1.84** (1.46-2.35)	**2.06** (1.58-2.71)	**2.28** (1.69-3.10)	**2.58** (1.82-3.69)	**2.81** (1.90-4.19)
60-min	**0.515** (0.444-0.603)	**0.646** (0.556-0.758)	**0.818** (0.702-0.964)	**0.959** (0.814-1.14)	**1.15** (0.937-1.43)	**1.30** (1.03-1.66)	**1.45** (1.12-1.91)	**1.61** (1.19-2.19)	**1.82** (1.28-2.60)	**1.98** (1.34-2.96)
2-hr	**0.377** (0.325-0.442)	**0.471** (0.406-0.554)	**0.596** (0.511-0.702)	**0.697** (0.591-0.830)	**0.835** (0.679-1.04)	**0.941** (0.746-1.20)	**1.05** (0.806-1.38)	**1.16** (0.861-1.58)	**1.31** (0.923-1.87)	**1.42** (0.962-2.13)
3-hr	**0.316** (0.272-0.371)	**0.395** (0.340-0.464)	**0.500** (0.428-0.589)	**0.585** (0.496-0.696)	**0.700** (0.569-0.869)	**0.789** (0.625-1.01)	**0.879** (0.675-1.16)	**0.972** (0.721-1.32)	**1.10** (0.773-1.57)	**1.19** (0.806-1.78)
6-hr	**0.226** (0.195-0.265)	**0.283** (0.244-0.333)	**0.358** (0.307-0.422)	**0.419** (0.356-0.499)	**0.502** (0.408-0.624)	**0.566** (0.448-0.722)	**0.631** (0.485-0.829)	**0.697** (0.518-0.949)	**0.788** (0.555-1.13)	**0.857** (0.579-1.28)
12-hr	**0.149** (0.128-0.175)	**0.188** (0.162-0.221)	**0.239** (0.205-0.282)	**0.281** (0.238-0.334)	**0.337** (0.274-0.419)	**0.381** (0.302-0.486)	**0.426** (0.327-0.560)	**0.472** (0.350-0.642)	**0.534** (0.376-0.765)	**0.582** (0.393-0.869)
24-hr	**0.091** (0.083-0.103)	**0.116** (0.105-0.132)	**0.149** (0.134-0.169)	**0.176** (0.157-0.201)	**0.212** (0.184-0.250)	**0.241** (0.204-0.289)	**0.269** (0.224-0.330)	**0.298** (0.242-0.376)	**0.338** (0.264-0.442)	**0.369** (0.279-0.498)
2-day	**0.059** (0.053-0.066)	**0.076** (0.068-0.086)	**0.098** (0.088-0.111)	**0.116** (0.103-0.132)	**0.140** (0.121-0.164)	**0.158** (0.134-0.190)	**0.176** (0.147-0.216)	**0.195** (0.158-0.246)	**0.220** (0.172-0.288)	**0.240** (0.181-0.323)
3-day	**0.045** (0.040-0.051)	**0.058** (0.053-0.066)	**0.076** (0.068-0.086)	**0.090** (0.080-0.103)	**0.109** (0.094-0.128)	**0.123** (0.104-0.147)	**0.137** (0.114-0.168)	**0.151** (0.123-0.191)	**0.171** (0.133-0.223)	**0.185** (0.140-0.250)
4-day	**0.037** (0.034-0.042)	**0.049** (0.044-0.055)	**0.064** (0.057-0.072)	**0.075** (0.067-0.086)	**0.091** (0.079-0.107)	**0.103** (0.088-0.124)	**0.115** (0.095-0.141)	**0.127** (0.103-0.160)	**0.143** (0.112-0.187)	**0.155** (0.117-0.209)
7-day	**0.027** (0.024-0.030)	**0.035** (0.031-0.039)	**0.045** (0.041-0.051)	**0.054** (0.048-0.061)	**0.065** (0.056-0.076)	**0.073** (0.062-0.088)	**0.082** (0.068-0.100)	**0.090** (0.073-0.114)	**0.101** (0.079-0.133)	**0.110** (0.083-0.148)
10-day	**0.021** (0.019-0.023)	**0.027** (0.024-0.031)	**0.035** (0.031-0.040)	**0.042** (0.037-0.048)	**0.050** (0.044-0.059)	**0.057** (0.048-0.068)	**0.063** (0.053-0.078)	**0.070** (0.057-0.088)	**0.079** (0.061-0.103)	**0.085** (0.064-0.115)
20-day	**0.013** (0.012-0.015)	**0.017** (0.015-0.020)	**0.022** (0.020-0.026)	**0.027** (0.024-0.031)	**0.032** (0.028-0.038)	**0.037** (0.031-0.044)	**0.041** (0.034-0.050)	**0.045** (0.036-0.057)	**0.050** (0.039-0.066)	**0.055** (0.041-0.074)
30-day	**0.010** (0.009-0.012)	**0.014** (0.012-0.016)	**0.018** (0.016-0.020)	**0.021** (0.019-0.024)	**0.026** (0.022-0.030)	**0.029** (0.025-0.035)	**0.032** (0.027-0.040)	**0.036** (0.029-0.045)	**0.040** (0.031-0.052)	**0.043** (0.033-0.058)
45-day	**0.009** (0.008-0.010)	**0.011** (0.010-0.013)	**0.015** (0.013-0.017)	**0.017** (0.016-0.020)	**0.021** (0.018-0.025)	**0.024** (0.020-0.029)	**0.026** (0.022-0.032)	**0.029** (0.023-0.037)	**0.032** (0.025-0.042)	**0.035** (0.026-0.047)
60-day	**0.008** (0.007-0.009)	**0.010** (0.009-0.011)	**0.013** (0.012-0.015)	**0.015** (0.014-0.018)	**0.019** (0.016-0.022)	**0.021** (0.018-0.025)	**0.023** (0.019-0.028)	**0.025** (0.020-0.032)	**0.028** (0.022-0.036)	**0.030** (0.022-0.040)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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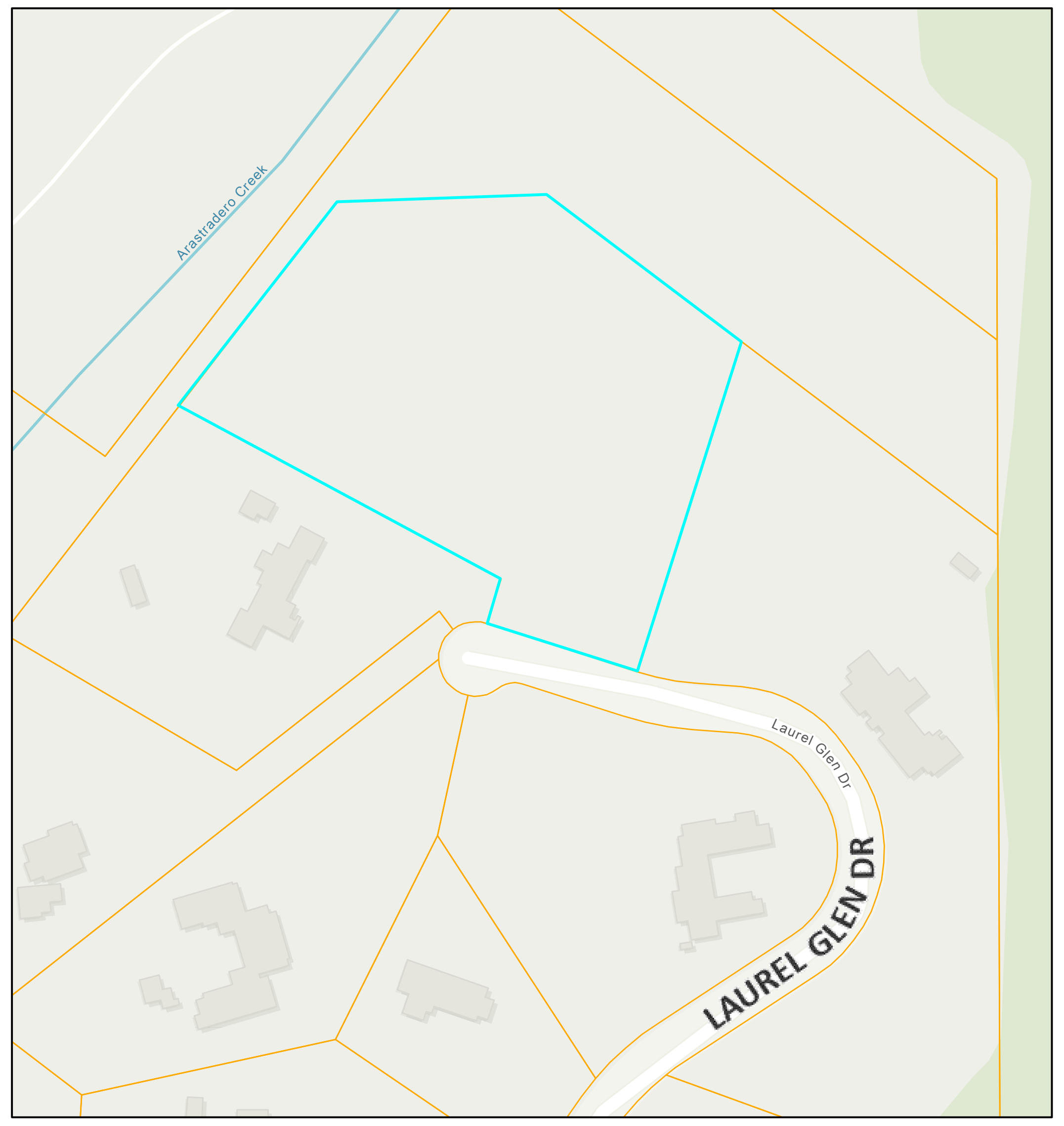
PF graphical

ArcGIS Web AppBuilder



15:38:45 1/11/2024

Streets
🟧 Parcels
☐ SCCCountyBoundary

1:2,257
0 0.01 0.03 0.06 mi
0 0.02 0.04 0.09 km

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County of Santa Clara, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS | County of Santa Clara; Sanborn Map

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City of Palo Alto
Public Works Engineering
Phone: 650/329-2151 FAX: 650/329-2240

IMPERVIOUS AREA WORKSHEET FOR LAND DEVELOPMENTS

Applicants for all projects creating or replacing 500 square feet or more of impervious surface must fill out this worksheet and submit it to the Building Inspection Division prior to issuance of a building permit.

Property Address 929 Laurel Glen Dr, Palo Alto
APN 182 - 54 - 013
Applicant Name Ken Ngai
Lot size (sq. ft.) 184,201
Title of Dwg. used to calculate revised impervious area C-12
Dwg. Date 12-07-2024
Land Use (Circle one): [✓ Residential] Commercial Industrial Roadway
For residential uses ⇒ Number of living units (Circle one): [✓ 1] 2 3 or more
Project Type (Circle one): [✓ New Development] Redevelopment
Watershed (Circle one): San Francisquito [✓ Matadero] Barron Adobe SF Bay
(see attached watershed map)

Purpose of Worksheet

The City of Palo Alto is collecting information on impervious surfaces created by land development projects in order to meet the requirements of its Stormwater Discharge Permit, issued by the San Francisco Bay Regional Water Quality Control Board. In addition, this information is used to calculate the monthly Storm Drainage Fee for non-single-family residential properties (single-family residential properties are assessed a flat monthly Storm Drainage Fee).

Every developed land parcel in the City of Palo Alto is assessed a monthly Storm Drainage Fee. The fee is based upon the relative contribution of storm water runoff from each parcel to the City's storm drainage system. A parcel's relative contribution of storm water runoff is based upon the amount of "impervious surface" on that parcel.

"Impervious surface" means that part of a developed parcel that has been modified to reduce the land's natural ability to absorb and hold rainfall. It includes hard surfaces which cause water to run off the surface in greater quantities or at an increased rate of flow from the flow that existed under natural conditions prior to development. For example, common impervious surfaces include, but are not limited to, rooftops, walkways, patios, courtyards, driveways, parking lots, storage areas, concrete or asphalt paving, gravel roads, or any cleared, graded, graveled, paved, or compacted surfaces, or other surfaces which similarly impede the natural infiltration of surface water into the soil.

IMPERVIOUS AREA SUMMARY

Lot size (sq. ft.) 184,201 (a)
Existing impervious surface (sq. ft.) 0 (b)
Existing percent impervious [line (b)÷line (a)] (%) 0 (c)
Area of impervious surface to be constructed (sq. ft.) 4,340 (d)
Ratio of newly constructed impervious surface to existing impervious surface [line (d) ÷ line (b)] (%) N/A (e)
Approximate area of land disturbance during construction (sq. ft.) 10,069 (f)
Final impervious surface (sq. ft.) 4,340 (g)
(From "Impervious Area Calculation", see back side.)
Revised percent impervious [line (g) ÷line (a)] (%) 2.4% (h)

STAFF ONLY
Building Permit #________ Building Permit Application Date________ Reviewer________

IMPERVIOUS AREA CALCULATION
(Select one of the following methods and provide the required information)

METHOD 1

Calculate the area of impervious surface by measuring all impervious improvements.

	Sq. ft.	
Buildings	+ 3,488	(1)
Parking/storage areas (including driveways)	+ 0	(2)
Walkways	+ 438	(3)
Patios and courtyards	+ 267	(4)
Other (specify Retaining wall)	+ 147	(5)
Total impervious area (sum #1 thru 5)	4,340	(6)

METHOD 2

Calculate the area of impervious surface by subtracting the area of pervious surface from the total area of the parcel.

	Sq. ft.	
Total area of parcel (from Assessor's Book)	+	(7)
Pervious Areas		
Landscaping	-	(8)
Undisturbed areas	-	(9)
Other (specify________)	-	(10)
Total impervious area (sum #7 thru 10)		(11)

METHOD 3

Calculate the area of impervious surface by adding (or subtracting) the net change in impervious surface as a result of construction to the impervious surface that existed prior to construction.

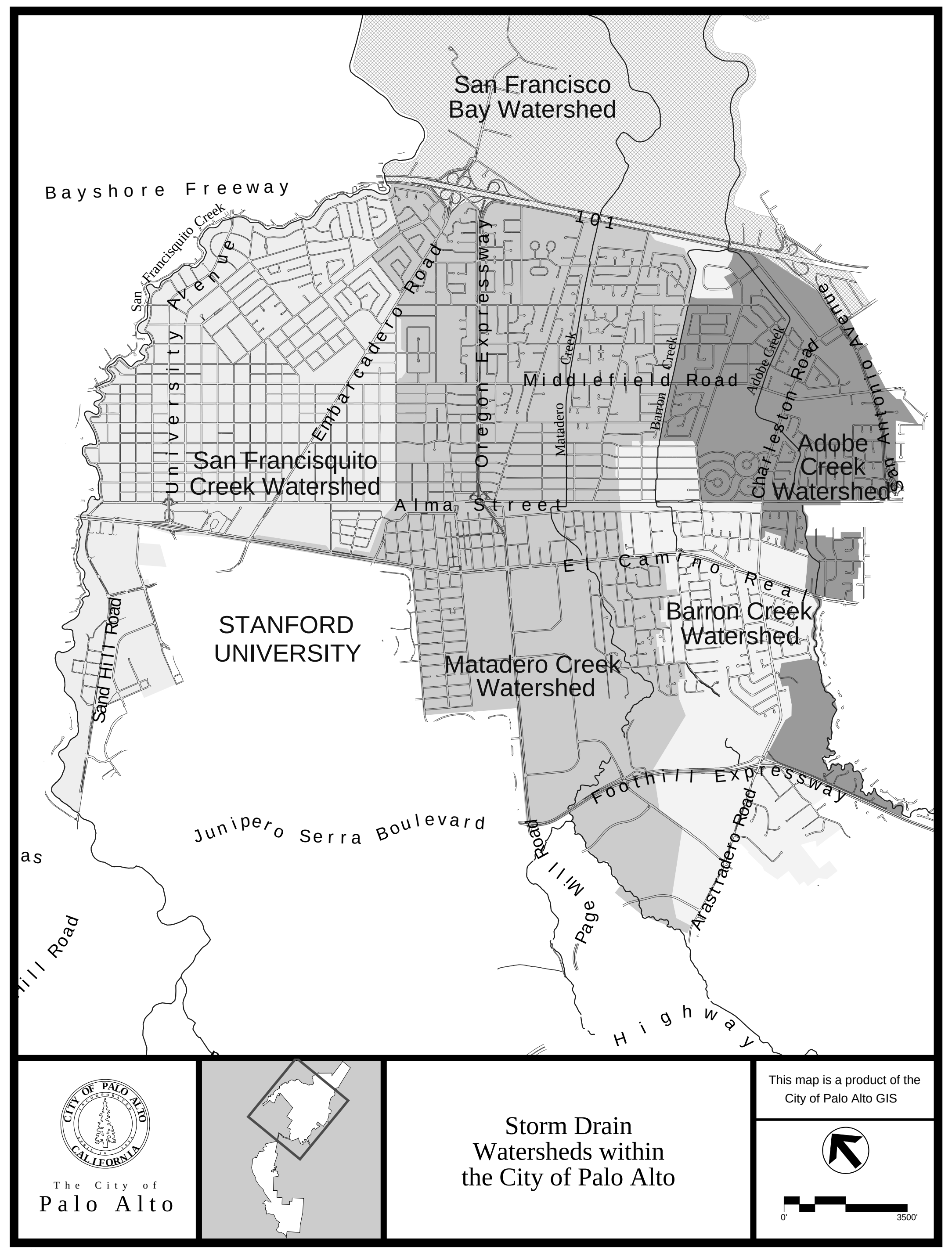
	Sq. ft.	
Existing impervious area	+	(12)
New Impervious Areas		
Buildings	+	(13)
Parking/storage areas (including driveways)	+	(14)
Walkways	+	(15)
Patios and courtyards	+	(16)
Other (specify________)	+	(17)
Impervious Area Removed		
Buildings	-	(18)
Parking/storage areas (including driveways)	-	(19)
Walkways	-	(20)
Patios and courtyards	-	(21)
Other (specify________)	-	(22)
Total impervious area (sum #12 thru 22)		(23)

Instructions for *Impervious Area Worksheet*

Beginning May 1, 2002, applicants for all projects creating or replacing 500 square feet or more of impervious surface must fill out an *Impervious Area Worksheet* and submit it to the Building Inspection Division prior to issuance of a building permit. If you have questions about the form or the requested data, please consult with Public Works Engineering staff at the Development Center.

Line-by-Line Instructions

Property Address:	Insert the street name and address for the subject property.
APN:	Insert the Assessor's Parcel Number (APN) for the subject property.
Applicant Name:	Insert the name of the person applying for the building permit for the subject project.
Lot Size:	Insert the size of the subject property in square feet.
Title of Drawing:	Insert the name or number of the plan drawing used to calculate the impervious surface information.
Drawing Date:	Insert the date of the drawing used to calculate the impervious surface information.
Land Use:	Circle the appropriate land use for the subject property. If the property use is residential, circle the appropriate number of living units.
Project Type:	Circle the appropriate project type. For purposes of this form, "new development" is construction on land that has never been built upon; everything else is considered "redevelopment".
Watershed:	Circle the appropriate storm drain watershed for the subject property. Use the map on the reverse side of this form to identify the correct watershed.
Existing Impervious Surface:	Insert the amount of impervious surface (in square feet)currently on the subject property (or on the property prior to any recent demolition). See the "Purpose of Worksheet" section of the form for a definition of "impervious surface".
Area of Impervious Surface to be Constructed:	Insert the total amount of impervious surface (in square feet) to be constructed as part of the subject project (both construction of new impervious surface over existing pervious areas, as well as replacement of existing impervious surface with new impervious surface). DO NOT INCLUDE routine maintenance work such as reroofing, resurfacing of existing paved areas, etc. in the calculation of impervious surface.
Approximate Area of Land Disturbance:	Insert the approximate area (in square feet) to be disturbed by construction operations (including clearing, grading, excavating,, etc.)
Final Impervious Surface:	Insert the amount of impervious surface (in square feet) that will be on the subject property at the conclusion of the project (using the calculation worksheets on the back of the form).



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Palo Alto, CA 94303
office@VRchitects.com

929 Laurel Glen Drive, Palo Alto, CA
929 Laurel Glen Drive
Palo Alto , CA 94304

Project Number: Project Number

Drawings and Specifications as instruments of service are and shall remain the property of the Architect. They are not to be used on extensions of the project, or other projects, except by agreement in writing and appropriate compensation to the Architect.

The General Contractor is responsible for confirming and correlating dimensions at the job site. The Architect will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the project.

DANIEL J. HRUBY No. C-31344 REN. 2/28/2025

REV	ISSUE	DATE
01	1st Planning Submittal	12/18/2024

Drainage Calcs/ Impervious Area Worksheet

C-13

Printed: 12/19/2024