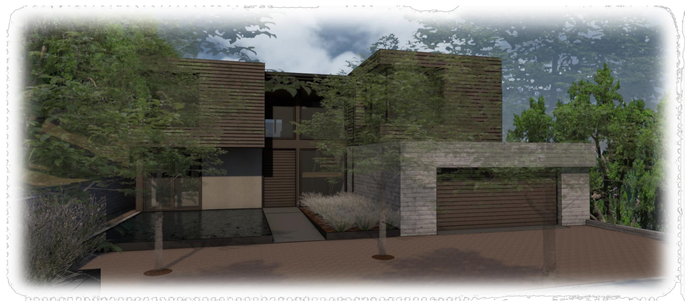
ABBREVIATIONS

&	and
L	angle
@	at
Ø	diameter
#	pounds or number
(e)	existing
(n)	new
cL	centerline
ac	asphaltic concrete
acst	acoustical
adj	adjustable
aggr	aggregate
alum	aluminum
aprox	approximately
arch	architectural
bd	board
bitum	bituminous
bldg	building
blkg	blocking
bm	beam
bot	bottom
cabt	cabinet
cb	catch basin
cem	cement
cer	ceramic
ci	cast iron
clg	ceiling
clos	closet
clr	clear
co	cased opening/clean out
col	column
conc	concrete
cont	continuous
contr	contractor
cntr	counter
cy	cubic yard
dbl	double
dept	department
det	detail
df	douglas fir
dia	diameter
dim	dimension
disp	disposal or dispenser
dn	down
dwr	drawer
dr	door
ds	downspout
dwg	drawing
e	east
ea	each
elev	elevation
elec	electrical
encl	enclosure
eq	equal, equivalent
equip	equipment
exp	expansion
ext	exterior
fa	fire alarm
fd	floor drain
fnd	foundation
fec	fire extinguisher cabinet
fin	finish
flr	floor
fluor	fluorescent
foc	face of concrete
fof	face of finish
fos	face of stud
ft	foot or feet
ftg	footing
furr	furring
fut	future
ga	gauge
galv	galvanized
gb	grab bar
g.i.	galvanized iron
gl/gls	glass
gr	grade
gyp	gypsum
hb	hose bibb
hc	hollow core
hdwe	hardware
hgt	height
hm	hollow metal
hngr	hanger
horiz	horizontal
hr	hour
hwd	hardwood
id	inside diameter
inst	install, installation
insul	insulation
int	interior
jan	janitor
jnt	joint
jst	joist
kit	kitchen
lam	laminate
lav	lavatory
lt	light
max	maximum
mc	medicine cabinet
mech	mechanical
memb	membrane
mtl	metal
manuf	manufacturer
min	minimum
misc	miscellaneous
mntd	mounted
n	north
negl	neglible
nic	not in contract
no	number
nom	nominal
nts	not to scale
obsc	obscure
oc	on center
od	outside diameter
off	office
opp	opposite
pl	plate
prtn	partition
plywd	plywood
pr	pair
pt	point or paint
ptdf	pressure treated douglas fir (use ACQ)
pise	pneumatically impacted stabilized earth
qt	quarry tile
r	riser
rad	radius
rd	roof drain
ref	reference
refr	refrigerator
reinf	reinforced
reqd	required
rm	room
ro	rough opening
rwd	redwood
re	rammed earth
s	south
sc	solid core
sched	schedule
sec	section
serv	service
sh	shelf
sht	sheet
shwr	shower
sim	similar
specs	specifications
sq	square
ss	stainless steel or sanitary sewer
sta	station
std	standard
stl	steel
stor	storage
sd	storm drain
struct	structural
sb	straw bale
sym	symmetrical
t	tread
tel	telephone
ter	terrazzo
t&g	tongue and groove
thk	thick
toc	top of curb
tow	top of wall
tv	television
typ	typical
unf	unfinished
uno	unless noted otherwise
ugnd	underground
util	utility
vert	vertical
vest	vestibule
w	west
w/	with
wc	water closet
wd	wood
w/o	without
wp	waterproof
wsct	wainscot
wt	weight
yd	yard

TOOFAN RESIDENCE

200 Happy Acres Road Los Gatos, CA 95032





RESIDENTIAL PROJECT DATA – 200 HAPPY ACRES ROAD			
07/03/24	EXISTING CONDITIONS	PROPOSED RESIDENCE	REQUIRED/ PERMITTED
General Plan designation	Residential	Residential	4 DU/Acre
Zoning district	HR – 2½	HR – 2½	HR – 2½
Land use	single family home	single family home	permitted use
Lot size - sq. ft./acres	118,816 s.f. / 2.728 ac.	118,816 s.f. / 2.728 ac.	40,000 sq. ft. min.
Exterior materials:			
siding	n/a	Stucco, Concrete Stained Cedar	Conforms to HS Design Guidelines/WUI Code
trim	n/a	Stained Cedar	Conforms to HS Design Guidelines
windows	n/a	Dark Bronze/Black Anodized Aluminum	Conforms to HS Design Guidelines/WUI Code
roofing	n/a	Flat IB	Class A - WUI Code
Building floor area:			
main floor area	0 s.f.	2,803 s.f.	
garage floor area > 400 sf	0 s.f.	198 s.f.	
cabana floor area	0 s.f.	307 s.f.	
upper floor	0 s.f.	2,611 s.f.	
total house floor area	0 s.f.	5,919 s.f.	6,000 sq. ft. max.
garage	0 s.f.	400 s.f.	400 sq. ft. allow.
total overall floor area	0 s.f.	6,319 s.f.	6,400 sq. ft. max.
ADU Floor Area	0 s.f.	0 s.f.	1,200 sq. ft. max.
Basement Floor Area	0 s.f.	2,803 s.f.	Not counted toward FAR
Setbacks (ft.):			
front	n/a	62'-0"	30 feet min.
rear	n/a	134'-0"	25 feet min.
right side	n/a	136'-0"	20 feet min.
left side	n/a	78'-0"	20 feet min.
Floor Area Ratio (%)	n/a	5.32%	12.63% max.
Maximum height (ft.)	n/a	24'-6"	25'-0" max.
Building coverage (%)	n/a	2.86%	40% max.
Grading (cu. yds.)			
cut		See Civil Drawings	-
fill		See Civil Drawings	-
Parking:			
garage spaces	0	2	0
uncovered spaces	0	2	2
total spaces	0	4	2
Tree Removals:	Numerous Oak Trees existing to remain	16 trees to be removed	Twenty (20) new replacement trees.

FIRE SPRINKLER REQUIREMENTS

1. **Automatic Fire Sprinkler System**

   submit three (e) sets of shop drawings/hydraulic calcs to:
   Santa Clara County Fire Dept
   14700 Winchester Blvd.
   Los Gatos, CA 95032
   (408) 378-4010 phone
   (408) 378-9342 fax

   Fire protection sub-contractor is responsible for verification of existing water flow, or providing new water flow (pressure tanks) meeting fire dept. requirements as follows:
   - static pressure: 60 psi
   - flow: 35 gpm

   there is one existing fire hydrant:
   1. Happy Acres Rd.

   See note #2 below for additional information.

2. **Potable Water Supplies**

   Final approval of the system under consideration will not be granted by **The Santa Clara County Fire Dept.** until compliance with the requirements of the water purveyor of record are documented by that purveyor as having been met by the applicant.

3. **Construction Site Fire Safety**

   all construction sites must comply with applicable provisions of the **2022 California Fire Code Chapter 33** and **Santa Clara County Fire Dept. Standard Detail and Specification S1-7.**

per **NFPA Standard #13, 2022 CBC** & **2022 CFC,** and all local ordinances, the contractor shall install an approved automatic fire sprinkler system throughout all portions of the proposed residence, garage, storage, closets, attics, etc. per **Santa Clara County Fire Dept.**, typical.
a.) fast response fire sprinkler heads shall also be installed throughout the garage and all contiguous areas within the structure utilized for workshop, or storage purposes.
b.) the **Fire Dept.** must issue a permit prior to the installation of the fire sprinkler system.
c.) the sprinkler contractor must have a **Town of Los Gatos** business license and worker's compensation certificate.
d.) fire sprinkler water:
as required, provide new 2" dia. water meter (separate from domestic water as required). provide new 2" dia. underground copper fire sprinkler water main feed (w/ blue plastic protective jacket) where shown, typical.

Fire sprinkler sub-contractor must be C-16 Licensed and shall submit system design, hydraulic calculations, & shop drawings for approval by The Santa Clara County Fire Dept. and in compliance with the National Fire Protection Association (NFPA) Standard #13D, 2022 CFC. Drawings are to include locations of all new heads, risers, valves, pipe sizes, layouts, required pressures, alarms, details, etc. Entire system shall be designed & installed per Santa Clara County Fire Dept. Standard Details & Specs, typical, u.n.o.

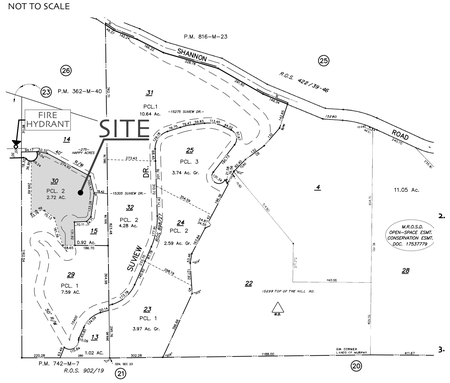
It shall be the responsibility of the general contractor to verify that the existing water main is at least 4" dia. If not, then upgrade the existing water main as required for the proper operation of the new domestic water system, & the new fire sprinkler system.

per **2022 CFC sec. 903.3.5,** & **sec. 13114.7, 2022 California Health & Safety Code**, potable water supplies shall be protected from contamination caused by fire protection water supplies. It is the responsibility of the applicant and any subs and contractors to contact the water purveyor supplying the site of such project, and to comply with the requirements of that purveyor. such backflow prevention requirements shall be incorporated into the design of any water based fire containers that may be physically connected in any manner to an appliance capable of causing contamination of the potable water supply of the purveyor.

all construction sites must comply with applicable provisions of the **2022 California Fire Code Chapter 33** and **Santa Clara County Fire Dept. Standard Detail and Specification S1-7.**

PARCEL MAP

NOT TO SCALE



PLAN CHECK/PERMIT NOTES

1. **School Taxes**
   Developer Impact Fees must be paid by the owner to the local School District(s) prior to the building permit being issued.

2. **Setback/Height Verifications**
   R.C.E. or **L.L.S.** of record to provide certifications letters for the following:
   a. Building Pad Elevation
   b. Finish Floor Elevation
   c. Foundation Corner Locations
   d. Retaining Wall Heights
   e. Toe and top of cut and fill slopes.
   @ foundation inspection:
   at the time of Town foundation inspection, the general contractor shall have a licensed civil engineer or surveyor of record provide written certification for submittal to the **Building Dept.**, indicating that all pad heights and setbacks are in compliance with the approved plans, and that the foundation excavations are in compliance with the recommendations as specified in the Geotechnical Soils Report.
   @ roof nailing inspection:
   at the time of roof nail inspection, contractor shall have a licensed civil engineer or surveyor provide written certification for submittal to the **Building Dept.**, indicating that the building height is in compliance with approved plans and the **Town of Los Gatos Zoning Code**, typical.

3. **Structural Observation Geotechnical Review & Observation**
   A Plan Review Letter by the Geotechnical Engineer of record must be provided stating that he/she has reviewed the plans and that they are in conformance with the soils report recommendations.
   a. structural observation
   A Structural Observation Letter by the structural engineer of record (*?????*) must be obtained at the time of foundation inspection, as well as shear and roof nail inspections.
   b. geotechnical plan review/observation
   A Soils Observation Letter by the geotechnical engineer of record (**GeoForensics, Inc.**) must be obtained at the time of foundation inspection for footing excavations, driveway excavations and compaction, all site drainage facilities and improvements, as well as overall soil observation prior to concrete pour.

4. **Sanitation Permit**
   Prior to issuance of any building permits, contractor must obtain a sewer connection permit from the **West Valley Sanitation District**.

5. **Encroachment Permit Public Works Notes**
   Prior to any work being done in the public right of way (R.O.W.) such as driveways, utility trenching, grading, walkways, etc., contractor must obtain an encroachment permit, and possibly a signed indemnity agreement from the **Town of Los Gatos Public Works Department.**

6. **Deferred Submittals**
   contractor and subs shall provide the listed documents for approval as required by the building official in conformance with Cal/OSHA
   Deferred submittal documents shall be reviewed by architect and engineers only for coordination with their own drawings and as stated by **2022 CBC sec. R106.1 and R301.1.3.1**
   a. plumbing drain/waste single line diagram - prior to underfloor plumbing inspection.
   b. guardrail/handrail structural calculations - prior to fabrication of all guardrail/handrails.
   c. structural steel shop drawings.
   d. automatic fire sprinkler drawings/calcs.

7. **Special Inspections**
   as required by **2022 CBC sec. 1704.**
   See Structural Drawings by *?????* for a list/program of all required Special Inspections. Contractor to submit forms for Special Inspections as required by the **Town of Los Gatos**.

8. **Construction Waste Management Plan**
   see sheet **A-0.3 (CWMP)** for more info.
   A construction site waste management plan shall be followed in accordance with **sec. 4.408.2, 2022 CalGreen Building Standards Code**
   A Construction Waste Management Plan (CWMP) – prior to first inspection a **CWı form** – waste documentation showing compliance to plan shall be filled out and submitted with an approved plan as required by the **Town of Los Gatos**.

9. **Project Manual as-built documentation**
   see sheet **CG-1&2**
   2022 CGBSC for info
   prior to final inspection a manual, compact disc, or web-based reference media including items 1-10 in accordance with **2022 CGBSC, sec. 4.410.1** shall be placed in the building, typical.

10. **CALGreen Environmental Quality Requirements and Verification**
    see sheet **CG-1** & **CG-2**
    2022 CGBSC for info.
    Provide compliance verification of pollutant control requirements:
    a. all adhesives, sealants, caulks, paints, coatings, & aerosol paint containers must remain on site for field verification by Building Inspector per **2022 CGBSC sec. 4.504.2.4** typical.
    b. prior to final inspection, a letter signed by the general contractor OR the owner/builder shall be provided to the Building Official certifying that all products listed in 11 a. above, including carpeting (including pad & adhesive), resilient flooring systems, & composite wood products installed on this project are within emission limits specified in **2022 CGBSC sec. 4.504.**

11. **Framing Moisture Content Requirements per 2022 CGBSC sec. 4.505.3**
    prior to enclosing the wall and floor framing, confirmation must be provided to the Building Inspector showing the framing members do not exceed 19% moisture content, typical.

12. **Permits Required**
    a. Pool Permit
    b. Main House Building Permits
    c. Tree Removal Permit
    d. Grading Permit
    e. Site Retaining Wall Permit

13. **Construction Noise and Hours**
    Noise Levels = Max 85 dB
    the project shall have posted signage 5 ft. above the ground level and shall be visible to the street at all entrances to the construction site that indicates the hours of construction as :
    Monday to Friday - 8:00 am to 8:00 pm
    Weekends/Holidays - 9:00 am to 7:00 pm

14. **Excavation Requirements**
    excavation cuts exceeding 5 feet typically require a **DOSH** permit.
    All excavations must conform to applicable **OSHA** and **CAL-OSHA** requirements. Contact California Department of Occupational Safety and Health (**DOSH**) for information about required permits. **DOSH**'s local office: (510)-794-2521.
    Prior to excavation, the excavation contractor shall submit proof, to Town Building Inspector, that shows he or she has received such a permit from DOSH.

15. **Front Yard Landscaping Requirements**
    Prior to building final inspection and release of a temporary occupancy permit, the front yard must be landscaped or mulched.

PROJECT DESCRIPTION

Property Data

200 Happy Acres Road, Los Gatos, CA
- Zoning – HR-2½ , Single Family with Hillside Residential Overlay Zone
- Historic Category - None
- Gross Site Area = 118,832 s.f. - 2.728 acres
- Net Site Area = 47,533 s.f. - 1.091 acres

Project Summary

The Owner proposes to build a new two story single family residence , with an attached two car garage, with a below grade basement on a steeply sloped, vacant site.
- New main house = 5,919 s.f. FAR
- Attached two car garage
- New Terraces, Steps, and Walkways
- New Covered Porches
- New Swimming Pool/Rear Terrace
- Calif. Native, drought tolerant landscape
- New Cul-de-sac Fire Truck Turnaround at top of existing 300' long shared driveway to be widened and re-graded
- Undergrounding of Electrical Service

Sixteen ordinance size tree removals are required by the proposed projects:
- Eight trees for Roadway/Driveway Project.
- Eight trees for Residence Project.

WUI Fire Hazard Zone Requirements

Given the structure is located in the **Wildland-Urban Interface Fire Area,** we understand that the Building Dept. will require the following:
a. Automatic Fire Sprinkler System will be installed throughout the new structure.
b. Building Component Construction requirements for **Wildland-Urban Interface Fire Areas, per 2016 CBC Chapter 7A.**
c. Vegetation clearance shall be in compliance w/ **2016 CBC sec. 701A.3.2.4** prior to approval.
d. The Construction site shall comply with applicable provisions of the **California Fire Code Chapter 14,** and Fire Department Standard Detail and Specification S1-7.

CONSULTANT DIRECTORY

Architect
Noel F. Cross, AIA
License C-018234
noel@nfcarchitect.com
Noel Cross+Architects
1475 S. Bascom Ave., #218
Campbell, California 95008
Phone (408) 216-0222
Mobile (408) 591-5795

Civil Engineer (house)
John Halbom, PE, PLS, CFM, QSD/P
jtlalbom@leabraze.com
Lea & Braze Engineering, Inc.
1723 Hamilton Ave., Suite 101
San Jose, California 95125
Phone (510) 887-4086
Mobile (510) 715-6028

Civil Engineer (driveway)
Velimir Sulić, P.E.
masonsulic@sbcglobal.net
Peoples Associates Engineers
1150 Campbell Avenue
San Jose, California 95126
Phone (408) 957-9220
Mobile (408) 966-0165

Landscape Architect
Christopher Yates, ASLA
CA LA license #4833
chrisyatesdesign@gmail.com
FIELD Landscape Architecture
205 Happy Hollow Court
Lafayette, California 94549
Mobile (415) 271-1899

Certified Arborist
Bo Firestone, ISA Certified Arborist WE-8254A
Busara@boFirestone.com
Bo Firestone Trees & Gardens
2150 Lacey Drive
Milpitas, California 95035
Mobile (408) 497-7158

Geotechnical Engineer
Daniel F. Dyckman, P.E., G.E. #2145
dan.geoforensics@yahoo.com
GeoForensics, Inc.
303 Vintage Park Drive, Suite 220
Foster City, California 94404
Phone (650) 349-3369
Mobile (415) 370-8355

Certified Engineering Geologist
Steven F. Connelly, C.E.G. #1607
steve@stevenfconnelly.com
Steven F. Connelly, C.E.G.
1169 Avenida Benito
San Jose, California 95131
Phone (408) 392-9999
Mobile (408) 398-9339

Surveyor
Saeid Razavi, P.E. #52724
srazavi@smpengineers.com
SMP Engineers
1534 Carob Lane
Los Altos, California 94024
Phone (650) 941-8755
Mobile (408) 472-5062

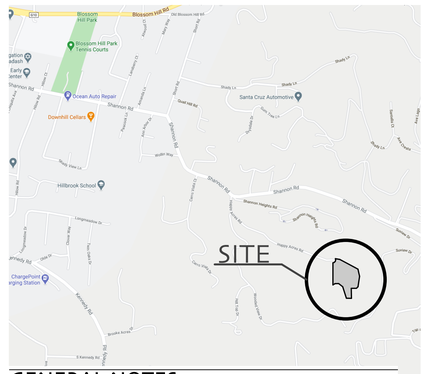
General Contractor
Fred Toofan
License #100-5824
License #102-9943
fred@ftconstructions.com
FT Construction, Inc.
7041 Via Anacapa
San Jose, California 95139
Cell (408) 910-1528

SHEET INDEX (continued)

TOPO SURVEY DRAWINGS by SMP Engineers
T1-1 Partial Topographic Survey @ 1" = 20'-0" (north half of site), Slope calculation and notes
T1-2 Partial Topographic Survey @ 1" = 20'-0" (south half of site)

VICINITY MAP

NOT TO SCALE



GENERAL NOTES

1. **Verification** — contractor and all subcontractors shall establish all building lines, floor levels, etc., and shall verify all grades, conditions, dimensions, and data at the site prior to start of work; errors resulting from failure to verify all figures shall be the responsibility of the contractor and each subcontractor.
2. **Dimensions** — do not scale these drawings. written dimensions take precedence over scaled drawings. the contractor shall notify the architect immediately of any conflicts or discrepancies, however minor.
3. **Discrepancies** — minor discrepancies btwn. the drawings & actual site conditions are expected. any and all conditions requiring even minor clarification shall be brought to the attention of the architect immediately, preferably a minimum of 48 hours prior to the beginning any demolition or construction sequence.
4. **Codes** — all work shall be in conformance with the following codes, as well as all applicable state codes & local city or county ordinances:
   2022 California Building Code (C.B.C.)
   (based on 2021 International Building Code)
   2022 California Residential Code (C.R.C.)
   (based on 2021 International Residential Code)
   2022 California Electrical Code (C.E.C.)
   (based on 2020 National Electrical Code)
   2022 California Plumbing Code (C.P.C.)
   (based on 2021 Uniform Plumbing Code)
   2022 California Mechanical Code (C.M.C.)
   (based on 2021 Uniform Mechanical Code)
   2022 California Fire Code (C.F.C.)
   (based on 2021 International Fire Code)
   2022 California Energy Code (C.E.C.)
   2022 California Green Building Standard Code (C.G.B.S.C. or CALGreen)
5. **Manufacturer's Specifications** — all manuals to be compiled in an indexed binder format. contractor and all subcontractors shall install or apply, and protect all products, materials, processes, methods, coatings, equipment, appliances, hardware, software, etc. in strict accordance with the manufacturer's details, specifications, & instructions, typical. all manuals or instructions provided by these manufacturers for proper operation & maintenance of the above are to be delivered to the owner at the completion and final inspection of the project.

SHEET INDEX

ARCHITECTURAL DRAWINGS
A-0.0 Title Sheet, Vicinity Map, General Notes, Sheet Index, Consultant Directory, Impervious Coverage Summary, Parcel Map, Abbreviations, Project Description, Project Data Summary, Fire Protection Notes, Abbreviations
A-0.1 Neighborhood Context Exhibit, Neighbor House Photos
A-0.2 Viewing Platform Visibility Study/Sight Line Exhibit
A-1.0 Proposed Site Plan @ 1" = 20'-0", Maximum Graded Cuts & Fills, and Site Plan Notes
A-1.1 Arborist Report (Roadway Project) by Bo Firestone
A-1.2 Roadway Tree Protection Plan & Notes by Bo Firestone
A-1.3 Arborist Report (Residence Project) by Bo Firestone
A-1.4 Residence Tree Protection Plan & Notes by Bo Firestone
A-2.0 Proposed Basement Floor Plan/Site Plan @ 1/8" = 1'-0", Floor Plan Notes, Door Schedule and Legend
A-2.1 Proposed Main Floor Plan/Site Plan @ 1/8" = 1'-0", Floor Plan Notes, Window Schedule and Legend
A-2.2 Proposed Upper Floor Plan @ 1/8" = 1'-0", Floor Plan Notes, Window Schedule and Legend
A-4.0 (P) East, South, Courtyards West "A" and East "B" Exterior Elevations @ 1/8"=1'-0" and Exterior Elevation Notes
A-4.1 (P) West, North, Light Wells East "C" and West "D" Exterior Elevations @ 1/8"=1'-0"and Exterior Elevation Notes
A-4.2 (P) East, South, North "A", West, North, South "B" and North "C" Exterior LRV Elevations @ 1/8"=1'-0", Materials Color Board and LRV Calculations Table
A-5.0 Proposed Roof Plan @ 1/8" = 1'-0" and Notes
A-5.1 Shadow Studies (not sure we need these!)
A-6.0 Site Cross Sections A & B @ 1/8" = 1'-0"
A-6.1 Site Cross Sections C & D @ 1/8" = 1'-0"
A-6.2 Site Cross Sections E & F @ 1/8" = 1'-0"
A-6.3 Site Cross Sections G & H @ 1/8" = 1'-0"
A-6.4 Site Cross Sections J & K @ 1/8" = 1'-0"
FAR-1 F.A.R. Diagrams @ 1/8" = 1'-0" and Floor Area Summary
CG-1 2022 California Green Building Standards Code, Residential
CG-2 2022 California Green Building Standards Code, Residential

LANDSCAPE DRAWINGS by Field Landscape Architecture
L-1 Landscape Lighting Plan @ 1" = 16'-0", Lighting Schedule and Notes
L-2 Tree Protection Plan @ 1" = 16'-0", Tree Protection Detail and Notes
L-3 Preliminary Landscape Planting Plan @ 1/16" = 1'-0" and Plant Legend
L-4 Preliminary Landscape Hydrozone Plan @ 1/16" = 1'-0" and Hydrozone Legend
I1.0 Irrigation Plan @ 1/16" = 1'-0", Irrigation line sizing chart (Ann B. Carroll, Irrigation Design Consultants)
I2.0 Irrigation Legend and Notes (Irrigation Design Consultants)
I3.0 Irrigation Details (Irrigation Design Consultants)
I4.0 Irrigation Specs/Details (Irrigation Design Consultants)
I5.0 Irrigation WELO Calculations (Irrigation Design Consultants)

HOUSE CIVIL DRAWINGS by Lea & Braze Engineering, Inc.
C-1.0 Title Sheet, Key Map, Specifications, General Notes, Abbreviations and Sheet Index
C-1.1 Overall Site Plan @ 1" = 30'-0"
C-2.0 Grading & Drainage Plan @ 1" = 10'-0" and Flatwork & Demolition Notes
C-3.0 Utility Plan @ 1" = 10'-0" and Storm Drain & Utilities Notes
C-4.0 Site Retaining Wall, Area Drain & Drainage Details
C-4.1 Retention System Details
C-5.0 General Notes, Stormwater Pollution Prevention and Grading & Drainage Notes
ER-1 Erosion Control Plan and Notes
ER-2 Erosion Control Details and Notes
SW-1 Blueprint for a Clean Bay sheet

DRIVEWAY CIVIL DRAWINGS by Peoples Associates Engineers
CD-1 Title Sheet, Key Map, Specifications, Earthwork Quantities, Legend, Retaining Wall & Grading Notes and Sheet Index
CD-2 Driveway Site Plan @ 1" = 20'-0", Tree Notes, driveway impervious areas, Notes and Legend
CD-3 New Common Driveway Plan and Profile @ 1" = 10'-0", Grading Quantities and Notes
CD-4 Driveway Sections @ 1" = 10'-0" and details
CD-5 Erosion Control Plan @ 1" = 30'-0", Erosion Control Notes and Details
FTM1 Fire Truck Movement Plan & Existing Road Widths Exhibit

ARCHITECT

Noel Cross+Architects
1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A0.0
Of date printed:	7/16/24

NEIGHBORHOOD CONTEXT

NOT TO SCALE


110 WOODED VIEW

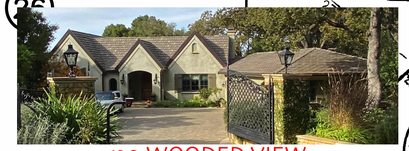

110 HAPPY ACRES


145 HAPPY ACRES


135 HAPPY ACRES


120 HAPPY ACRES

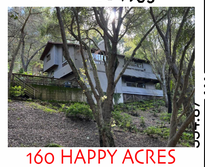

155 HAPPY ACRES


130 WOODED VIEW


135 WOODED VIEW


165 WOODED VIEW


150 HAPPY ACRES


160 HAPPY ACRES


165 HAPPY ACRES

SUBJECT SITE


100 HILL TOP

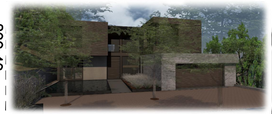

104 HILL TOP


205 WOODED VIEW


120 HILL TOP


135 HILL TOP


333 HAPPY ACRES


200 HAPPY ACRES

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A0.1

Of date printed: 7/16/24

VISIBILITY STUDY

NOT TO SCALE



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A0.2

Of date printed: 7/16/24

PROPOSED SITE PLAN

SCALE: 1" = 20'



Maximum Graded Cuts and Fills

Site Element	Cut*		Fill*		Remarks
	Max. Allowed	Actual	Max. Allowed	Actual	
House and Attached Garage	8' **	3'	3'	1'-6"	fill at Garage
House and Attached Garage (Cellar areas)**	no max. limit	14'	3'	0'	entire main floor has "cellar" underneath
Accessory Building *	4'	N/A	3'	N/A	no accessory buildings proposed
Tennis Court *	4'	N/A	3'	N/A	no tennis court proposed
Pool *	4' ***	4'	3'	0'	
Driveways *	4'	4'	3'	3'	Required for Fire Truck Turnaround
Other (decks, yards) *	4'	4'	3'	3'	

* Combined depths of cut plus fill for development other than the main residence shall be limited to 6 feet

** Excludes cellars

*** Excludes excavation for pool

SITE PLAN NOTES

1. **Easement, Driveway & Vehicle Access Gate**

   Prepare subgrade per Geotechnical Report by **GeoForensics, Inc.** Contractor to obtain encroachment permit for new driveway approach located in R.O.W. if applicable.

   FIRE DEPT. TURNAROUND NOTE @ CUL-DE-SAC: prior to permit issuance, Contractor to provide manufacturer's specs/detail sheets for base design to demonstrate pavers can support fire truck traffic of 75,000 lbs. per **Santa Clara County Fire Dept. standard details/specification D-1.**

   provide approved emergency access **Knox** padlock, or key switch as required, at all vehicle gates per **Santa Clara County Fire Dept. Standard Details and Specs G-1.** locks, if provided, shall be fire dept. approved prior to installation, typ., u.n.o.

   a. existing driveway/roadway easement: at end of the project repair existing asphalt at driveway easement (from Happy Acres Rd.) to remain during construction, typical, u.n.o. verify existing roadway is per **2022 CFC, sec. 4014.2, 503, & 506,** with a **min. unobstructed width** of **12'-0"**, and a **two-foot unpaved shoulder (or 14'-0" wide with curbs/ret. walls), vertical clearance of 13'-6"**, **a min. circulating turning radius of 36 ft. outside and 23 ft. inside, & max. slope of 15%**, typ., u.n.o.

   b. motor court/driveway: new interlocking concrete pavers (as selected by Landscape Architect) o/ 1" sand over o/ properly compacted 6" **aggregate base**, o/ properly pre-moistened subgrade per the soils report, by **GeoForensics, Inc.**, typical, u.n.o.

   c. crushed gravel driveway at motor court: during construction area is to be used for construction access, a stabilized construction entrance, staging, material storage, etc., and at the end of project install new crushed gravel o/ 1" sand over GravelPavers o/properly compacted 10" (min.) **aggregate base**, o/ properly pre-moistened subgrade per the soils report, by **GeoForensics, Inc.**, typical, u.n.o.

   d. new vehicle gates/emergency access new sliding steel frame vehicle gates w/design per Landscape Architect. install under-ground wiring in conduit in driveway as required for electronic opener, remote video camera/intercom system, typical. the vehicle gate installation shall conform with **Santa Clara County Fire Protection District Standard Details & Specs,** and when open shall not obstruct any portion of the **required 14'-0" min. width & min. vertical clearance of 13'-6"** for **emergency vehicle access**, per **2022 CFC sec. 503 & sec. 506**, typical, u.n.o.

2. **Grading/Cut/Fill, General Surface Drainage, and Erosion Control**

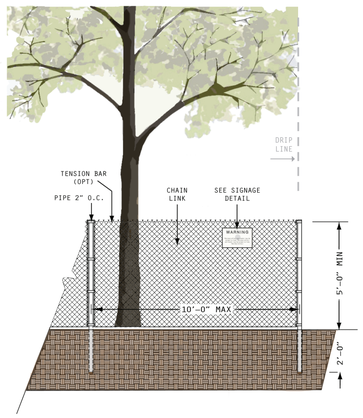
   verify/remove any existing underground drainage lines.

   Soils Engineers and Civil Engineers are to be notified at least 48 hours prior to start of any grading activities.

   Grading Quantities see Civil drawings by Lea & Braze Engineering, Inc. for more info.

   a. grading/cut & fill: all grading, excavation, cut/fill, and re-compaction shall comply with **Town of Los Gatos Parks & Public Works Dept.** standards, & performed in strict accordance with recommendations in soils report, typical, u.n.o. all grading shall be performed in such a manner as to be in compliance with standards established by the local **Bay Area Air Quality Management District** for airborne particulates.

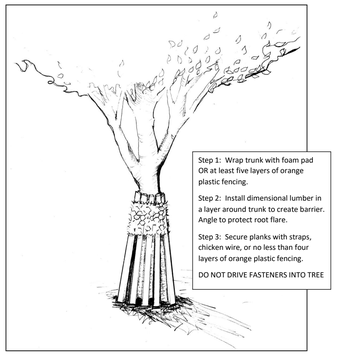
   b. surface drainage: provide rough & finish grading for 5% min. slope (2% min. at paved areas) for 10' away from all new construction (min.



TREE PROTECTION FENCE DETAIL
ELEVATION VIEW

TPZ III – Alternative Method of Tree Protection

May be used to protect trunk from damage during construction activities when standard TPZ fencing is not practical. Install prior to construction activities. Adjust to allow for diameter growth as needed.



Step 1: Wrap trunk with foam pad OR at least five layers of orange plastic fencing.

Step 2: Install dimensional lumber in a layer around trunk to create barrier. Angle to protect root flare.

Step 3: Secure planks with straps, chicken wire, or no less than four layers of orange plastic fencing.

DO NOT DRIVE FASTENERS INTO TREE

CERTIFICATE OF APPRAISAL

I, Busara Rea Firestone, CERTIFY to the best of my knowledge and belief:

1. That the statements of fact contained in this plant appraisal are true and correct.
2. That the appraisal analysis, opinions, and conclusion are limited only by the reported assumption and limiting conditions, and that they are my personal, unbiased professional analysis, opinions, and conclusions.
3. That I have no present or prospective interest in the plants that are the subject of this appraisal, and that I have no personal interest or bias with respect to the parties involved.
4. That my compensation is not contingent upon a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
5. That my analysis, opinions, and conclusions are developed, and this appraisal has been prepared, in conformity with the *Guide for Plant Appraisal (10th edition, 2000)* authored by the Council of Tree and Landscape Appraisers.
6. That the methods found in this appraisal are based on a request to determine the value of the plants considering reasonable factors of plant appraisal.
7. That my appraisal is based on the information known to me at this time. If more information is disclosed, I may have further opinions.

Signed,

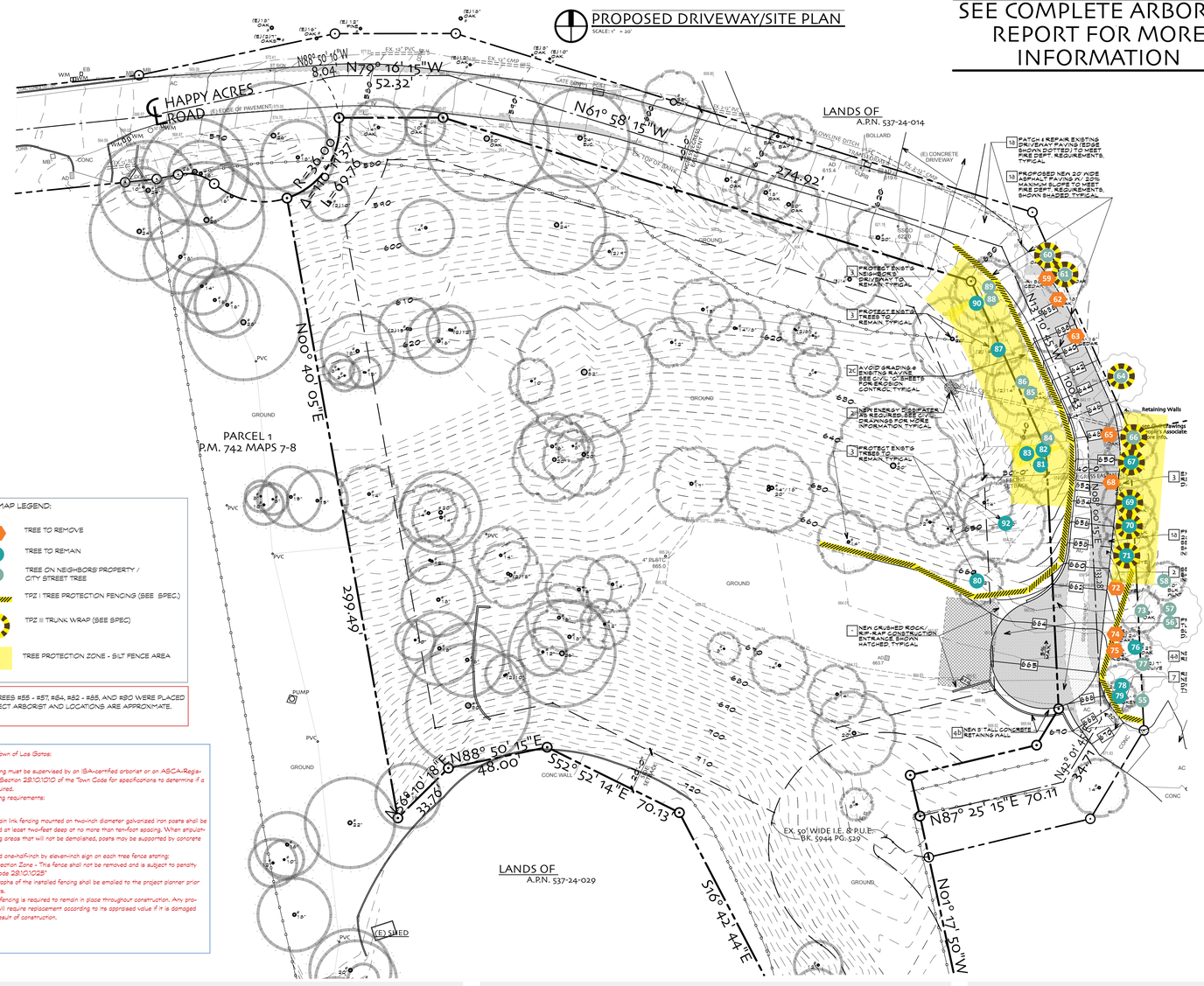
Busara (Bo) Firestone
ISA Certified Arborist WE-#8525A
09/29/2022

BO FIRESTONE TREES & GARDENS
BUSARA FIRESTONE, CERTIFIED ARBORIST #WE-8525A
2150 LACEY DR., MILPITAS, CA 95035
E: BUSARA@BOFIRESTONE.COM C: (408) 497-7158
WWW.BOFIRESTONE.COM

ASCA/RCA Registered Consulting Arborist®

PROPOSED DRIVEWAY/SITE PLAN

SCALE: 1" = 30'



SEE COMPLETE ARBORIST REPORT FOR MORE INFORMATION

TPZ MAP LEGEND:

- TREE TO REMOVE
- TREE TO REMAIN
- TREE ON NEIGHBORS' PROPERTY / CITY STREET TREE
- TPZ I TREE PROTECTION FENCING (SEE SPEC.)
- TPZ II TRUNK WRAP (SEE SPEC)
- TREE PROTECTION ZONE - SILT FENCE AREA

NOTE: TREES #55 - #57, #54, #52 - #55, AND #80 WERE PLACED BY PROJECT ARBORIST AND LOCATIONS ARE APPROXIMATE.

As required by the Town of Los Gatos:

Pruning or root pruning must be supervised by an ISA-certified arborist or an ASCA-Registered Arborist. See Section 23R\1\010 of the Town Code for specifications to determine if a pruning permit is required.
Tree protection fencing requirements:

1. Six-foot high chain link fencing mounted on two-inch diameter galvanized iron posts shall be driven into the ground at least two-feet deep at no more than ten-foot spacing. When stipulated, for existing paving areas that will not be demolished, posts may be supported by concrete bases.
2. Posted eight and one-half-inch by eleven-inch sign on each tree fence stating: "Warning - Tree Protection Zone - This fence shall not be removed and is subject to penalty according to Town Code 23R\1\025"
3. Labeled photographs of the installed fencing shall be emailed to the project planner prior to issuance of permits.
4. Tree protection fencing is required to remain in place throughout construction. Any protected tree on-site will require replacement according to its appraised value if it is damaged beyond repair as a result of construction.

APPRAISAL SUMMARY - 200 Happy Acres, Los Gatos

TOOFAN PROPERTY, 9/29/2022

SEE GLOSSARY FOR DEFINITION OF TERMS

Tag Number	Common Name	Botanical Name	DBH (inches)	Diameter of combined trunk area	Basic Reproduction Cost	Depreciating Factors: Condition	Condition Rating	Functional Limitations	External Limitations	Appraisal Result
55	Olive	*Olea europaea*	(3) 4	12	$1,749	FAIR	50%	60%	90%	$470
56	California Bay	*Umbellularia californica*	(2) 8, (2) 6, 4, 2.5	34.5	$13,627	FAIR	50%	60%	70%	$2,860
57	Pecan	*Carya illinoensis*	est. 12	12	$5,141	FAIR	50%	70%	70%	$1,260
58	Black Walnut	*Juglans nigra*	est. 9	9	$2,313	POOR	25%	70%	50%	$200
59	Incense Cedar	*Calocedrus decurrens*	24	24	$20,564	POOR	25%	70%	30%	$1,080
60	Coast Live Oak	*Quercus agrifolia*	15, 13	28	$14,280	FAIR	50%	70%	90%	$4,500
61	Incense Cedar	*Calocedrus decurrens*	est. 20	20	$14,280	POOR	25%	70%	30%	$750
62	Coast Live Oak	*Quercus agrifolia*	14.5, 10	24.5	$11,567	FAIR	50%	70%	90%	$3,640
63	Incense Cedar	*Calocedrus decurrens*	13	13	$6,033	VERY POOR	10%	70%	30%	$130
64	Black Walnut	*Juglans nigra*	est. 11	11	$3,456	POOR	25%	70%	50%	$300
65	Coast Live Oak	*Quercus agrifolia*	16.5	16.5	$9,719	FAIR	50%	70%	90%	$3,060
66	Coast Live Oak	*Quercus agrifolia*	22	22	$17,279	FAIR	50%	70%	90%	$5,400
67	Coast Live Oak	*Quercus agrifolia*	14	14	$6,997	FAIR	50%	70%	90%	$2,200
68	Coast Live Oak	*Quercus agrifolia*	18, 15.5	33.5	$20,564	FAIR	50%	70%	90%	$6,500
69	Coast Live Oak	*Quercus agrifolia*	13	13	$6,033	FAIR	50%	70%	90%	$1,900
70	Black Walnut	*Juglans nigra*	21	21	$12,595	VERY POOR	10%	70%	50%	$440
71	California Buckeye	*Aesculus californica*	9, 8	17	$5,141	FAIR	50%	70%	70%	$1,260
72	California Buckeye	*Aesculus californica*	6	6	$1,285	VERY POOR	10%	70%	70%	$60
73	Coast Live Oak	*Quercus agrifolia*	est. 13	13	$6,033	FAIR	50%	70%	90%	$1,900
74	Coast Live Oak	*Quercus agrifolia*	17, (2) 14	45	$24,134	FAIR	50%	60%	90%	$6,500
75	California Buckeye	*Aesculus californica*	9, 5	14	$3,570	FAIR	50%	60%	70%	$750
76	Coast Live Oak	*Quercus agrifolia*	13	13	$6,033	FAIR	50%	60%	90%	$1,630
77	Olive	*Olea europaea*	est. 6, (2) 4	14	$2,285	FAIR	50%	60%	90%	$620
78	Coast Live Oak	*Quercus agrifolia*	(2) 11.5	23	$9,139	FAIR	50%	50%	90%	$2,060
79	California Buckeye	*Aesculus californica*	8, 7, 6.5	21.5	$5,141	FAIR	50%	50%	70%	$900
80	Coast Live Oak	*Quercus agrifolia*	16	16	$9,139	GOOD	75%	70%	90%	$4,320
81	California Buckeye	*Aesculus californica*	(4) 4, 3.5, (2) 2.5	24.5	$2,892	FAIR	50%	70%	70%	$710
82	California Buckeye	*Aesculus californica*	5, 4	9	$1,285	FAIR	50%	70%	90%	$400
83	Black Walnut	*Juglans nigra*	6	6	$1,028	POOR	25%	70%	50%	$90
84	Toyon	*Heteromeles arbutifolia*	7, (2) 2	11	$4,154	GOOD	75%	70%	70%	$1,530
85	California Buckeye	*Aesculus californica*	(2) 5, 4.5, 3.5	18	$2,892	FAIR	50%	70%	70%	$710
86	Valley Oak	*Quercus lobata*	21, 15	36	$40,941	FAIR	50%	70%	40%	$5,700
87	Coast Live Oak	*Quercus agrifolia*	5.5	5.5	$1,080	FAIR	50%	70%	90%	$340
88	Valley Oak	*Quercus lobata*	18.5, 17.5	36	$37,852	FAIR	50%	70%	40%	$5,300
89	Valley Oak	*Quercus lobata*	22, 17, 11	50	$54,507	FAIR	50%	70%	40%	$7,600
90	California Bay	*Umbellularia californica*	9	9	$4,906	FAIR	50%	70%	70%	$1,200
92	Black Walnut	*Juglans nigra*	18.5	18.50	$9,775	FAIR	50%	70%	50%	$1,710

BUSARA FIRESTONE
ISA-CERTIFIED ARBORIST
#WE-8525A

TREE INVENTORY - 200 Happy Acres Rd, Los Gatos

TOOFAN PROPERTY, 9/29/2022

Tag #	Common Name	Botanical Name	DBH (inches)	multi. DBH (inches)	Height (feet)	Spread (feet)	Tree Status	TREE IMPACT ASSESSMENT: Condition	Age	Species Tolerance	TPZ mult. Factor	Ideal TPZ Radius (ft)	Impact Level	Suitability Rating	Remove / Preserve	Appraisal Result
84	Toyon	*Heteromeles arbutifolia*	7, (2) 2	8	20	20	Protected	GOOD	MATURE	MODERATE	12	8	LOW	HIGH	PRESERVE	$1,530
85	California Buckeye	*Aesculus californica*	(2) 5, 4.5, 3.5	9	20	15	Protected	FAIR	MATURE	HIGH	8	6	LOW	MODERATE	PRESERVE	$710
86	Valley Oak	*Quercus lobata*	21, 15	26	65	60	Large Protected	FAIR	OVERMATURE	MODERATE	15	33	LOW	MODERATE	PRESERVE	$5,700
87	Coast Live Oak	*Quercus agrifolia*	5.5	5.5	30	15	Protected	FAIR	YOUNG	HIGH	6	3	LOW	MODERATE	PRESERVE	$340
88	Valley Oak	*Quercus lobata*	18.5, 17.5	25	64	40	Large Protected	FAIR	OVERMATURE	MODERATE	15	31	LOW	MODERATE	PRESERVE	$5,300
89	Valley Oak	*Quercus lobata*	22, 17, 11	30	65	55	Large Protected	FAIR	OVERMATURE	MODERATE	15	38	LOW	MODERATE	PRESERVE	$7,600
90	California Bay	*Umbellularia californica*	9	9	50	20	Protected	FAIR	MATURE	MODERATE	12	9	LOW	MODERATE	PRESERVE	$1,200
92	Black Walnut	*Juglans nigra*	18.5	18.5	45	35	Nut Tree (exempt)	FAIR	MATURE	LOW	15	23	LOW	MODERATE	PRESERVE	$1,710
KEY:	#	**Neighboring / City Street Tree**													**TOTAL APPRAISED VALUE**	**$79,980**
		proposed removal													**VALUE OF TREES TO REMOVE**	**$21,720**

SEE GLOSSARY FOR DEFINITIONS OF TERMS

Numbering note: There is no tree tagged #91.

Busara Firestone
ISA-Certified Arborist
#WE-8525A

TREE INVENTORY - 200 Happy Acres Rd, Los Gatos

TOOFAN PROPERTY, 9/29/2022

Tag #	Common Name	Botanical Name	DBH (inches)	multi. DBH (inches)	Height (feet)	Spread (feet)	Tree Status	TREE IMPACT ASSESSMENT: Condition	Age	Species Tolerance	TPZ mult. Factor	Ideal TPZ Radius (ft)	Impact Level	Suitability Rating	Remove / Preserve	Appraisal Result
55	Olive	*Olea europaea*	(3) 4	7	25	25	Protected	FAIR	MATURE	MODERATE	12	7	LOW	MODERATE	PRESERVE	$470
56	California Bay	*Umbellularia californica*	(2) 8, (2) 6, 4, 2.5	15	40	30	Protected	FAIR	MATURE	MODERATE	12	15	LOW	MODERATE	PRESERVE	$2,860
57	Pecan	*Carya illinoensis*	est. 12	12	50	25	Nut Tree (exempt)	FAIR	MATURE	MODERATE	12	12	LOW	MODERATE	PRESERVE	$1,260
58	Black Walnut	*Juglans nigra*	est. 9	9	45	20	Nut Tree (exempt)	POOR	MATURE	LOW	15	11	LOW	MODERATE	PRESERVE	$200
59	Incense Cedar	*Calocedrus decurrens*	24	24	75	25	Protected	POOR	MATURE	MODERATE	12	24	SEVERE	LOW	REMOVE (X)	$1,080
60	Coast Live Oak	*Quercus agrifolia*	15, 13	20	55	25	Protected	FAIR	MATURE	HIGH	8	13	MODERATE	MODERATE	PRESERVE	$4,500
61	Incense Cedar	*Calocedrus decurrens*	est. 20	20	70	15	Protected	POOR	MATURE	MODERATE	12	20	MODERATE	LOW	PRESERVE	$750
62	Coast Live Oak	*Quercus agrifolia*	14.5, 10	18	55	35	Protected	FAIR	MATURE	HIGH	8	12	SEVERE	LOW	REMOVE (X)	$3,640
63	Incense Cedar	*Calocedrus decurrens*	13	13	65	20	Protected	VERY POOR	MATURE	MODERATE	12	13	SEVERE	LOW	REMOVE (X)	$130
64	Black Walnut	*Juglans nigra*	est. 11	11	55	15	Nut Tree	POOR	MATURE	LOW	15	14	MODERATE	LOW	PRESERVE	$300
65	Coast Live Oak	*Quercus agrifolia*	16.5	16.5	65	30	Protected	FAIR	MATURE	HIGH	8	11	SEVERE	LOW	REMOVE (X)	$3,060
66	Coast Live Oak	*Quercus agrifolia*	22	22	65	35	Protected	FAIR	MATURE	HIGH	8	15	MODERATE	LOW	PRESERVE	$5,400
67	Coast Live Oak	*Quercus agrifolia*	14	14	55	35	Protected	FAIR	MATURE	HIGH	8	9	MODERATE	MODERATE	PRESERVE	$2,200
68	Coast Live Oak	*Quercus agrifolia*	18, 15.5	24	65	45	Large Protected	FAIR	MATURE	HIGH	8	16	SEVERE	LOW	REMOVE (X)	$6,500
69	Coast Live Oak	*Quercus agrifolia*	13	13	60	25	Protected	FAIR	MATURE	HIGH	8	9	MODERATE	MODERATE	PRESERVE	$1,900
70	Black Walnut	*Juglans nigra*	21	21	70	35	Nut Tree	VERY POOR	MATURE	HIGH	15	26	MODERATE	LOW	PRESERVE	$440
71	California Buckeye	*Aesculus californica*	9, 8	12	25	30	Protected	FAIR	MATURE	HIGH	8	8	MODERATE	MODERATE	PRESERVE	$1,260
72	California Buckeye	*Aesculus californica*	6	6	20	10	Protected	VERY POOR	MATURE	HIGH	8	4	SEVERE	LOW	REMOVE (X)	$60
73	Coast Live Oak	*Quercus agrifolia*	est. 13	13	30	10	Protected	FAIR	MATURE	HIGH	8	9	MODERATE	MODERATE	PRESERVE	$1,900
74	Coast Live Oak	*Quercus agrifolia*	17, (2) 14	26	50	40	Large Protected	FAIR	MATURE	HIGH	8	17	SEVERE	LOW	REMOVE (X)	$6,500
75	California Buckeye	*Aesculus californica*	9, 5	10	25	25	Protected	FAIR	MATURE	HIGH	8	7	SEVERE	LOW	REMOVE (X)	$750
76	Coast Live Oak	*Quercus agrifolia*	13	13	50	20	Protected	FAIR	MATURE	HIGH	8	9	MODERATE	MODERATE	PRESERVE	$1,630
77	Olive	*Olea europaea*	est. 6, (2) 4	8	30	20	Fruit Tree (exempt)	FAIR	MATURE	MODERATE	12	8	LOW	MODERATE	PRESERVE	$620
78	Coast Live Oak	*Quercus agrifolia*	(2) 11.5	16	30	35	Protected	FAIR	MATURE	HIGH	8	11	MODERATE	MODERATE	PRESERVE	$2,060
79	California Buckeye	*Aesculus californica*	8, 7, 6.5	12	30	30	Protected	FAIR	MATURE	HIGH	8	8	MODERATE	MODERATE	PRESERVE	$900
80	Coast Live Oak	*Quercus agrifolia*	16	16	35	30	Protected	GOOD	MATURE	HIGH	8	11	LOW	HIGH	PRESERVE	$4,320
81	California Buckeye	*Aesculus californica*	(4) 4, 3.5, (2) 2.5	9	20	20	Protected	FAIR	MATURE	HIGH	8	6	LOW	MODERATE	PRESERVE	$710
82	California Buckeye	*Aesculus californica*	5, 4	6	20	15	Protected	FAIR	MATURE	HIGH	8	4	LOW	MODERATE	PRESERVE	$400
83	Black Walnut	*Juglans nigra*	6	6	25	10	Nut Tree (exempt)	POOR	YOUNG	LOW	12	6	LOW	LOW	PRESERVE	$90

Busara Firestone
ISA-Certified Arborist
#WE-8525A

TREE PROTECTION ZONE MAP

200 HAPPY ACRES, LOS GATOS, CA

DATE:
09/29/22

TPZ ELEMENTS DRAWN:
B. FIRESTONE
ISA-CERTIFIED ARBORIST
#WE-8525A

BASE MAP: SITE PLAN D.1 by NOEL CROSS ARCHITECTS (09/22/2022)

ARBORIST REPORT
pg. 23

ARCHITECT

Noel Cross+Architects
1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN DRIVEWAY

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	24 OCTOBER 2021 RESPONSE TO STAFF TECH REVIEW 16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A1.1
Of date printed:	7/16/24

Mathematic DBH/DSH: diameter of multitrunked tree, mathematically derived from the combined cross-sectional area of all trunks.

EXTERNAL LIMITATIONS: Subjective rating based on limitations to the growth and utility of the tree imposed by factors beyond the site that are out of the control of the property owner. (Example: laws or diseases prevalent in the area, climate change)

FUNCTIONAL LIMITATIONS: Subjective rating based on limitations to the growth and utility of the tree imposed by the site. (Example: small planting site, overhead utilities)

HEIGHT: Height of tree from ground to top of canopy.

IDEAL TPZ RADIUS: Minimum recommended tree protection radius to ensure healthy, sound trees. Based on species tolerance, age, and size (total combined stem area). Compromising the radius in a specific area may be acceptable as per arborist approval.

IMPACT: Anticipated impact to an individual tree including……

SEVERE - In direct conflict, removal necessary if plans proceed (distance to root cuts/fill within 3X DBH or root loss of > 30% anticipated).

HIGH – Work planned within 6X DBH and/or anticipated root loss of 20% – 30%. Redesign to reduce impact should be explored and may be required by municipal reviewer. Retainment may be possible with monitoring or alternative building methods. Health and structure may worsen **even if** conditions for retainment are met.

MODERATE - Ideal TPZ encroached upon in limited areas. No work or very limited work within 6X TPZ. Anticipated root loss of 10% - 25%. Special building guidelines may be provided by Project Arborist. Although some symptoms of stress are possible, tree is not likely to decline due to construction related activities.

LOW - Anticipated root loss of less than 10%. Minor or no encroachment on ideal TPZ. Longevity uncompromised with standard protection.

VERY LOW - Ideal TPZ well exceeded. Potential impact only by ingress/egress. Anticipated root loss of 0% - 5%. Longevity uncompromised.

NONE - No anticipated impact to roots, soil environment, or above-ground parts

SPREAD: Distance between farthest branch tips.

SUITABILITY ASSESSMENT: An individual tree's suitability for preservation considering impacts, condition, maturity, species tolerance, site characteristics, and species desirability. (HIGH, MODERATE, or LOW)

TOLERANCE: General species tolerance to construction (GOOD, MODERATE, or POOR) as given in Managing Trees During Construction, Second Edition, by International Society of Arboriculture

TREE STATUS: "Protected "- when related to zoning approvals, most species, when the DBH is four inches or more (includes dead trees and fallen trees). "Large protected trees" – any Oak, California Buckeye, or Pacific Madrone, when the trunk DBH is 24-inches or more. Any other species when the DBH is 48 inches or more. Fruit trees exempt unless over 18". I used the mathematically derived diameter of total cross-sectional area of multi-trunk trees to determine if they qualified.

Sources

Fite, Kelby, and E. Thomas Smiley. *Managing trees during construction*, second edition. Champaign, IL: International Society of Arboriculture, 2016. Print.

ISA. *Guide for Plant Appraisal*, tenth edition, second printing. Savoy, IL: International Society of Arboriculture, 2019. Print.

ISA. *Guide for Plant Appraisal*, tenth edition. Savoy, IL: International Society of Arboriculture, 2019. Print.

ISA. Species Classification and Group Assignment, 2004 Western Chapter Regional Supplement. Western Chapter ISA.

Smiley, E. Thomas, Nelda Matheny, and Sharon Lilly. *Best Management Practices: Tree Risk Assessment*. International Society of Arboriculture, 2011. Print.

DURING CONSTRUCTION

Special Tree Protection Measures - Trees #60, #61, #64, #66, #67, #69, #70, #71, #78, and #79:

Driveway Work – within 6X DBH of Trees: When excavating within 15 feet of this tree, use hand tools. Leave roots encountered undisturbed if possible. Excavation depth for installation of new landscape materials within 15 feet of trees should be no more than six inches (6"). Minimize compaction of soil under paving. If roots must be cut, please see section titled "Root Pruning." No paving materials or any excavation or grading within three (3) feet of trunks.

Root Pruning

Roots often extend farther beyond the tree than people realize. Even outside of the fencing protecting the critical root zone, there are roots that are important to the wellbeing of the tree. Builders may notice torn roots after digging or trenching. If this happens, exposed ends should be cut cleanly.

However, the best way to cut roots is to cut them cleanly *before* they are torn by excavating equipment. This way, roots may be exposed by gentle excavation methods and then cut selectively. Alternatively, a tool specifically designed to cut roots may be used to cut through the soil on the tree-side of the excavation line prior to digging so that roots are not torn. **Any root pruning must be supervised by the project arborist**.

Irrigation

Water moderately and highly impacted trees during the construction phase (in this case, all retained trees). As a rule of thumb, provide one to two inches per month. Water slowly so that it penetrates 18 inches into the soil, to the depth of tree roots. For native oaks (#7 and #8), do not water during the warm dry season (June – September) as this activates oak root fungus. Instead, make sure that the soil is sufficiently insulated with mulch (where possible). Remember that unsevered tree roots typically extend three to five times the distance of the canopy.

Arborist Supervision

According to Town Code 29.10.1025, "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." The project arborist will also be needed 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."

POST-CONSTRUCTION

Ensure any mitigation measures to ensure long-term survival including but not limited to…

Continued Tree Care

Provide adequate and appropriate Irrigation. As a rule of thumb, provide 1- 2 inches of water per month. Water slowly so that it penetrates 18 inches into the soil, to the depth of the tree roots. Native oaks usually should not be provided supplemental water during the warm, dry season (June – September) as this activates oak root fungus. Therefore, native oaks should only be watered October – May when rain has been scarce.

Mulch insulates the soil, reduces weeds, reduces compaction, and promotes myriad benefits to soil life and tree health. Apply four inches of wood chips (or other mulch) to the surface of the soil around trees, extending at least to the dripline when possible. Take care not to pile mulch against the trunk.

Do not fertilize unless a specific nutrient deficiency has been identified and a specific plan prescribed by the project arborist (or a consulting arborist).

Post-Construction Monitoring

Monitor trees for changes in condition. Check trees at least once per month for the first year post-construction. Expert monitoring should be done at least every 6 months or if trees show signs of stress. Signs stress include unseasonably sparse canopy, leaf drop, early fall color, browning of needles, and shoot die-back. Stressed trees are also more vulnerable to certain disease and pest infestations. Call the Project Arborist, or a consulting arborist if these, or other concerning changes occur in tree health.

Conclusion

The proposed home building project at 200 Happy Acres Dr. appeared to be a valuable upgrade to the property. If the recommendations and protection measures in this report are followed, all trees identified for preservation would be expected to survive.

If any of the property owners, project team, or City reviewers have questions on this report, or require Project Arborist supervision or technical support, please do not hesitate to contact me at (408) 497-7158 or busara@bofirestone.com.

Signed,

Busara (Bo) Firestone | ISA Certified Arborist WE-#8525A | ASCA Registered Consulting Arborist RCA #758 | ISA Qualified Tree Risk Assessor | ASCA Tree and Plant Appraisal Qualification | Member – American Society of Consulting Arborists | Wildlife-trained Arborist

Glossary

AGE: Relative to tree lifespan; "Young" <1/3; "Mature" 1/3 - 2/3; "Overmature" >2/3

APPRAISAL RESULT: Replacement cost of a tree calculated using Trunk Formula Technique as described in Guide of Plant Appraisal, 10th Edition, Second Printing published 2019 by International Society of Arboriculture.

BASIC REPRODUCTION COST: Cost of replacing the cross-sectional area of the original tree by purchasing new trees. Based on unit tree replacement costs as given in the in "Species Classification and Group Assignment" published by The Western Chapter of the international Society of Arboriculture, 2004. All replacements costs based on largest commonly available tree size as 24" box with an average cost of $172.73.

CONDITION-Ground based visual assessment of structural and physiological well-being:

"Excellent" = 81 - 100%; Good health and structure with significant size, location, or quality.

"Good" = 61-80%; Normal vigor, full canopy, no observable significant structural defects, many years of service life remaining.

"Fair" = 41-60%; Reduced vigor, significant structural defect(s), and/or other significant signs of stress

"Poor" = 21- 40%; In potentially irreversible decline, structure and aesthetics severely compromised

"Very Poor" = 6-20%; Nearly dead, or high risk of failure, negative contribution to the landscape

"Dead/Unstable" = 0 - 5%; No live canopy/buds or failure imminent

DBH / DSH: Diameter at 4.5' above grade.

desirability, all factored into an individual tree's suitability rating, as summarized on the Inventory. Suitability of trees to be retained was rated as "high," "moderate," or "low."

Tree Protection Recommendations

PRE-CONSTRUCTION

Prune Branches – Tree #71 (Buckeye)

I recommend that each tree that is designated to remain shall be pruned as necessary to provide clearance for development, while maintaining a natural appearance. All tree pruning (or removal) activities shall be performed prior to the beginning of any demolition or development.

Pruning should be specified in writing adhering to ANSI A300 Pruning Standards and performed according to Best Management Practices endorsed by the International Society of Arboriculture. **Pruning must be performed by a licensed and insured tree contractor and supervised by an ISA-certified arborist or an ASCA-Registered Consulting Arborist.**

Establish Tree Protection Zones (TPZ)

TPZ Locations:

Tree protection zones (TPZ) are areas of a temporary fenced tree enclosures that restrict activity during construction. They are established and inspected prior to the start of work. **No soil disturbance is permitted unless approved and supervised by the Project Arborist**. The recommended tree protection zones (TPZ) were shown on the attached map. See attachment titled "TPZ 1" for a diagram of generic, best-practice TPZ fencing specifications. If TPZ fencing is

not practical due to proximity to work, TPZ trunk wrap may be approved instead (see attached specification).

Please see attached "TPZ Map" for recommended fencing locations. Recommended protection for trees is as follows:

- **Trees #55, #73, #76 - #79 (public and neighboring trees on north side of road):** These trees may be protected as a group with a contiguous line of fencing placed between the project and the woodland. Establish standard TPZ fencing radius to 10 feet, or the greatest extent possible as limited by the proposed work. Allow the minimum necessary workspace around the proposed roadway. A radius of two feet (2') is permissible where the roadway is very close (< 5') from the work.

- **Trees #60, #61, #64, #66, #67, #69 - #71 (public and neighboring trees on north side of road):** For these trees closest to driveway work, installation of fencing would not be practical. Alternatively, I recommend TPZ III Trunk Wrap. In addition, I recommend silt fencing for Trees #66, #67, #69, #70 and #71, to act as a barrier from the fill soil used to raise the grade for the upper driveway.

- **Trees #80 – #90 and #92 (trees on the south side of the road):** These trees may be protected as a group with a contiguous line of fencing placed between the road and the Toofan property. Establish standard TPZ fencing radius to 15 feet, or the greatest extent possible as limited by the proposed work. Leave the minimum necessary workspace for construction of the proposed roadway. In addition, I recommend silt fencing for Trees #81 - #90 to prevent soil from the work upslope piling against the trunks.

Los Gatos Tree Protection Fencing Requirements:

Sec. 29.10.1005 - Protection of trees during construction.

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 ten-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 dripline 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 two-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 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 eight and one-half-inch by eleven-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." Text on the signs should be in both English and Spanish.

All persons, shall comply with the following precautions:

1. Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, 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 dripline shall not be altered in any way so as to increase the encroachment of the construction.

2. Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.

3. Prohibit disposal or depositing of oil, gasoline, chemicals, or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.

4. Prohibit the attachment of wires, signs, or ropes to any protected tree.

5. Design utility services and irrigation lines to be located outside of the dripline when feasible.

6. 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.

7. 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.

Prevent Root Damage

Anywhere workers and vehicles will be traveling over bare ground within fifteen feet of a tree's dripline should have material applied over the ground to disperse the load. This may be done by applying a six to 12-inch layer of wood chip mulch to the area. As an alternative method that would not require mulch removal, the contractor could place plywood (>3/4-inch-thick) or road mats over a four-inch layer of mulch. Mulch should be spread manually so as not cause compaction or damage.

The Town of Los Gatos strongly encourages replacement with native species. Most fruit and nut trees, palm trees, or "nuisance" species (see section 29.10.0970(2) of the Town Code) are generally not considered suitable replacement trees. Replacement requirements in the Hillsides shall comply with the Hillside Development Standards and Guidelines Appendix A and section 29.10.0987 Special Provisions—Hillsides.

If a tree or trees cannot be reasonably replanted on the subject property, the Town of Los Gatos may approve a full or partial in-lieu fee payment. Where the payment of in-lieu fees is approved, permits will not be issued until all in-lieu fees are paid in full. In-lieu fees would be determined the Planning Director.

Appraised values for all trees were calculated using the "*Trunk Formula Method*" as outlined in the *Council of Tree and landscape Appraisers-Guide for Plant Appraisal, 10th Edition* and supplemented with the *Western Chapter ISA- Species Classification and Group Assignment Regional Supplement.*

Impacts on Protected Trees

TREE INVENTORY

This tree preservation plan includes an attached inventory of all "protected trees" with canopies within 30 feet of the work area, which included the path of ingress and egress.

A protected tree in Los Gatos for zoning approvals included most species measuring four inches (4") or greater in diameter at standard height (DSH) as defined by Town Code, Division 2. Certain native trees, such as oaks over 24 inches in diameter qualify as "large protected" trees. All other species over 48 inches qualify as "large protected." Fruit are nut trees less than 18 inches are exempt from protection, as are certain nuisance species (refer to Town Code Sec. 29.10.0960).

The Tree inventory table in this report includes each tree's number (as shown on the TPZ map and as tagged in the field), measurements, condition, level of impact (due to proximity to work), tolerance to construction, and overall suitability for retainment. The inventory also includes the appraised cost of each tree using the Trunk Formula Technique.

IMPACTS OF PROPOSED WORK

It was my understanding that the existing private road would be expanded to comply to Fire Department requirements. The road material would be asphalt.

All trees adjacent to the north side of the road would be expected to sustain root loss and soil disturbance. Anticipated impacts of the trees around the site ranged from "low" to "moderate" depending on the resilience of the tree and its proximity to the work. Anticipated impacts to trees to be preserved were as follows:

Trees #55 - #58 and #77: These neighboring trees would incur a "low" impact (no more than 10% root loss) from the proposed excavation work for the roadway.

Trees #60, #61, #64, #66, #67, #69, #70, #71, #73, #76, #78, and #79: These trees closest to the proposed work would be expected to sustain a moderate (acceptable) impact of 10 – 25% roots lost from the proposed excavation of the driveway and foundation. **Please see "Special Tree Protection Measures" section of this report for guidelines on working within 6x DBH of Trees #60, #61, #64, #66, #67, #69, #70, #71, #78, and #79. Please see "Prune Branches" section of this report for guidelines on clearance pruning for tree #71.**

Trees #80 – #92: These trees located on the south side of the road would be anticipated to sustain a "low" impact (no more than 10% root loss) from the proposed roadway work.

The anticipated impact of construction due to proximity to work was summarized using a rating system on the Tree Inventory (see Glossary for definitions of ratings). General species tolerance to construction, and condition of the trees (health, form, and structure), was also noted on the Inventory. These factors, as well as tree age, soil characteristics, and species

Deposit, Replacement Requirements

ARBORIST DEPOSIT

An arborist deposit account must be set up with the Planning Department to fund the peer review of this report. Following completion of the project, any funds remaining in the account will be refunded.

REQUESTED TREE REMOVALS

Eight (8) trees were requested for removal, Trees #59, #62 - #64, #68, #72, #74, and #75. These trees were all within the footprint of the proposed road or would have their lower trunks buried by fill soil and would be "severely impacted" by the project with 30% - 100% anticipated root loss. It was my understanding after discussion with the architect, that widening the road in the direction of the ravine was not a feasible option. It was my opinion that this project preserved the greatest number of trees possible, given the engineering and site constraints.

Using the "trunk formula technique," I calculated the total replacement cost of all eight (8) trees to be removed at $21,720. Please see Tree Inventory Table and Appraisal Summary for appraisal results of individual trees.

REPLACEMENT TREES

Trees approved for removal as part of this project must be replaced prior to final inspection by the Building Division. The Town Planning Department will determine the number and size of required replacement trees. **Any tree on site protected by Town Code would require replacement according to its appraised value if it is damaged beyond repair as a result of grading, excavation or construction activities**

Requirements for Planning Applications (published 7/1/17 by the Community Development Department).

Per the Town's Tree Regulations, the inventory, pruning specifications and tree protection zone details outlined in this report are to be copied onto a plan sheet to become part of the final plan set, then to serve as the project's Tree Preservation Plan, and titled as such.

LIMITATIONS

Trees assessed were limited to the scope of work identified in the assignment. I have estimated the trunk diameters of trees with barriers to access or visibility (such as those on neighboring parcels or behind debris). Although general structure and health were assessed, formal Tree Risk Assessments were not conducted unless specified. Disease diagnostic work was not conducted unless specified. All assessments were the result of ground-based, visual inspections. No excavation or aerial inspections were performed. Recommendations beyond those related to the proposed construction were not within the scope of work.

My tree impact and preservation assessments were based on information provided in the plans I have reviewed to date, and conversations with the involved parties. I assumed that the guidelines and setbacks recommended in this report would be followed. Assessments, conclusions, and opinions shared in this report are not a guarantee of any specific outcome. If additional information (such as engineering or landscape plans) is provided for my review, these assessments would be subject to change.

Introduction

ARBORIST ASSIGNMENT

On September 14, 2022, at the request of the project architect Noel Cross, I visited the project site at 200 Happy Acres Dr., Los Gatos. I agreed to write an Arborist Report for their building project. After my visit to the site and review of the site plans, it was my understanding that the existing private road would be expanded to comply with Fire Department requirements. The assessments in this report were based off review of the "Existing Site Plan" and "Proposed Driveway/Site Plan D.1" (dated 09/22/22 by Noel Cross Architects).

I identified 37 Protected trees for inclusion in this report. The site was a residential community surrounded by a natural woodland dominated by coast live oak (*Quercus agrifolia*) and native bay laurel (*Umbellularia californica*). Native understory plants were California buckeye (*Aesculus californica*), and toyon (*Heteromeles arbutifolia*). There were also mature black walnut trees (*Juglans nigra*), incense cedars (*Calocedrus decurrens*), and olives (*Olea europaea*) that had been introduced to the site. **Eight (8) trees were requested for removal.**

Observations and recommendations made in this report relate to the tree protection and preservation mandates outlined in the Town of Los Gatos *Tree Protection Requirements for Planning Applications* (published 7/1/17 by the Community Development Department). As required, I have included appraisals for all protected trees potentially affected by development activities.

USES OF THIS REPORT

This report was written to serve as a resource for the property owner, designer, and builder. I have provided instructions for protecting trees before, during, and after construction. You will also find information on Town requirements as outlined in Town of Los Gatos *Tree Protection*

Contents

Introduction 1
ARBORIST ASSIGNMENT 1
USES OF THIS REPORT 1
LIMITATIONS 2
Deposit, Replacement Requirements 3
ARBORIST DEPOSIT 3
REQUESTED TREE REMOVALS 3
REPLACEMENT TREES 3
Impacts on Protected Trees 4
TREE INVENTORY 4
IMPACTS OF PROPOSED WORK 5
Tree Protection Recommendations 6
PRE-CONSTRUCTION 6
Prune Branches – Tree #71 (Buckeye) 6
Establish Tree Protection Zones (TPZ) 6
TPZ Locations: 6
Los Gatos Tree Protection Fencing Requirements: 7
Prevent Root Damage 9
DURING CONSTRUCTION 10
Special Tree Protection Measures - Trees #60, #61, #64, #66, #67, #69, #70, #71, #78, and #79: 10
Root Pruning 10
Irrigation 10
Arborist Supervision 11

POST-CONSTRUCTION 11
Continued Tree Care 11
Post-Construction Monitoring 12
Conclusion 12
Glossary 13
Sources 16
TPZ FENCING DIAGRAM 17
TPZ III TRUNK WRAP 18
CERTIFICATE OF APPRAISAL 19
TREE INVENTORY (TABLE) 20
APPRAISAL SUMMARY 22
TREE PROTECTION ZONE MAP 23

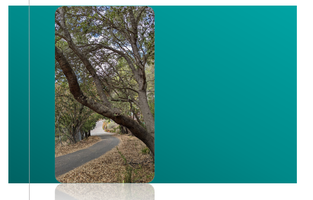
ARBORIST REPORT

TREE PROTECTION - BUILDING PROJECT

SEPTEMBER 29, 2022

PREPARED FOR:
FRED AND FERESHTEH TOOFAN

PROJECT ADDRESS:
200 HAPPY ACRES DR. • LOS GATOS • 95030



BO FIRESTONE TREES & GARDENS
BUSARA FIRESTONE, CERTIFIED ARBORIST #WE-8525A
35285 MIDDLE VAL, BRUTSCHY, CA 95005
E: BUSARA@BOFIRESTONE.COM C: (408) 497-7158
WWW.BOFIRESTONE.COM

ASCA RCA Registered Consulting Arborist®

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

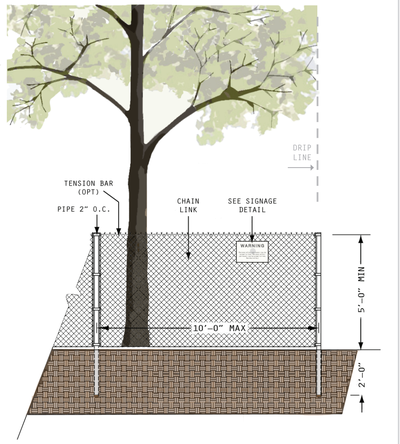
G ! this symbol call attention to a "green" material or construction process. the general contractor and subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A1.2
Of date printed:	7/16/24



TREE PROTECTION FENCE DETAIL
ELEVATION VIEW

CERTIFICATE OF APPRAISAL

I, Busara Rea Firestone, CERTIFY to the best of my knowledge and belief:

1. That the statements of fact contained in this plant appraisal are true and correct.
2. That the appraisal analysis, opinions, and conclusion are limited only by the reported assumption and limiting conditions, and that they are my personal, unbiased professional analysis, opinions, and conclusions.
3. That I have no present or prospective interest in the plants that are the subject of this appraisal, and that I have no personal interest or bias with respect to the parties involved.
4. That my compensation is not contingent upon a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.
5. That my analysis, opinions, and conclusions are developed, and this appraisal has been prepared, in conformity with the *Guide for Plant Appraisal (10th edition, 2000)* authored by the Council of Tree and Landscape Appraisers.
6. That the methods found in this appraisal are based on a request to determine the value of the plants considering reasonable factors of plant appraisal.
7. That my appraisal is based on the information known to me at this time. If more information is disclosed, I may have further opinions.

Signed,

Busara (Bo) Firestone

ISA Certified Arborist #WE-8525A

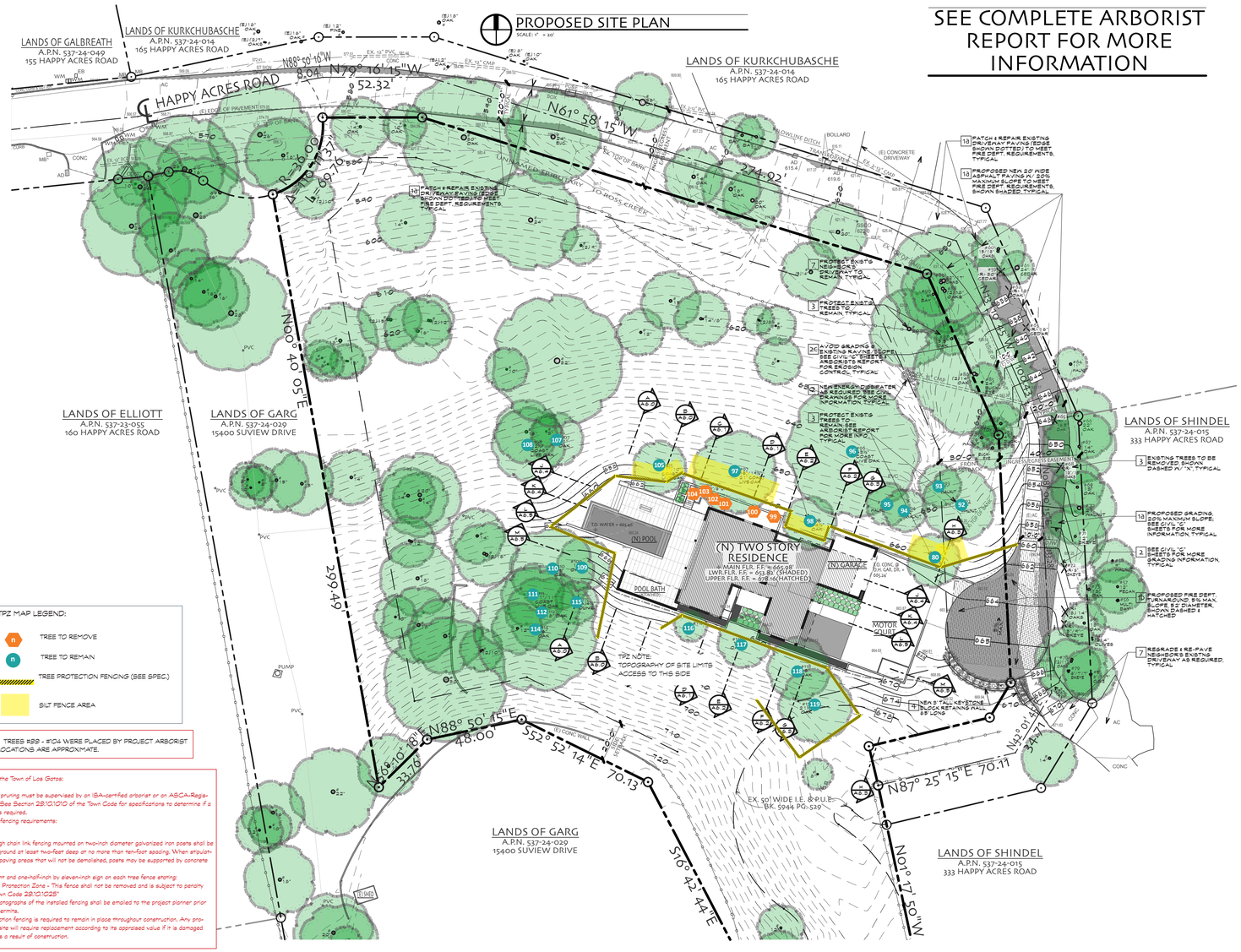
01//2024

BO FIRESTONE TREES & GARDENS
BUSARA FIRESTONE, CERTIFIED ARBORIST #WE-8525A
2150 LACEY DR., MILPITAS, CA 95035
E: BUSARA@BOFIRESTONE.COM P: (408) 497-7158
WWW.BOFIRESTONE.COM

ASCA RCA #758
Registered Consulting Arborist®

PROPOSED SITE PLAN

SCALE: 1" = 20'



TPZ MAP LEGEND:

- TREE TO REMOVE
- TREE TO REMAIN
- TREE PROTECTION FENCING (SEE SPEC.)
- SILT FENCE AREA

NOTE: TREES #89 - #104 WERE PLACED BY PROJECT ARBORIST AND LOCATIONS ARE APPROXIMATE.

As required by the Town of Los Gatos:

Pruning or root pruning must be supervised by an ISA-certified arborist or an ASCA-Registered Arborist. See Section 29.10.1010 of the Town Code for specifications to determine if a pruning permit is required.
Tree protection fencing requirements:

1. Six-foot high chain link fencing mounted on two-inch diameter galvanized iron posts shall be driven into the ground at least two-feet deep at no more than ten-foot spacing. When stipulated, for existing paving areas that will not be demolished, posts may be supported by concrete base.
2. Posted eight and one-half-inch by eleven-inch sign on each tree fence stating: "Warning - Tree Protection Zone - This fence shall not be removed and is subject to penalty according to Town Code 29.10.1025"
3. Labeled photographs of the installed fencing shall be emailed to the project planner prior to issuance of permits.
4. Tree protection fencing is required to remain in place throughout construction. Any protected tree on-site will require replacement according to its appraised value if it is damaged beyond repair as a result of construction.

APPRAISAL SUMMARY - 200 Happy Acres, Los Gatos

pg. 22

TOOFAN PROPERTY 1/26/2024

SEE GLOSSARY FOR DEFINITION OF TERMS

Tag Number	Common Name	Botanical Name	DBH (inches)	Diameter of combined trunk area	Basic Reproduction Cost	Depreciating Factors: Condition	Condition Rating	Functional Limitations	External Limitations	Appraisal Result
80	Coast Live Oak	*Quercus agrifolia*	15	15	$11,626	EXCELLENT	90%	80%	100%	$8,400
92	Black Walnut	*Juglans nigra*	18.5	18.5	$14,148	POOR	25%	60%	100%	$2,120
93	Black Walnut	*Juglans nigra*	11	11	$5,002	POOR	25%	60%	100%	$750
94	Black Walnut	*Juglans nigra*	10	10	$4,134	POOR	25%	60%	100%	$620
95	Black Walnut	*Juglans nigra*	14	14	$8,102	POOR	25%	60%	100%	$1,220
96	Coast Live Oak	*Quercus agrifolia*	43.5	43.5	$97,775	GOOD	75%	80%	100%	$58,700
97	Coast Live Oak	*Quercus agrifolia*	21, 19.5, 15	32	$52,911	GOOD	75%	80%	100%	$31,700
98	Coast Live Oak	*Quercus agrifolia*	14.5	14.5	$10,864	FAIR	50%	80%	100%	$4,350
99	Coast Live Oak	*Quercus agrifolia*	14	14	$10,128	FAIR	50%	80%	100%	$4,050
100	Coast Live Oak	*Quercus agrifolia*	12.5	12.5	$8,074	FAIR	50%	80%	100%	$3,230
101	Coast Live Oak	*Quercus agrifolia*	10	10	$5,167	FAIR	50%	80%	100%	$2,070
102	Coast Live Oak	*Quercus agrifolia*	10	10	$5,167	FAIR	50%	80%	100%	$2,070
103	Coast Live Oak	*Quercus agrifolia*	8, 6	10	$5,167	FAIR	50%	80%	100%	$2,070
104	Coast Live Oak	*Quercus agrifolia*	10	10	$5,167	FAIR	50%	80%	100%	$2,070
105	Coast Live Oak	*Quercus agrifolia*	11, 10	15	$11,626	GOOD	75%	80%	100%	$7,000
107	Coast Live Oak	*Quercus agrifolia*	21	21	$22,787	FAIR	50%	80%	100%	$9,100
108	Coast Live Oak	*Quercus agrifolia*	22.5	22.5	$26,158	FAIR	50%	80%	100%	$10,500
109	Coast Live Oak	*Quercus agrifolia*	13	13	$8,732	GOOD	75%	80%	100%	$5,200
110	Coast Live Oak	*Quercus agrifolia*	19	19	$18,653	GOOD	75%	80%	100%	$11,200
111	Coast Live Oak	*Quercus agrifolia*	(2) 11	16	$13,228	FAIR	50%	80%	100%	$5,300
112	Coast Live Oak	*Quercus agrifolia*	18	18	$16,741	FAIR	50%	80%	100%	$6,700
114	Coast Live Oak	*Quercus agrifolia*	26	26	$34,930	GOOD	75%	80%	100%	$21,000
115	Olive	*Olea europaea*	(5) 4.5	9	$4,185	FAIR	50%	80%	100%	$1,670
116	Coast Live Oak	*Quercus agrifolia*	9	9	$4,185	FAIR	50%	80%	100%	$1,670
117	Coast Live Oak	*Quercus agrifolia*	16	16	$13,228	GOOD	75%	70%	100%	$6,900
118	Coast Live Oak	*Quercus agrifolia*	15	15	$11,626	GOOD	75%	80%	100%	$7,000
119	Coast Live Oak	*Quercus agrifolia*	21.5	21.5	$23,885	GOOD	75%	70%	100%	$12,500

BUSARA FIRESTONE
ISA-CERTIFIED ARBORIST
#WE-8525A

TREE INVENTORY - 200 Happy Acres Rd, Los Gatos

pg. 21

TOOFAN PROPERTY, rev. 1/26/2024

Numbering note: There is no tree tagged #106 or #113.

Tag #	Common Name	Botanical Name	DBH (inches)	math. DBH (inches)	Height (feet)	Spread (feet)	Tree Status	TREE IMPACT ASSESSMENT: Condition	Age	Species Tolerance	TPZ mult. Factor	Ideal TPZ Radius (ft)	Impact Level	Suitability Rating	Remove / Preserve	Appraisal Result
80	Coast Live Oak	*Quercus agrifolia*	15	15	25	25	Protected	EXCELLENT	MATURE	HIGH	8	10	MODERATE	HIGH	PRESERVE	$8,400
92	Black Walnut	*Juglans nigra*	18.5	18.5	45	35	Nut Tree (exempt)	POOR	MATURE	LOW	15	23	VERY LOW	LOW	PRESERVE	$2,120
93	Black Walnut	*Juglans nigra*	11	11	40	20	Nut Tree (exempt)	POOR	MATURE	LOW	15	14	VERY LOW	LOW	PRESERVE	$750
94	Black Walnut	*Juglans nigra*	10	10	35	20	Nut Tree (exempt)	POOR	MATURE	LOW	15	13	VERY LOW	LOW	PRESERVE	$620
95	Black Walnut	*Juglans nigra*	14	14	35	20	Nut Tree (exempt)	POOR	MATURE	LOW	15	18	VERY LOW	LOW	PRESERVE	$1,220
96	Coast Live Oak	*Quercus agrifolia*	43.5	43.5	60	65	Large Protected	GOOD	MATURE	HIGH	8	29	VERY LOW	HIGH	PRESERVE	$58,700
97	Coast Live Oak	*Quercus agrifolia*	21, 19.5, 15	32	50	40	Large Protected	GOOD	MATURE	HIGH	8	21	MODERATE	HIGH	PRESERVE	$31,700
98	Coast Live Oak	*Quercus agrifolia*	14.5	14.5	30	25	Protected	FAIR	MATURE	HIGH	8	10	MODERATE	MODERATE	PRESERVE	$4,350
99	Coast Live Oak	*Quercus agrifolia*	14	14	30	20	Protected	FAIR	MATURE	HIGH	8	9	SEVERE	LOW	REMOVE (X)	$4,050
100	Coast Live Oak	*Quercus agrifolia*	12.5	12.5	30	20	Protected	FAIR	MATURE	HIGH	8	8	SEVERE	LOW	REMOVE (X)	$3,230
101	Coast Live Oak	*Quercus agrifolia*	10	10	30	15	Protected	FAIR	MATURE	HIGH	8	7	SEVERE	LOW	REMOVE (X)	$2,070
102	Coast Live Oak	*Quercus agrifolia*	10	10	30	15	Protected	FAIR	MATURE	HIGH	8	7	SEVERE	LOW	REMOVE (X)	$2,070
103	Coast Live Oak	*Quercus agrifolia*	8, 6	10	30	20	Protected	FAIR	MATURE	HIGH	8	7	SEVERE	LOW	REMOVE (X)	$2,070
104	Coast Live Oak	*Quercus agrifolia*	10	10	30	15	Protected	FAIR	MATURE	HIGH	8	7	SEVERE	LOW	REMOVE (X)	$2,070
105	Coast Live Oak	*Quercus agrifolia*	11, 10	15	30	25	Protected	GOOD	MATURE	HIGH	8	10	MODERATE	HIGH	PRESERVE	$7,000
107	Coast Live Oak	*Quercus agrifolia*	21	21	30	25	Protected	FAIR	MATURE	HIGH	8	14	VERY LOW	MODERATE	PRESERVE	$9,100
108	Coast Live Oak	*Quercus agrifolia*	22.5	22.5	35	35	Protected	FAIR	MATURE	HIGH	8	15	VERY LOW	MODERATE	PRESERVE	$10,500
109	Coast Live Oak	*Quercus agrifolia*	13	13	30	25	Protected	GOOD	MATURE	HIGH	8	9	LOW	HIGH	PRESERVE	$5,200
110	Coast Live Oak	*Quercus agrifolia*	19	19	45	40	Protected	GOOD	MATURE	HIGH	8	13	LOW	HIGH	PRESERVE	$11,200
111	Coast Live Oak	*Quercus agrifolia*	(2) 11	16	45	30	Protected	FAIR	MATURE	HIGH	8	11	VERY LOW	MODERATE	PRESERVE	$5,300
112	Coast Live Oak	*Quercus agrifolia*	18	18	50	35	Protected	FAIR	MATURE	HIGH	8	12	VERY LOW	MODERATE	PRESERVE	$6,700
114	Coast Live Oak	*Quercus agrifolia*	26	26	60	60	Large Protected	GOOD	MATURE	HIGH	8	17	VERY LOW	HIGH	PRESERVE	$21,000
115	Olive	*Olea europaea*	(5) 4.5	9	25	20	Fruit Tree (exempt)	FAIR	MATURE	MODERATE	12	9	VERY LOW	MODERATE	PRESERVE	$1,670
116	Coast Live Oak	*Quercus agrifolia*	9	9	25	15	Protected	FAIR	MATURE	HIGH	8	6	MODERATE	MODERATE	PRESERVE	$1,670
117	Coast Live Oak	*Quercus agrifolia*	16	16	25	25	Protected	GOOD	MATURE	HIGH	8	11	MODERATE	MODERATE	PRESERVE	$6,900
118	Coast Live Oak	*Quercus agrifolia*	15	15	35	30	Protected	GOOD	MATURE	HIGH	8	10	MODERATE	HIGH	PRESERVE	$7,000
119	Coast Live Oak	*Quercus agrifolia*	21.5	21.5	35	35	Protected	GOOD	MATURE	HIGH	8	14	LOW	HIGH	PRESERVE	$12,500
															TOTAL APPRAISED VALUE	$229,160
KEY:	Removal Request														VALUE OF TREES TO REMOVE	$15,560

SEE GLOSSARY FOR DEIFNITIONS OF TERMS

Busara Firestone
ISA-Certified Arborist
#WE-8525A

SEE COMPLETE ARBORIST REPORT FOR MORE INFORMATION

TREE PROTECTION ZONE MAP

200 HAPPY ACRES, LOS GATOS, CA

DATE:
01/26/24

TPZ ELEMENTS DRAWN:
B. FIRESTONE
ISA-CERTIFIED ARBORIST
#WE-8525A

BASE MAP: SITE PLAN A1.0
by NOEL CROSS ARCHITECTS
(01/18/2024)

ARBORIST REPORT
pg. 23

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G!

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A1.3
Of date printed:	7/16/24

Sources

Fite, Kelby, and E. Thomas Smiley. *Managing trees during construction*, second edition. Champaign, IL: International Society of Arboriculture, 2016. Print.

ISA. *Guide for Plant Appraisal*, tenth edition, second printing. Savoy, IL: International Society of Arboriculture, 2019. Print.

ISA. *Guide for Plant Appraisal*, tenth edition. Savoy, IL: International Society of Arboriculture, 2019. Print.

ISA. Species Classification and Group Assignment, 2004 Western Chapter Regional Supplement. Western Chapter ISA.

Smiley, E. Thomas, Nelda Matheny, and Sharon Lilly. *Best Management Practices: Tree Risk Assessment*. International Society of Arboriculture, 2011. Print.

Conclusion

The proposed home building project at 200 Happy Acres appeared to be a valuable upgrade to the property. If the recommendations and protection measures in this report are followed, all trees identified for preservation would be expected to survive.

If any of the property owners, project team, or Town reviewers have questions on this report, or require Project Arborist supervision or technical support, please do not hesitate to contact me at (408) 497-7158 or busara@bofirestone.com.

Signed,

Busara (Bo) Firestone | ISA Certified Arborist WE-8852SA | ASCA Registered Consulting Arborist RCA #758 | ISA Qualified Tree Risk Assessor | ASCA Tree and Plant Appraisal Qualification | Member – American Society of Consulting Arborists | Wildlife-trained Arborist

6. 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.

7. 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.

Prevent Root Damage

Anywhere workers and vehicles will be traveling over bare ground within fifteen feet of a tree's dripline should have material applied over the ground to disperse the load. This may be done by applying a six to 12-inch layer of wood chip mulch to the area. As an alternative method that would not require mulch removal, the contractor could place plywood (>3/4-inch-thick) or road mats over a four-inch layer of mulch. Mulch should be spread manually so as not cause compaction or damage.

DURING CONSTRUCTION

Special Tree Protection Measures - Trees #80, #97, #109, and #117

1) **Guidelines for installation of retaining wall footings adjacent to Tree #80 (15" oak):** *Use hand tools only* when excavating within 10 feet of the trunk of this tree within the top 36 inches of soil depth. If roots of one-inch diameter or larger must be cut, they should be cut cleanly with a sharp, clean sawblade perpendicular to the direction of growth (a "square cut"). The cut should be made where the bark of the root is undamaged and intact. **Root pruning should be supervised by the Project Arborist.**

2) **Hardscaping (driveway, patio) – Trees #80 and #117 (oaks):** When excavating within 10 feet of these trees, use hand tools. Leave roots encountered undisturbed if possible.

- **Tree #98 (14.5" coast live oak):** This tree would be anticipated to sustain "moderate" impacts (10% - 25% root loss) from the proposed excavation for the home foundation, basement, and lightwell.

- **Tree #105 (15" coast live oak):** This tree would be anticipated to sustain "moderate" impacts (10% - 25% root loss) from the proposed excavation for the back yard landscaping improvements.

- **Tree #109 (13" coast live oak):** This tree would be anticipated to sustain "low" impacts (less than 10% root loss) from the proposed excavation for the back yard retaining wall.

- **Trees #110 (19" coast live oak):** This tree would incur a "low" impact (no more than 10% root loss) from the proposed excavation work for the rear retaining wall.

- **Trees #116 – #118 (15" coast live oaks):** These trees would be anticipated to sustain "moderate" impacts (10% - 25% root loss) from the proposed excavation for the basement, South terrace, and retaining wall walkway. **Please see "Special Tree Protection Measures" section of this report for guidelines on working within 6x DBH of these trees.**

- **Tree #119 (21.5" oak):** This tree would be anticipated to sustain "low" impacts of less than 10% root loss from the proposed retaining wall and walkway behind the house.

The anticipated impact of construction due to proximity to work was summarized using a rating system on the Tree Inventory (see Glossary for definitions of ratings). General species tolerance to construction, and condition of the trees (health, form, and structure), was also noted on the Inventory. These factors, as well as tree age, soil characteristics, and species desirability, all factored into an individual tree's suitability rating, as summarized on the Inventory. Suitability of trees to be retained was rated as "high," "moderate," or "low."

Requirements for Planning Applications (published 7/1/17 by the Community Development Department).

Per the Town's Tree Regulations, the inventory, pruning specifications and tree protection zone details outlined in this report are to be copied onto a plan sheet to become part of the final plan set, then to serve as the project's Tree Preservation Plan, and titled as such.

LIMITATIONS

Trees assessed were limited to the scope of work identified in the assignment. I have estimated the trunk diameters of trees with barriers to access or visibility (such as those on neighboring parcels or behind debris). Although general structure and health were assessed, formal Tree Risk Assessments were not conducted unless specified. Disease diagnostic work was not conducted unless specified. All assessments were the result of ground-based, visual inspections. No excavation or aerial inspections were performed. Recommendations beyond those related to the proposed construction were not within the scope of work.

My tree impact and preservation assessments were based on information provided in the plans I have reviewed to date, and conversations with the involved parties. I assumed that the guidelines and setbacks recommended in this report would be followed. Assessments, conclusions, and opinions shared in this report are not a guarantee of any specific outcome. If additional information (such as engineering or landscape plans) is provided for my review, these assessments would be subject to change.

Contents

Introduction 1
ARBORIST ASSIGNMENT 1
USES OF THIS REPORT 1
LIMITATIONS 2
Deposit, Replacement Requirements 3
ARBORIST DEPOSIT 3
REQUESTED TREE REMOVALS 3
REPLACEMENT TREES 3
Impacts on Protected Trees 4
TREE INVENTORY 4
IMPACTS OF PROPOSED WORK 5
Tree Protection Recommendations 7
PRE-CONSTRUCTION 7
Prune Branches – Tree #80 (oak) 7
Establish Tree Protection Zones (TPZ) 7
TPZ Locations: 7
Los Gatos Tree Protection Fencing Requirements: 8
Prevent Root Damage 10
DURING CONSTRUCTION 10
Special Tree Protection Measures - Trees #80, #97, #109, and #117 10
Root Pruning 12
Irrigation 12
Arborist Supervision 12
POST-CONSTRUCTION 13
Continued Tree Care 13
Post-Construction Monitoring 13
Conclusion 14
Glossary 15
Sources 18
TPZ-I FENCING DIAGRAM 19
CERTIFICATE OF APPRAISAL 20
TREE INVENTORY (TABLE) 21
APPRAISAL SUMMARY 22
TREE PROTECTION ZONE MAP 23

Glossary

AGE: Relative to tree lifespan; "Young" =1/3; "Mature" 1/3 - 2/3; "Overmature" >2/3

APPRAISAL RESULT: Replacement cost of a tree calculated using Trunk Formula Technique as described in Guide of Plant Appraisal, 10th Edition, Second Printing published 2019 by International Society of Arboriculture.

BASIC REPRODUCTION COST: Cost of replacing the cross-sectional area of the original tree by purchasing new trees. Based on unit tree replacement costs as given in the in "Species Classification and Group Assignment" published by The Western Chapter of the International Society of Arboriculture, 2004. All replacements costs based on largest commonly available tree size as 24" box with an average cost of $172.73.

CONDITION-Ground based visual assessment of structural and physiological well-being:

"Excellent" = 81 - 100%; Good health and structure with significant size, location, or quality.

"Good" = 61-80%; Normal vigor, full canopy, no observable significant structural defects, many years of service life remaining.

"Fair" = 41-60%; Reduced vigor, significant structural defect(s), and/or other significant signs of stress

"Poor" = 21- 40%; In potentially irreversible decline, structure and aesthetics severely compromised

"Very Poor" = 6-20%; Nearly dead, or high risk of failure, negative contribution to the landscape

"Dead/Unstable" = 0 - 5%; No live canopy/buds or failure imminent

DBH / DSH: Diameter at 4.5' above grade.

Excavation depth for installation of new landscape materials within eight feet (8') of trees should be no more than four inches (4") into existing soil grade. Do not compact native soil under paving materials. If roots must be cut, please see section titled "Root Pruning." No paving materials or any excavation or grading within four feet (4') of trunks.

3) **Excavation guidelines for installation of new foundation and basement – Trees #97 and #117 (oaks):** *Use hand tools only* when excavating within 15 feet of the trunk of tree #97 and within 10 feet of Tree #117 within the top 36 inches of soil depth. If roots of one-inch diameter or larger must be cut, they should be cut cleanly with a sharp, clean sawblade perpendicular to the direction of growth (a "square cut"). The cut should be made where the bark of the root is undamaged and intact. **Root pruning should be supervised by the Project Arborist.**

4) **Cut to grade and retaining wall adjacent to Trees #116 – #118 (oaks)**

a. **I recommend an exploratory trench to be dug by hand, before excavation begins, to expose roots along the tree-side of the excavation.** This way, roots may be exposed by gentle excavation methods and then cut selectively. Alternatively, a tool specifically designed to cut roots may be used to cut through the soil on the tree side of the excavation line prior to digging so that roots are not torn. Root pruning should be supervised by the Project Arborist.

b. Roots to be exposed along the sides of the retaining wall inside 6X DBH of Protected trees:
   - Within 5 feet of the trunk of Tree #116
   - Within 8 feet of Trees #117 and #118

c. Cuts across the root plate within a distance of less than 3X the diameter of the tree can lead to tree decline and instability. Therefore, the cut to grade/ location of the retaining wall should be a minimum of three feet (3') from trunk face to prevent instability of tree from the damage of structural roots.

Tree Protection Recommendations

PRE-CONSTRUCTION

Prune Branches – Tree #80 (oak)

I recommend that each tree that is designated to remain shall be pruned as necessary to provide clearance for development, while maintaining a natural appearance. All tree pruning (or removal) activities shall be performed prior to the beginning of any demolition or development.

Pruning should be specified in writing adhering to ANSI A300 Pruning Standards and performed according to Best Management Practices endorsed by the International Society of Arboriculture. **Pruning must be performed by a licensed and insured tree contractor and supervised by an ISA-certified arborist or an ASCA-Registered Consulting Arborist.**

Establish Tree Protection Zones (TPZ)

TPZ Locations:

Tree protection zones (TPZ) are areas of a temporary fenced tree enclosures that restrict activity during construction. They are established and inspected prior to the start of work. **No soil disturbance is permitted unless approved and supervised by the Project Arborist**. The recommended tree protection zones (TPZ) were shown on the attached map. See attachment titled "TPZ-I" for a diagram of generic, best-practice TPZ fencing specifications. If TPZ fencing is not practical due to proximity to work, TPZ trunk wrap may be approved instead (see attached specification if applicable).

Please see attached "TPZ Map" for recommended fencing locations. Recommended protection for trees is as follows:

Deposit, Replacement Requirements

ARBORIST DEPOSIT

An arborist deposit account must be set up with the Planning Department to fund the peer review of this report. Following completion of the project, any funds remaining in the account will be refunded.

REQUESTED TREE REMOVALS

Six coast live oak trees were requested for removal, Trees #99 - #104. Using the "trunk formula technique", I calculated the total replacement cost of all six trees to be removed at $15,560. **Justification is as follows:**

- **Trees #99 - #104 (coast live oak):** The trunks of these trees were within the footprint of the proposed lightwell and would need to be removed for the project to be built as planned. Using the "Trunk Formula Technique," I calculated the following appraisal results: #99: $4,050, #100: $3,230, and #101 - #104: 2,070.

REPLACEMENT TREES

Trees approved for removal as part of this project must be replaced prior to final inspection by the Building Division. The Town Planning Department will determine the number and size of required replacement trees. **Any tree on site protected by Town Code Nearly dead, or high risk of failure, negative contribution to the landscape replacement according to its appraised value if it is damaged beyond repair as a result of grading, excavation or construction activities.**

The Town of Los Gatos strongly encourages replacement with native species. Most fruit and nut trees, palm trees, or "nuisance" species (see section 29.10.0970(2) off the Town Code) are

Introduction

ARBORIST ASSIGNMENT

In September 2023, at the request of the property owner, I agreed to write an Arborist Report for their building project at 200 Happy Acres. After my team's visit to the site and review of the site plans, it was my understanding that the empty parcel would be developed with a new two-story home with basement and attached garage. The site was to be landscaped with new plants, a pool, and driveway with motor court. The assessments in this report were based off review of the following:

- Site Plan A1.0 (by Noel Cross Architects, dated 01/18/2024)

I identified 27 Protected trees for inclusion in this report. The site was within a natural woodland of native oak trees. Most appeared to be mature and in fair to good condition. **Six (6) coast live oak (Quercus agrifolia) were requested for removal.**

Observations and recommendations made in this report relate to the tree protection and preservation mandates outlined in the Town of Los Gatos *Tree Protection Requirements for Planning Applications* (published 7/1/17 by the Community Development Department). As required, I have included appraisals for all protected trees potentially affected by development activities.

USES OF THIS REPORT

This report was written to serve as a resource for the property owner, designer, and builder. I have provided instructions for protecting trees before, during, and after construction. You will also find information on Town requirements as outlined in Town of Los Gatos *Tree Protection*

Mathematic DBH/DSH: diameter of multitrunked tree, mathematically derived from the combined cross-sectional area of all trunks.

EXTERNAL LIMITATIONS: Subjective rating based on limitations to the growth and utility of the tree imposed by factors beyond the site that are out of the control of the property owner. (Example: laws or diseases prevalent in the area, climate change)

FUNCTIONAL LIMITATIONS: Subjective rating based on limitations to the growth and utility of the tree imposed by the site. (Example: small planting site, overhead utilities)

HEIGHT: Height of tree from ground to top of canopy.

IDEAL TPZ RADIUS: Minimum recommended tree protection radius to ensure healthy, sound trees. Based on species tolerance, age, and size (total combined stem area). Compromising the radius in a specific area may be acceptable as per arborist approval.

IMPACT: Anticipated impact to an individual tree including.....

SEVERE - In direct conflict, removal necessary if plans proceed (distance to root cuts/fill within 3X DBH or root loss of > 30% anticipated).

HIGH – Work planned within 6X DBH and/or anticipated root loss of 20% – 30%. Redesign to reduce impact should be explored and may be required by municipal reviewer. Retainment may be possible with monitoring or alternative building methods. Health and structure may worsen **even if** conditions for retainment are met.

MODERATE - Ideal TPZ encroached upon in limited areas. No work or very limited work within 6X TPZ. Anticipated root loss of 10% - 25%. Special building guidelines may be provided by Project Arborist. Although some symptoms of stress are possible, tree is not likely to decline due to construction related activities.

LOW - Anticipated root loss of less than 10%. Minor or no encroachment on ideal TPZ. Longevity uncompromised with standard protection.

VERY LOW - Ideal TPZ well exceeded. Potential impact only by ingress/egress. Anticipated root loss of 0% - 5%. Longevity uncompromised.

Root Pruning

Roots often extend farther beyond the tree than people realize. Even outside of the fencing protecting the critical root zone, there are roots that are important to the wellbeing of the tree. Builders may notice torn roots after digging or trenching. If this happens, exposed ends should be cut cleanly.

However, the best way to cut roots is to cut them cleanly *before* they are torn by excavating equipment. This way, roots may be exposed by gentle excavation methods and then cut selectively. Alternatively, a tool specifically designed to cut roots may be used to cut through the soil on the tree-side of the excavation line prior to digging so that roots are not torn. **Any root pruning must be supervised by the project arborist**.

Irrigation

Water moderately and highly impacted trees during the construction phase (in this case, all retained trees). As a rule of thumb, provide one to two inches per month. Water slowly so that it penetrates 18 inches into the soil, to the depth of tree roots. For native oaks (#7 and #8), do not water during the warm dry season (June – September) as this activates oak root fungus. Instead, make sure that the soil is sufficiently insulated with mulch (where possible). Remember that unsevered tree roots typically extend three to five times the distance of the canopy.

Arborist Supervision

According to Town Code 29.10.1025, "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." The project arborist will also be needed 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."

- **Trees #80, #92 - #96, and #105, #107 - #112, #114, and #115 (oaks, walnuts, and olive):** These trees may be protected as a group with a contiguous line of fencing placed between the project and the woodland. Establish standard TPZ fencing radius to 20 feet, or the greatest extent possible as limited by the proposed work. Leave the minimum necessary workspace around the proposed structure (usually 4' - 5'). In addition, I recommend silt fencing for Trees #80, #97, #98, and #105 to prevent soil from the work upslope piling against the trunks.

- **Trees #116 - #119 (oaks):** These trees may be protected as a group with a contiguous line of fencing placed between the project and the woodland. Establish standard TPZ fencing radius to 15 feet, or the greatest extent possible as limited by the proposed work.

Los Gatos Tree Protection Fencing Requirements:

Sec. 29.10.1005 - Protection of trees during construction.

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 ten-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 dripline 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 two-inch wooden boards bound securely on the outside. Caution shall be used to avoid damaging any bark or branches.

generally not considered suitable replacement trees. Replacement requirements in the Hillsides shall comply with the Hillside Development Standards and Guidelines Appendix A and section 29.10.0987 Special Provisions—Hillsides.

If a tree or trees cannot be reasonably replanted on the subject property, the Town of Los Gatos may approve a full or partial in-lieu fee payment. Where the payment of in-lieu fees is approved, permits will not be issued until all in-lieu fees are paid in full. In-lieu fees would be determined the Planning Director.

Appraised values for all trees were calculated using the "*Trunk Formula Method*" as outlined in the *Council of Tree and landscape Appraisers-Guide for Plant Appraisal, 10th Edition* and supplemented with the *Western Chapter ISA- Species Classification and Group Assignment Regional Supplement*.

Impacts on Protected Trees

TREE INVENTORY

This tree preservation plan includes an attached inventory of all "protected trees" with canopies within 30 feet of the work area, which included the path of ingress and egress.

A protected tree in Los Gatos for zoning approvals included most species measuring four inches (4") or greater in diameter at breast height (DBH) as defined by Town Code, Division 2. Certain native trees, such as oaks over 24 inches in diameter qualify as "large protected" trees. All other species over 48 inches qualify as "large protected." Fruit are not trees less than 18 inches are exempt from protection, as are certain nuisance species (refer to Town Code Sec. 29.10.0960).

The Tree Inventory table in this report includes each tree's number (as shown on the TPZ map and as tagged in the field), measurements, condition, level of impact (due to proximity to

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 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 eight and one-half-inch by eleven-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." Text on the signs should be in both English and Spanish.

All persons, shall comply with the following precautions:

1. Prior to the commencement of construction, install the fence at the dripline, or tree protection zone (TPZ) when specified in an approved arborist report, 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 dripline shall not be altered in any way so as to increase the encroachment of the construction.

2. Prohibit all construction activities within the TPZ, including but not limited to: excavation, grading, drainage and leveling within the dripline of the tree unless approved by the Director.

3. Prohibit disposal or depositing of oil, gasoline, chemicals or other harmful materials within the dripline of or in drainage channels, swales or areas that may lead to the dripline of a protected tree.

4. Prohibit the attachment of wires, signs or ropes to any protected tree.

5. Design utility services and irrigation lines to be located outside of the dripline when feasible.

work), tolerance to construction, and overall suitability for retainment. The inventory also includes the appraised cost of each tree using the Trunk Formula Technique.

IMPACTS OF PROPOSED WORK

It was my understanding that the empty parcel would be developed with a new two-story home with basement and attached garage. The site was to be landscaped with new plants, a pool, and driveway with motor court.

Anticipated impacts of the trees around the building site ranged from "very low" to "moderate" depending on the resilience of the tree and its proximity to the work. Anticipated impacts to trees to be preserved were as follows:

- **Tree #80 (15" coast live oak):** This tree would be anticipated to sustain "moderate" impacts (10% - 25% root loss) from the proposed motor court and retaining wall construction. **Please see "Special Tree Protection Measures" section of this report for guidelines on working within 6x DBH of this tree.** A minor amount of pruning would be needed to achieve vehicle clearance for the new driveway. Please see "Prune Branches" section of this report.

- **Trees #92 - #96 (black walnuts, *Juglans nigra*), Tree #115 (9" olive, *Olea europeea*), and Trees #107, #108, #111, #112, and #114 (oaks):** These trees would not be impacted significantly by the project (root loss of 0% - 5%) and would only need to be protected from movement throughout the site, and material or equipment storage.

- **Tree #97 (32" coast live oak):** This tree would be anticipated to sustain "moderate" impacts (10% - 25% root loss) from the excavation for the proposed lightwell. **Please see "Special Tree Protection Measures" section of this report for guidelines on working within 6x DBH of this tree.**

Continued Tree Care 13
Post-Construction Monitoring 13
Conclusion 14
Glossary 15
Sources 18
TPZ-I FENCING DIAGRAM 19
CERTIFICATE OF APPRAISAL 20
TREE INVENTORY (TABLE) 21
APPRAISAL SUMMARY 22
TREE PROTECTION ZONE MAP 23

NONE - No anticipated impact to roots, soil environment, or above-ground parts

SPREAD: Distance between farthest branch tips.

SUITABILITY ASSESSMENT: An individual tree's suitability for preservation considering impacts, condition, maturity, species tolerance, site characteristics, and species desirability. (HIGH, MODERATE, or LOW)

TOLERANCE: General species tolerance to construction (GOOD, MODERATE, or POOR) as given in Managing Trees During Construction, Second Edition, by International Society of Arboriculture

TREE STATUS: "Protected "- when related to zoning approvals, most species, when the DBH is four inches or more (includes dead trees and fallen trees). "Large protected trees" – any Oak, California Buckeye, or Pacific Madrone, when the trunk DBH is 24 inches or more. Any other species when the DBH is 48 inches or more. Fruit trees exempt unless over 18". I used the mathematically derived diameter of total cross-sectional area of multi-trunk trees to determine if they qualified.

POST-CONSTRUCTION

Ensure any mitigation measures to ensure long-term survival including but not limited to:

Continued Tree Care

Provide adequate and appropriate irrigation. As a rule of thumb, provide 1- 2 inches of water per month. Water slowly so that it penetrates 18 inches into the soil, to the depth of the tree roots. Native oaks usually should not be provided supplemental water during the warm, dry season (June – September) as this activates oak root fungus. Therefore, native oaks should only be watered October – May when rain has been scarce.

Mulch insulates the soil, reduces weeds, reduces compaction, and promotes myriad benefits to soil life and tree health. Apply four inches of wood chips (or other mulch) to the surface of the soil around trees, extending at least to the dripline when possible. Take care not to pile mulch against the trunk.

Do not fertilize unless a specific nutrient deficiency has been identified and a specific plan prescribed by the project arborist (or a consulting arborist).

Post-Construction Monitoring

Monitor trees for changes in condition. Check trees at least once per month for the first year post-construction. Expert monitoring should be done at least every 6 months or if trees show signs of stress. Signs of stress include unseasonably sparse canopy, leaf drop, early fall color, browning of needles, and shoot die-back. Stressed trees are also more vulnerable to certain disease and pest infestations. Call the Project Arborist, or a consulting arborist if these, or other concerning changes occur in tree health.



ARBORIST REPORT

TREE PROTECTION - BUILDING PROJECT

REVISED JANUARY 26, 2024

PREPARED FOR:
FRED AND FERESHTEH TOOFAN

PROJECT ADDRESS:
200 HAPPY ACRES • LOS GATOS • 95030

BO FIRESTONE TREES & SUNSHINE
BUSARA FIRESTONE, CERTIFIED ARBORIST #WE-8525A
3130 LAKEY AVE., WILLOW, CA 95965
E: BUSARA@BOFIRESTONE.COM C: (408) 497-7158
WWW.BOFIRESTONE.COM

ASCA RCA #758 Registered Consulting Arborist

ARCHITECT

Noel Cross+Architects
1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A1.4
Of	
date printed:	7/16/24

LEGEND

NEW WALL (2X STUDS @ 16" O.C.) TYPICAL, U.N.O.

EXPOSED BEAM ABOVE TYPICAL, U.N.O.

WINDOW SIZE (WIDTH/HEIGHT)
WINDOW TYPE
WINDOW ORDER DESIGNATION

2'6"x3'6" CSMNT. ###

DOOR DESIGNATION, TYP. U.N.O.
DOOR SIZE
DOOR TYPE (OPTIONAL)

INTERIOR ELEVATION DESIGNATION TYPICAL U.N.O. SEE SHEET A-

SHEARWALL DESIGNATION. SEE SHEARWALL SCHEDULE FOR MORE INFO. TYPICAL U.N.O.

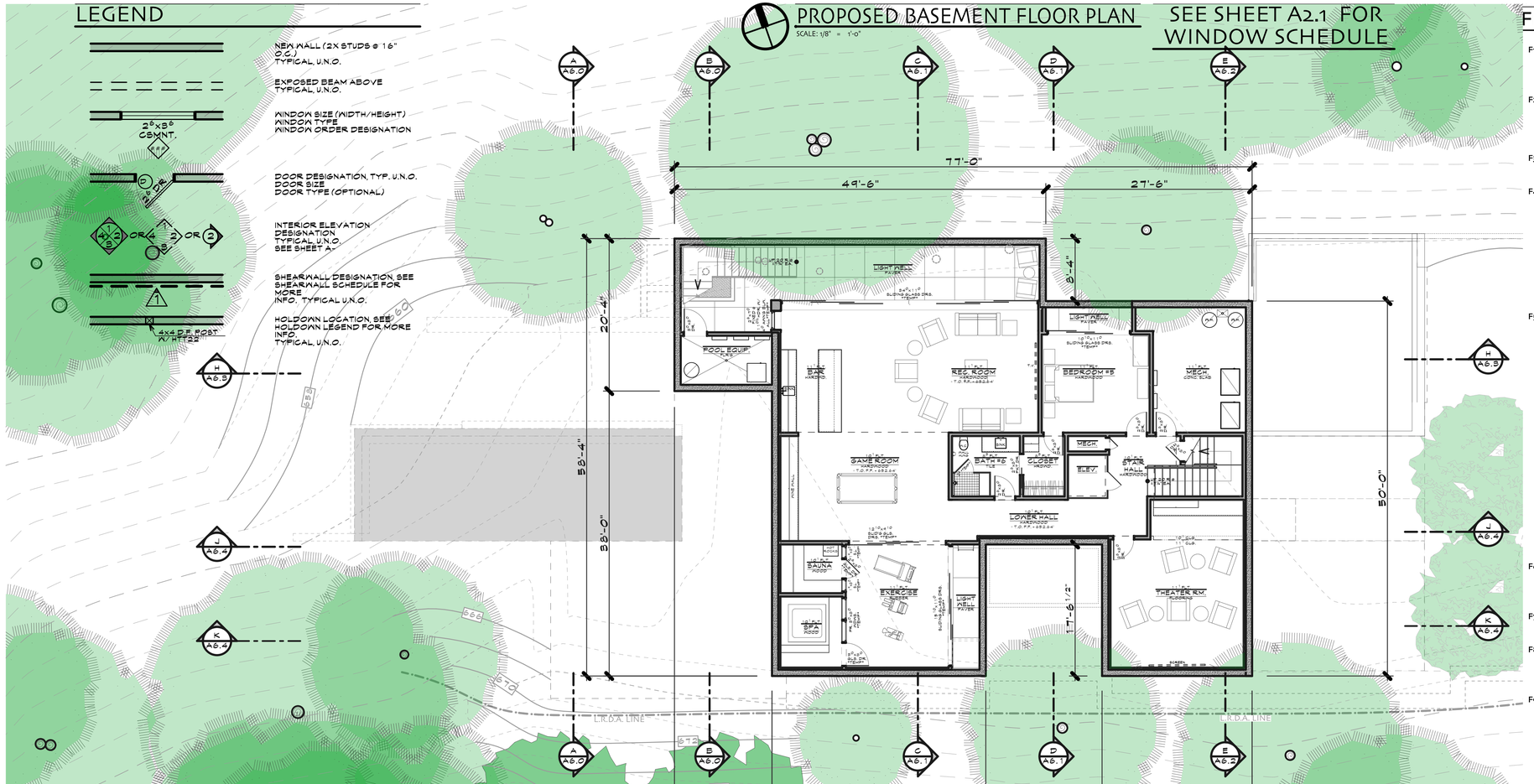
HOLDOWN LOCATION. SEE HOLDOWN LEGEND FOR MORE INFO. TYPICAL, U.N.O.

4x4 P.F. POST W/ HTT22

PROPOSED BASEMENT FLOOR PLAN

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

SEE SHEET A2.1 FOR WINDOW SCHEDULE



FLOOR PLAN NOTES

F1. Egress
per **sec. R310.1, 2022 CRC**.
all bedrooms shall have windows or doors meeting egress requirements. all egress windows with two or more latches shall have the latches interconnected and operable from the lowest latch, typical, u.n.o.

F2. Splash Areas
per **sec. 1115B.2, sec. 1210.3** & **sec. 1405.2. 2022 CBC** & **sec. R702.3.8, 2022 CRC**.
NO GREENBOARD ALLOWED!! provide water resistant 5/8" **Dens-Shield** by **Georgia-Pacific®** or 1/4" **HardieBacker** board by **JamesHardie®**, o/ asphalt saturated felt paper, o/ 2x6/2x4 d.f. studs at all water splash areas, typical, u.n.o.

F3. Post In Wall
see foundation & framing plans, typical.
install double studs, 4x & 6x d.f. posts in walls where shown/required. see details & structural drawings for holdown specs, typical, u.n.o.

F4. One Hour Firewall at Walls/Ceilings Common to Garage & Under Stairs
Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. per **2022 CRC sec. R302.6** & **2022 CRC Table R302.6.** fire-rated assemblies shall have all joints & nail heads taped with taping compound **per sec. 2508.4, 2022 CBC**
Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. at:
a. all walls & ceilings/beams of garage, or up common wall between garage & living space to underside of roof sheathing system, and
b. at all walls & ceilings of enclosed accessible storage space under interior stairs.
c. all penetrations in common firewall shall be protected by an approved firestop as tested per **2022 CRC sec. R302.4.1.2.** Ducts in the garage and ducts penetrating the common firewall shall be made of 26 gauge sheet metal or other approved materials, and shall have no openings into the garage **per 2022 CRC sec. R302.5.2.**

F5. Bathtubs/Showers and Enclosures
see plumbing sched. & elec. plan for more info.
all wall & ceiling tile to be installed o/ water-proofing, o/ moisture resistant underlayment (per note **#F2** above) to a height of 72" min. above drain inlet per **2022 CRC sec. R307.2** & **sec. R702.3.8.**
SEE TILE SPECS and PLUMBING FIXTURE SCHEDULE BY INTERIOR DESIGNER FOR MORE INFO.
Flr. framing @ main & upper flr. showers: 9½" TJI/Pro 560 floor joists @ 16" o.c. per structural found./framing plans, details & notes.
a. Master Bath Shower : job-built curb-less accessible shower w/ **QuARTz** linear slot drain by **ACO USA**, & stone tile floor, seat, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door/enclosures, typical, u.n.o.
b. Tub @ Master Bath : free-standing 66" long x 34" soaking tub, and tile walls per ID drawings, typical, u.n.o.
c. Shower @ Baths #2, #3, #4 & Guest Bath: job-built curb-less accessible shower w/**QuARTz** linear slot drain by **ACO USA** and tile floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.
d. Basement Shower & Pool Changing Rm. Shower : job-built shower w/center drain & tile curb, floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.

F6. Cabinetry, Fixtures, Closet Packages, and Appliances
contractor & cabinet maker shall verify all final design details & materials w/owner as well as all room dimensions & rough openings for fixtures & appliances, prior to fabrication & installation, typical, u.n.o.

F7. Crawl Space Access
per **sec. R408.4, 2019 CRC**. **FYI–there are no crawl spaces!**
provide new 18" x 24" min. access where shown w/ double 2x6 framing all around opening. see foundation plan for more info. typical, u.n.o.

F8. Attic Access
per **sec. R807.1, 2022 CRC**. **FYI – there are no attics!**
provide new 22"x30" (minimum) attic access at location indicated w/ 30" min. clear headroom in the attic space at, or above the access opening. provide/verify double 2x framing all around opening, typ., u.n.o.

F9. HVAC System All Electric
Contractor to coordinate all supply and return air ducts, zones, thermostat locations, and power requirements of mechanical units and systems with Electrical, Mechanical & Plumbing contractors, typical. run line sets to connect to new a.c. condensers at side yards per site plan.
see electrical plan, and mech. plan, notes, and schedules by ????? Engineering Consultants, Inc. for more info.
a. radiant floor heating system high efficiency sealed combustion boiler for radiant floor heating at basement mech. rm. location. use **Eco Warm®** radiant panel floor heating system as specified on elec/mech plan, typical. Contractor to coordinate all heating, zones, thermostats, and power requirements of mechanical units, pumps, etc.
b. HRV/ERV Ventilation System Heat/Energy Recovery Ventilation (HRV/ERV) unit in basement mech. room. Contractor to coordinate all supply/return ducts, zones, access, and power requirements of system with sub-contractors, typical.
c. main floor forced air HVAC cooling system high efficiency Air to Water Heat Pump with Forced Air Handler at basement mech. room location w/ cooling coil to provide A.C. to main floor. all new ducting & registers are as shown on mech plan, typical.
d. upper floor attic/ceiling mounted mini-split heat pump forced air cooling system install per manuf. specs. ceiling mounted mini-split "pancake" units. contractor to coordinate all for heating zones, ducting runs, return air, thermostat locations, power requirements, etc. run line sets to connect to new a.c. condenser per site plan.
e. exterior condensers: provide/install condenser units at exterior locations indicated per plan. coordinate line sets installation as required, typical.

F10. Heat Pump Water Heaters & Radiant Floor Boiler Units All Electric
see electrical/mechanical plan drawings, notes, and schedules by **????? Engineering Consultants, Inc.** for more info., typical, u.n.o.

F11. Conc. Porches & Patios/Walks
slope to drain @ ¼" per flt. away from structures.
paving shall be per **sec. R300.2, 2022 CRC** in accordance w/**2022 CGBSC, chapter 4, Division 4.1**, typical, u.n.o.
all stoops outside exterior doors shall conform to **2022 CBC sec. 1008.1.4** & **sec. 1008.1.5**, and **2022 CRC sec. R311.3**, typical.
install all concrete slabs o/ 15 mil **Stegowrap®** (or approved equiv.) vapor barrier, o/ **6" (min.)** of properly compacted clean **Caltran Class II** aggregate baserock, o/ properly compacted and pre-moistened subgrade per the soils report, by **GeoForensics, Inc.**, typical, u.n.o.
a. entry walk limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab, typical, u.n.o.
b. all other patios and terraces acid etched, or stained/scored concrete slab (color/score pattern per landscape drawings), typical, u.n.o.
c. OPTIONAL: stone paving at family rm./pool terrace: OPTIONAL: to provide limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab per detail, typical, u.n.o.

F12. Plywood Shearwalls, & Hardi-Frames In Wall
see structural notes & details. provide shop drawings for review by engineer & architect prior to fabrication.
a. plywood shearwalls: see foundation & framing plans for all shearwall panels & holdown locations. see shearwall schedule for edge & field nailing for shearwall panels. typical, u.n.o.

F13. Steel Moment Frames, Beams and Columns
provide shop drwgs. for review by structural engineer & architect prior to fabrication.
W10x___ structural steel **Wide Flange** columns with 2x **clear cedar** infill, or 6"x6" **HSS** steel columns set on welded base plate w/anchor bolts cast into concrete walls/piers at locations indicated, and new **Wide Flange** or **HSS** steel beams where shown. structural steel shall conform to **ASTM A-36** specs. & to the **AISC** specs. for fabrication & erection. steel finish and welds on exposed arch't. assemblies shall be ground smooth and finished per owner and architect's specs. see arch't. details and struct. framing plans & details by **ISE** for more info., typical, u.n.o

F14. Bath Accessories
see interior elevations for more info. **per Town of LG Disability Accessibility Standards.**
verify all colors, sizes, finishes, etc. of bath accessories, towel bars, roll holders, medicine cabinets, etc. w/ interior designer, typ., u.n.o. **make sure to install 2x8 (min.) blocking @ +34" a.f.f. to centerline at all bath walls, water closets, showers, bathtubs, etc. suitable for future installation of grab bars if needed.**

F15. Finishes/Special Ceiling Treatments
a. finishes verify w/interior designer and owner for all final wall, floor, & ceiling finishes, typical.
b. ceiling treatments see framing plans, cross sections, interior elevations for all dropped and soffited ceilings.

F16. Thermal Insulation and Sound Insulation
a. floors:
Install new **11" min. (R-40) open cell spray foam** between all floor joists over unheated garage below., typical, u.n.o.
b. new flat ceilings/roofs: (R-42) 3" thick (average) Hi-Shield Hunter Panels (R-17) over 7" min. (R-25) open cell spray foam btwn. all roof/ceiling joists at flat roofs, typical, u.n.o.
c. exterior walls:
all batt insulation to be Roxul ComfortBatt ® unfaced formaldehyde-free **fire resistant** stone wool insulation, typical, u.n.o.
all open cell spray foam to be **Foam-Lok FL 5500 Open Cell Spray Foam Insulation by LaPolla Industries, Inc. (ICC-ES Eval. Report #ICC ESR-2847)** and installed by **Certified Nozzle men** for spraying of foam as required by code
5½" **(R-23) Roxul ComfortBatt ®** unfaced formaldehyde-free **fire resistant** stone wool batts @ all interior "sound" walls and between flr. joists between floors where indicated on floor plan, typical, u.n.o.
d. interior sound walls :
3½" **(R-11) Roxul ComfortBatt ®** unfaced formaldehyde-free **fire resistant** stone wool batts @ all interior "sound" walls and between flr. joists between floors where indicated on floor plan, typical, u.n.o.

F17. Utilities/Meters/Panels
see site plan and electrical/mechanical plan drawings and specs for more info., typical, u.n.o.

F18. Interior Stair & Handrail
final design & shop drawings for **interior stair & handrail design** to be handled as a **deferred submittal** by General Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.
see interior elevs., and arch't. details for more info., typical.
Optional Bid: for **M-Rail®** stair & handrail system (coord./verify with owner & interior designer).
a. main interior stair
provide/install **(3) – 4x14 stain grade** treads - (approx. 11½" run) mounted to **HSS** steel tube stringer w/ open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see arch't. stair details for more info, typical, u.n.o.
b. interior stair handrail
1 3/4" wide x 1 1/4" tall brushed **stainless steel** handrail with 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) w/ (2)- **stainless steel** clamps welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch't. details for more info. typical, u.n.o.
c. handrail code specs
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1½" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012, & sec. 1607A.7, & 2022 CRC sec. R311.7.8,** typical, u.n.o.

F19. Int. & Ext. Guardrails
final design/shop drawings for **interior & exterior guardrail design** to be handled as a **deferred submittal** by the General Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.
Optional Bid: for **M-Rail®** railing system (coord./verify with owner & interior designer).
tempered glass guard railing brushed **stainless steel** guardrail o/ custom o/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)- **stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch't. details for more info. typical, u.n.o. refer to floor plans, arch't. details, int. & ext. elevations, and structural framing plans & details for more info. typical, u.n.o.
a. exterior stair
provide/install (12) - 5/4x6 **IPE** treads - (approx. 11½" run) & open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see exterior stair details for more info, typical, u.n.o.
b. exterior stair handrail
1½" wide x 1½" tall brushed **stainless steel** handrail, o/ custom o/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)- **stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and welded to **steel C-channel ext. stair stringers**. install infill glass railing per manuf. specs. see arch't. details for more info, typ., u.n.o.
c. handrail code specs
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1½" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012, & sec. 1607A.7,** and **2022 CRC, sec. R311.7.8,** typical, u.n.o.

F20. Exterior Stair & Handrail
final design & shop drawings for exterior stair & handrail design to be handled as a **deferred submittal** by General Contractor & submitted to Bldg. Dept., owner, & architect for approval prior to fabrication, typical, u.n.o.
see interior and exterior elevations, and arch't. details for more info., typical.
Optional Bid: for **M-Rail®** stair and railing system (coord./verify with owner & interior designer).

F21. Living Room Fireplace
confirm exact model# and features w/owner before ordering, typical, u.n.o.
ethanol/alcohol-burning linear fireplace by **EcoSmart™Fire model no. FLEX 50SS** vent-less e-NRG Bioethanol-burning fireplace, typical, u.n.o. install per manuf. specs provide/ install stone slab and adhered stone veneer facing per interior elevations, typical, u.n.o.

F22. Elevator
see mech./elect. plan and details for more info.
contractor to provide and install 40" x 54" residential elevator by **National Wheel-O-Vator Company**, or equiv. elevator to be installed per manuf. specs. typical, u.n.o.

DOOR SCHEDULE

D5. Door Hardware
contractor to provide allowance & install **Oil Rubbed Bronze or equiv.** throughout
Rocky Mountain, lever handles, or equiv. at all door hardware, owner/interior designer to select all new lever hardware (latch/locksets, butt hinges, and floor mounted door stops). contractor to verify all finishes, model numbers, and keying requirements with owners prior to final ordering hardware, typical, u.n.o

D6. Garage Vehicle Door (WUI Rated)
as manuf. by **Garage Doors, Inc.,** or equiv.
provide weather-stripping all around the perimeter jamb.
provide shop drawings for review by architect and owner.
provide/install bronze anodized aluminum frame overhead sectional vehicle doors with satin etched sandblasted **tempered** glazing panels as shown on exterior elevations **"Aluma-Door" collection as manuf. by MFC Direct, Ltd.,** or equiv. aluminum frame sectional overhead door. use **tempered/ frosted** glass lites @ panels per exterior elevations. include **Liftmaster® 1.0 hp** chain drive automatic openers for all overhead doors. provide (6)- remote transmitters – two (2) wall mounted, (4)-for autos, typical, u.n.o.

D7. Thresholds and Landings
all landings at ext. doors to be per **sec. R311.3, 2022 CRC** and **have 60" square landing per Los Gatos ordinance.**
exterior screen doors and storm doors may swing out over a step or landing.
a. Entry Door – Main Egress Door: threshold ht. from interior shall be ½" max. above finish floor & ±¾" max. above finish exterior landing per **sec. R311.3.1, 2022 CRC.** exterior landing to have max. slope of ¼" per foot (2% max.) per **sec. R311.3, 2022 CRC.** landing length to be 36" min. in the direction of travel per **sec. R311.3, 2022 CRC.** all raised thresholds shall be bevel sloped per **2022 CBC sec. 1008.1.7,**
b. Exterior Sliding Doors: threshold ht. from interior = ½" max. above finish floor, & ±¾" max above finish exterior landing per **sec. R311.3.2, 2022 CRC,** and **sec. 1008.1.7, 2022 CBC.**
c. Exterior In-Swing Doors: threshold ht. from interior = ½" max above finish floor, and ±¾" max above finish exterior landing per **sec. R311.3.2, 2022 CRC,** and **sec. 1008.1.7, 2022 CBC.**
d. Exterior Out-Swing Doors (not entry): threshold ht. from interior shall be ½" max above finish floor & ±¾" max above finish exterior landing per **sec. 1008.1.7, 2022 CBC.** exterior landing to have max. slope of ¼" per foot (2% max.) per **sec. R311.3, 2022 CRC.** landing length to be 36" min. in the direction of travel per **sec. R311.3, 2022 CRC.**

D1. Entry Doors
provide $18,000 allowance & install unit by **NorthStar Door Company** or **approved equiv.** see note **D7** below for threshold, landing, etc.
All exterior doors shall have a fire-resistive rating of not less than 20 minutes when tested according to NFPA 252, have an exterior surface of non-combustible or ignition-resistant cladding, or be solid core wood with stiles/rails not less than 1 3/8" thick, be tested to ASTM E2707, or be tested to SFM Standard 12-7 A-1.
a. Main Entry/Gallery Door: new 3'-0" thick x 5'-0" wide x 9'-4" tall solid core **stain grade Sapele Mahogany (slip match) pivot door** w/2" thick stain grade Sapele mahogany flush sill. Max. ½" drop to landing. **Fritz-Jurgens System M self-closing in door mounted pivot/closer with Dorma #HD-8062 (or Rixson) Top Pivot, or equiv.**, typical, u.n.o.

D2. New Interior Doors
door hardware to be selected by interior designer. **8'-0" tall doors @ Main and Lower Floor, typical, u.n.o.**
a. Exterior Door – Main Egress Door: solid core **formaldehyde-free** composite as manuf. by **Tru-Stile model #TMP-2000** or approved equiv. **stain grade select alder** 1¾" thick interior doors, typical.
verify rail/stile widths, & all door details **w/owner & architect prior to ordering.**
b. pocket doors: same doors per note **D2.a.** above, with heavy duty pocket door hardware by **Johnson 1500 Series** or equiv., typical, u.n.o.
c. sliding barn doors: stain grade interior door similar to **#D2.a.** above, with **Aero Stainless Flat Track Barn Door Hardware** as manuf. by **REAL Sliding Hardware in Matte Black**, typical, u.n.o.
Garage Interior Fire Door
1⅜" thick (min.) **solid core stain grade** wood door, to match other interior doors per note #D2a above, with **20 minute fire rating**, and anodized aluminum threshold w/ weather-stripping, typical, u.n.o.

D3. Interior Fire Doors
w/ automatic self closer, self latching & gasketed door per **sec. R302.5, 2022 CRC, R302.5.1, 2022 CRC** & **sec. 406.1.4, 2022 CBC**

D4. Exterior Sliding Doors
U-Value = 0.27
SHGC = 0.20
refer to exterior elevations, window schedule, and floor plans for more info. typical.
verify final color of exterior finishes and interior wood species with shop drawings prior to ordering. coordinate final door sizes, details, jamb depths, w/architect & owner prior to ordering
see note **D7** below for thresholds, landings, etc.
a. Lift & Slide doors: Weiland Doors® "Hidden Threshold" Dark Bronze Anodized aluminum frame lift & slide sliding glass doors. include **tempered dual 366/189 low "e"** glass, and drainage flush track system with stone tile, or hardwood floor inlays between tracks, typ., u.n.o.
b. Multi-Track Sliding Glass Doors : Fleetwood 3070-T Series black anodized aluminum frame Multi Track sliding patio doors, w/**tempered dual 366/189 low "e" glass.** Include black fiber-mesh screen door with bronze anodized aluminum frame, typical, u.n.o.
c. Hardware: Churchill Handle in Rustic Bronze for all multi-sliding doors, typical, u.n.o.

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A2.0
Of date printed:	7/16/24

LEGEND

NEW WALL (2X STUDS @ 16" O.C.) TYPICAL, U.N.O.

EXPOSED BEAM ABOVE TYPICAL, U.N.O.

WINDOW SIZE (WIDTH/HEIGHT)
WINDOW TYPE
WINDOW ORDER DESIGNATION

DOOR DESIGNATION, TYP. U.N.O.
DOOR SIZE
DOOR TYPE (OPTIONAL)

INTERIOR ELEVATION DESIGNATION TYPICAL U.N.O. SEE SHEET A-

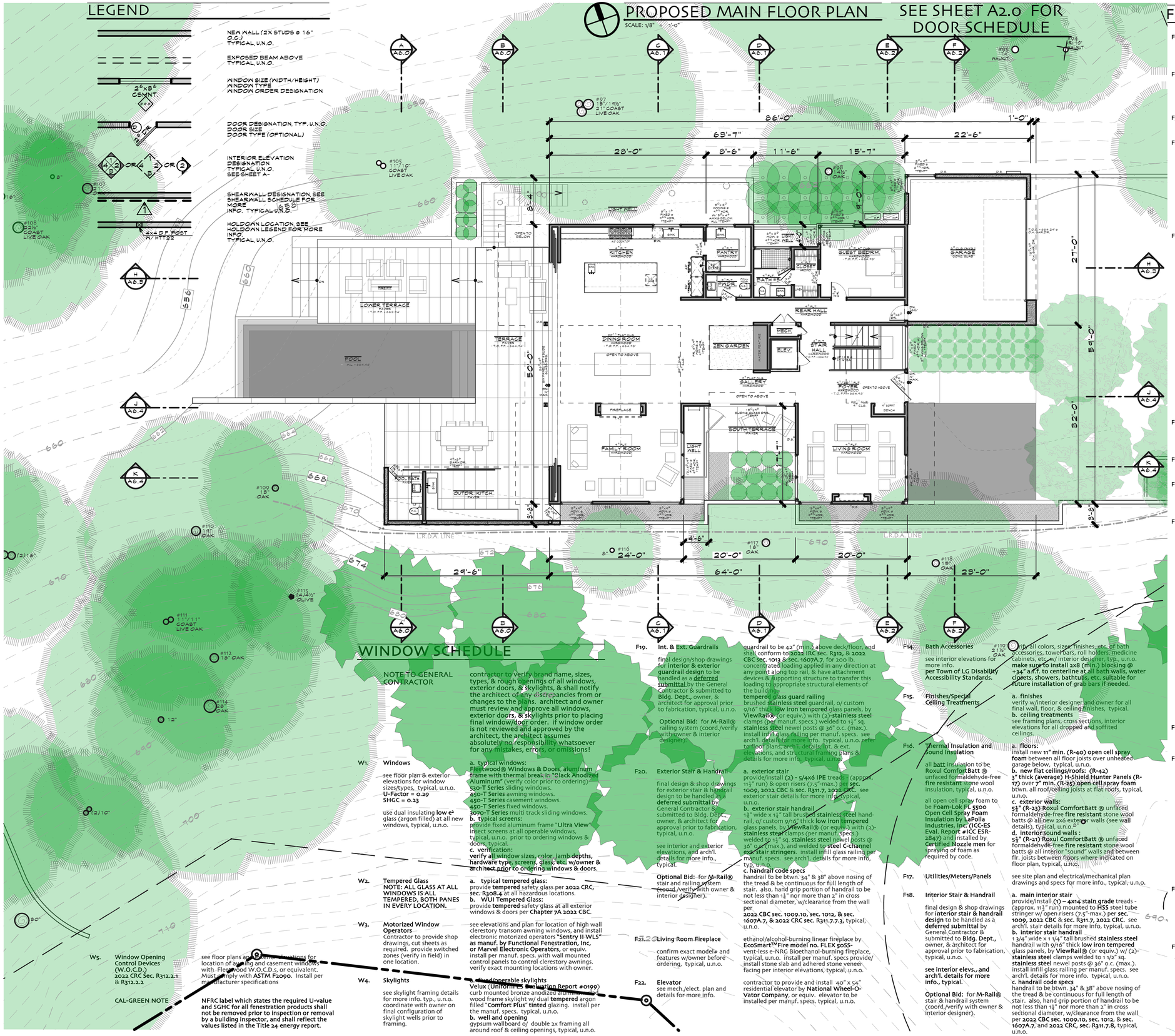
SHEARWALL DESIGNATION, SEE SHEARWALL SCHEDULE FOR MORE INFO. TYPICAL U.N.O.

HOLDOWN LOCATION, SEE HOLDOWN LEGEND FOR MORE INFO TYPICAL, U.N.O.

PROPOSED MAIN FLOOR PLAN

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

SEE SHEET A2.0 FOR DOOR SCHEDULE



WINDOW SCHEDULE

NOTE TO GENERAL CONTRACTOR

contractor to verify brand name, sizes, types, & rough openings of all windows, exterior doors, & skylights, & shall notify the architect of any discrepancies from or changes to the plans. architect and owner must review and approve all windows, exterior doors, & skylights prior to placing final window/door order. if window order is not reviewed and approved by the architect, the architect assumes absolutely no responsibility whatsoever for any mistakes, errors, or omissions!

W1. Windows

see floor plan & exterior elevations for window sizes/types, typical, u.n.o.
U-Factor = 0.29
SHGC = 0.23

use dual insulating **low e²** glass (argon filled) at all new windows, typical, u.n.o.

a. typical windows:
Fleetwood® Windows & Doors, aluminum frame with thermal break in "Black Anodized Aluminum" (verify color prior to ordering)
530-T Series sliding windows.
450-T Series awning windows.
450-T Series casement windows.
450-T Series fixed windows.
3070-T Series multi track sliding windows.
b. typical screens:
provide fixed aluminum frame "**Ultra View**" insect screens at all operable windows, typical, u.n.o. prior to ordering windows & doors, typical.
c. verification:
verify all window sizes, color, jamb depths, hardware type, screens, glass, etc. w/owner & architect prior to ordering windows & doors.

W2. Tempered Glass
NOTE: ALL GLASS AT ALL WINDOWS IS ALL TEMPERED, BOTH PANES IN EVERY LOCATION.

a. **typical tempered glass:**
provide **tempered** safety glass per **2022 CRC, sec. R308.4** at all hazardous locations.
b. WUI Tempered Glass:
provide **tempered** safety glass at all exterior windows & doors per **Chapter 7A 2022 CBC**.

W3. Motorized Window Operators
Contractor to provide shop drawings, cut sheets as required. provide switched zones (verify in field) in one location.

see elevations and plan for location of high wall clerestory transom awning windows, and install electronic motorized operators **"Sentry II-WLS" as manuf. by Functional Fenestration, Inc, or Marvel Electronic Operators,** or equiv. install per manuf. specs. with wall mounted control panels to control clerestory awnings. verify exact mounting locations with owner.

W4. Skylights

see skylight framing details for more info. typ., u.n.o. coordinate with owner on final configuration of skylight wells prior to framing.

a. **fixed/operable skylights**
Velux (Uniform-Lt Evaluation Report #0199) curb mounted bronze anodized aluminum clad wood frame skylight w/ dual **tempered** argon filled "**Comfort Plus**" **tinted** glazing. install per the manuf. specs. typical, u.n.o.
b. well and opening
gypsum wallboard o/ double 2x framing all around roof & ceiling openings, typical, u.n.o.

W5. Window Opening Control Devices (W.O.C.D.)
2022 CRC Sec. R312.2.1 & R312.2.2

see floor plans and exterior elevations for location of awning and casement windows with Fleetwood W.O.C.D.s, or equivalent. Must comply with **ASTM F2090**. Install per manufacturer specifications

CAL-GREEN NOTE

NFRC label which states the required U-value and SGHC for all fenestration products shall not be removed prior to inspection or removal by a building inspector, and shall reflect the values listed in the Title 24 energy report.

F19. Int. & Ext. Guardrails

final design/shop drawings for **interior & exterior guardrail design** to be handled as a **deferred submittal** by the General Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.

Optional Bid: for **M-Rail®** railing system (coord./verify with owner & interior designer).

F20. Exterior Stair & Handrail

final design & shop drawings for exterior stair & handrail design to be handled as a **deferred submittal** by General Contractor & submitted to Bldg. Dept., owner, & architect for approval prior to fabrication, typical, u.n.o.

see interior and exterior elevations, and arch't. details for more info., typical.

Optional Bid: for **M-Rail®** stair and railing system (coord./verify with owner & interior designer).

F21. Living Room Fireplace

confirm exact model# and features w/owner before ordering, typical, u.n.o.

F22. Elevator

see mech./elect. plan and details for more info.

guardrail to be 42" (min.) above deck/floor, and shall conform to **2022 IRC sec. R312, & 2022 CBC sec. 1013 & sec. 1607A.7**, for 200 lb. concentrated loading applied in any direction at any point along top rail, & have attachment devices & supporting structure to transfer this loading to appropriate structural elements of the building.
tempered glass guard railing
brushed **stainless steel** guardrail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch't details for more info. typical, u.n.o. refer to floor plans, arch't. details, int. & ext. elevations, and structural framing plans & details for more info., typical, u.n.o.

a. **exterior stair**
provide/install (2) - 5/4x6 **IPE** treads - (approx. 11½" run) & open risers (7.5"-max.) per **sec. 1009, 2022 CBC & sec. R311.7, 2022 CRC**. see exterior stair details for more info., typical, u.n.o.
b. exterior stair handrail
1¼" wide x 1¼" tall brushed **stainless steel** handrail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and welded to **steel C-channel** ext. **stair stringers**. install infill glass railing per manuf. specs. see arch't. details for more info, typ., u.n.o.
c. handrail code specs
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1½" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012, & sec. 1607A.7, & 2022 CRC sec. R311.7.7.3**, typical, u.n.o.

ethanol/alcohol-burning linear fireplace by **EcoSmart™Fire model no. FLEX 50SS**-vent-less e-NRG Bioethanol-burning fireplace, typical, u.n.o. install per manuf. specs provide/ install stone slab and adhered stone veneer, facing per interior elevations, typical, u.n.o.

contractor to provide and install 40" x 54" residential elevator by **National Wheel-O-Vator Company**, or equiv. elevator to be installed per manuf. specs. typical, u.n.o.

F14. Bath Accessories

see interior elevations for more info.
per Town of LG Disability Accessibility Standards.

F15. Finishes/Special Ceiling Treatments

F16. Thermal Insulation and Sound Insulation

all batt insulation to be Roxul ComfortBatt ® unfaced formaldehyde-free **fire resistant** stone wool insulation, typical, u.n.o.

all open cell spray foam to be **Foam-Lok PL 5500 Open Cell Spray Foam Insulation by LaPolla Industries, Inc. (ICC-ES Eval. Report #ICC ESR-2847)** and installed by **Certified Noozle men** for spraying of foam as required by code.

F17. Utilities/Meters/Panels

see site plan and electrical/mechanical plan drawings and specs for more info., typical, u.n.o.

F18. Interior Stair & Handrail

final design & shop drawings for **interior stair & handrail design** to be handled as a **deferred submittal** by General Contractor & submitted to **Bldg. Dept.,** owner, & architect for approval prior to fabrication, typical, u.n.o.

see interior elevs., and arch't. details for more info., typical.

Optional Bid: for **M-Rail®** stair & handrail system (coord./verify with owner & interior designer).

FLOOR PLAN NOTES

F1. Egress
per **sec. R310.1, 2022 CRC**.
all bedrooms shall have windows or doors meeting egress requirements. all egress windows with two or more latches shall have the latches interconnected and operable from the lowest latch, typical, u.n.o.

F2. Splash Areas
per **sec. 1115B.2, sec. 1210.3 & sec. 1405.2, 2022 CBC & sec. R702.3.8, 2022 CRC**.
NO GREENBOARD ALLOWED!!
provide water resistant 5/8" **Dens-Shield** by **Georgia-Pacific®** or 1/4" **HardieBacker** board by **JamesHardie®**, o/ asphalt saturated felt paper, o/ 2x6/2x4 d.f. studs at all water splash areas, typical, u.n.o.

F3. Post In Wall
see foundation & framing plans, typical.
install double studs, 4x & 6x d.f. posts in walls where shown/required. see details & structural drawings for holdown specs, typical, u.n.o.

F4. One Hour Firewall at Walls/Ceilings Common to Garage & Under Stairs

Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. per **2022 CRC sec. R302.6 & 2022 CRC Table R302.6.**
fire-rated assemblies shall have all joints & nail heads taped with taping compound **per sec. 2508.4, 2022 CBC**

Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. at:
a. all walls & ceilings/beams of garage, or up common wall between garage & living space to underside of roof sheathing system, and
b. at all walls & ceilings of enclosed accessible storage space under interior stairs.
c. all penetrations in common firewall shall be protected by an approved firestop as tested per **2022 CRC sec. R302.4.1.2.** Ducts in the garage and ducts penetrating the common firewall shall be made of 26 gauge sheet metal or other approved materials, and shall have no openings into the garage **per 2022 CRC sec. R302.5.2.**

F5. Bathtubs/Showers and Enclosures

see plumbing sched. & elec. plan for more info.

all wall & ceiling tile to be installed o/ water-proofing, o/ moisture resistant underlayment (per note **#F2** above) to a height of 72" min. above drain inlet per **2022 CRC sec. R307.2 & sec. R702.3.8.**

SEE TILE SPECS and PLUMBING FIXTURE SCHEDULE BY INTERIOR DESIGNER FOR MORE INFO.

Flr. framing @ main & upper flr. showers: 9½" TJI/Pro 560 floor joists @ 16" o.c. per structural found./framing plans, details & notes.

a. Master Bath Shower :
job-built curb-less accessible shower w/ **QUARTz** linear slot drain by **ACO USA**, & stone tile floor, seat, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door/enclosures, typical, u.n.o.
b. Tub @ Master Bath :
free-standing 66" long x 34" soaking tub, and tile walls per ID drawings, typical, u.n.o.
c. Shower @ Baths #2, #3, #4 & Guest Bath:
job-built curb-less accessible shower w/**QUARTz** linear slot drain by **ACO USA** and tile floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.
d. Basement Shower & Pool Changing Rm. Shower :
job-built shower w/center drain & tile curb, floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.

F6. Cabinetry, Fixtures, Closet Packages, and Appliances
contractor & cabinet maker shall verify all final design details & materials w/owner as well as all room dimensions & rough openings for fixtures & appliances, prior to fabrication & installation, typical, u.n.o.

F7. Crawl Space Access
per **sec. R408.4, 2019 CRC**.
FYI–there are no crawl spaces!

F8. Attic Access
per **sec. R807.1, 2022 CRC**.
FYI – there are no attics!
provide new 18" x 24" min. access where shown w/ double 2x6 framing all around opening. see foundation plan for more info. typical, u.n.o.
provide new 22"x30" (minimum) attic access at location indicated w/ 30" min. clear headroom in the attic space at, or above the access opening. provide/verify double 2x framing all around opening, typ., u.n.o.

F9. HVAC System All Electric
Contractor to coordinate all supply and return air ducts, zones, thermostat locations, and power requirements of mechanical units and systems with Electrical, Mechanical & Plumbing contractors, typical. run line sets to connect to new a.c. condensers at side yards per site plan.
see electrical plan, and mech. plan, notes, and schedules by ????? Engineering Consultants, Inc. for more info.
a. radiant floor heating system
high efficiency sealed combustion boiler for radiant floor heating at basement mech. rm. location. use **Eco Warm®** radiant panel floor heating system as specified on elec/mech plan, typical. Contractor to coordinate all heating, zones, thermostats, and power requirements of mechanical units, pumps, etc.
b. HRV/ERV Ventilation System
Heat/Energy Recovery Ventilation (HRV/ERV) unit in basement mech. room. Contractor to coordinate all supply/return ducts, zones, access, and power requirements of system with sub-contractors, typical.
c. main floor forced air HVAC cooling system
high efficiency Air to Water Heat Pump with Forced Air Handler at basement mech. room location w/ cooling coil to provide A.C. to main floor. all new ducting & registers are as shown on mech plan, typical.
d. upper floor attic/ceiling mounted mini-split heat pump forced air cooling system
install per manuf. specs. ceiling mounted mini-split "pancake" units. contractor to coordinate all for heating zones, ducting runs, return air, thermostat locations, power requirements, etc. run line sets to connect to new a.c. condenser per site plan.
e. exterior condensers:
provide/install condenser units at exterior locations indicated per plan. coordinate line sets installation as required, typical.

F10. Heat Pump Water Heaters & Radiant Floor Boiler Units All Electric
see electrical/mechanical plan drawings, notes, and schedules by **????? Engineering Consultants, Inc.** for more info., typical, u.n.o.

F11. Conc. Porches & Patios/Walks
slope to drain @ ¼" per ft. away from structures.
paving shall be per **sec. R300.2, 2022 CRC** in accordance w/**2022 CGBSC, chapter 4, Division 4.1**, typical, u.n.o.
all stoops outside exterior doors shall conform to **2022 CBC sec. 1008.1.4 & sec. 1008.1.5**, and **2022 CRC sec. R311.3**, typical.
a. entry walk
limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab, typical, u.n.o.
b. all other patios and terraces
acid etched, or stained/scored concrete slab (color/score pattern per landscape drawings), typical, u.n.o.
c. OPTIONAL: stone paving at family rm./pool terrace:
OPTIONAL: to provide limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab per detail, typical, u.n.o.

F12. Plywood Shearwalls, & Hardi-Frames In Wall
see structural notes & details. provide shop drawings for review by engineer & architect prior to fabrication.
a. plywood shearwalls: see foundation & framing plans for all shearwall panels & holdown locations. see shearwall schedule for edge & field nailing for shearwall panels. typical, u.n.o.

F13. Steel Moment Frames, Beams and Columns
provide shop drwgs. for review by structural engineer & architect prior to fabrication.
W10x___ structural steel **Wide Flange** columns with 2x **clear cedar** infill or 6"x6" **HSS** steel columns set on welded base plate w/anchor bolts cast into concrete walls piers at locations indicated, and new **Wide Flange** or **HSS** steel beams where shown. structural steel shall conform to **ASTM A-36** specs. & to the **AISC** specs. for fabrication & erection. steel finish and welds on exposed arch't. assemblies shall be ground smooth and finished per owner and architect's specs. see arch't. details & struct. framing plans & details by **?SE** for more info., typical, u.n.o

F14. Bath Accessories
#110 2 1/2" OAK
info. all colors, sizes, finishes, etc. of bath accessories, towel bars, roll holders, medicine cabinets, etc.w/ interior designer, typ., u.n.o.
make sure to install 2x8 (min.) blocking @ +34" a.f.f. to centerline at all bath walls, water closets, showers, bathtubs, etc. suitable for future installation of grab bars if needed.

a. finishes
verify w/interior designer and owner for all final wall, floor, & ceiling finishes, typical.
b. ceiling treatments
see framing plans, cross sections, interior elevations for all dropped and soffited ceilings.

a. floors:
install new **11" min. (R-40) open cell spray foam** between all floor joists over unheated garage below, typical, u.n.o.
b. new flat ceilings/roofs: (R-42) 3" thick (average) H-Shield Hunter Panels (R-17) over **7" min. (R-25) open cell spray foam** btwn. all roof/ceiling joists at flat roofs, typical, u.n.o.
c. exterior walls:
5¼" (R-23) Roxul ComfortBatt @ unfaced formaldehyde-free **fire resistant** stone wool batts @ all new 2x6 exterior walls (see wall details), typical, u.n.o.
d. interior sound walls :
5¼" (R-21) Roxul ComfortBatt @ unfaced formaldehyde-free **fire resistant** stone wool batts @ all interior "sound" walls and between flr. joists between floors where indicated on floor plan, typical, u.n.o.

see site plan and electrical/mechanical plan drawings and specs for more info., typical, u.n.o.

a. main interior stair
provide/install **(1) – 4x14 stain grade** treads - (approx. 11½" run) mounted to **HSS** steel tube stringer w/ open risers (7.5"-max.) per **sec. 1009, 2022 CBC & sec. R311.7, 2022 CRC**. see arch't. stair details for more info, typical, u.n.o.
b. interior stair handrail
1¾" wide x 1¼" tall brushed **stainless steel** handrail with 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) w/ (2)-**stainless steel** clamps welded to 1 ½" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch't. details for more info. typical, u.n.o.
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1½" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012, & sec. 1607A.7**, and **2022 CRC, sec. R311.7.8**, typical, u.n.o.

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT NOEL F. CROSS No. C 018234 REN. 1/1/24 STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JJF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A2.1
Of	
date printed:	7/16/24

LEGEND

NEW WALL (2X STUDS @ 16" O.C.) TYPICAL, U.N.O.

EXPOSED BEAM ABOVE TYPICAL, U.N.O.

WINDOW SIZE (WIDTH/HEIGHT)
WINDOW TYPE
WINDOW ORDER DESIGNATION

2'6"x5'
CSMNT.
##

DOOR DESIGNATION, TYP. U.N.O.
DOOR SIZE
DOOR TYPE (OPTIONAL)

INTERIOR ELEVATION DESIGNATION
TYPICAL U.N.O.
SEE SHEET A-

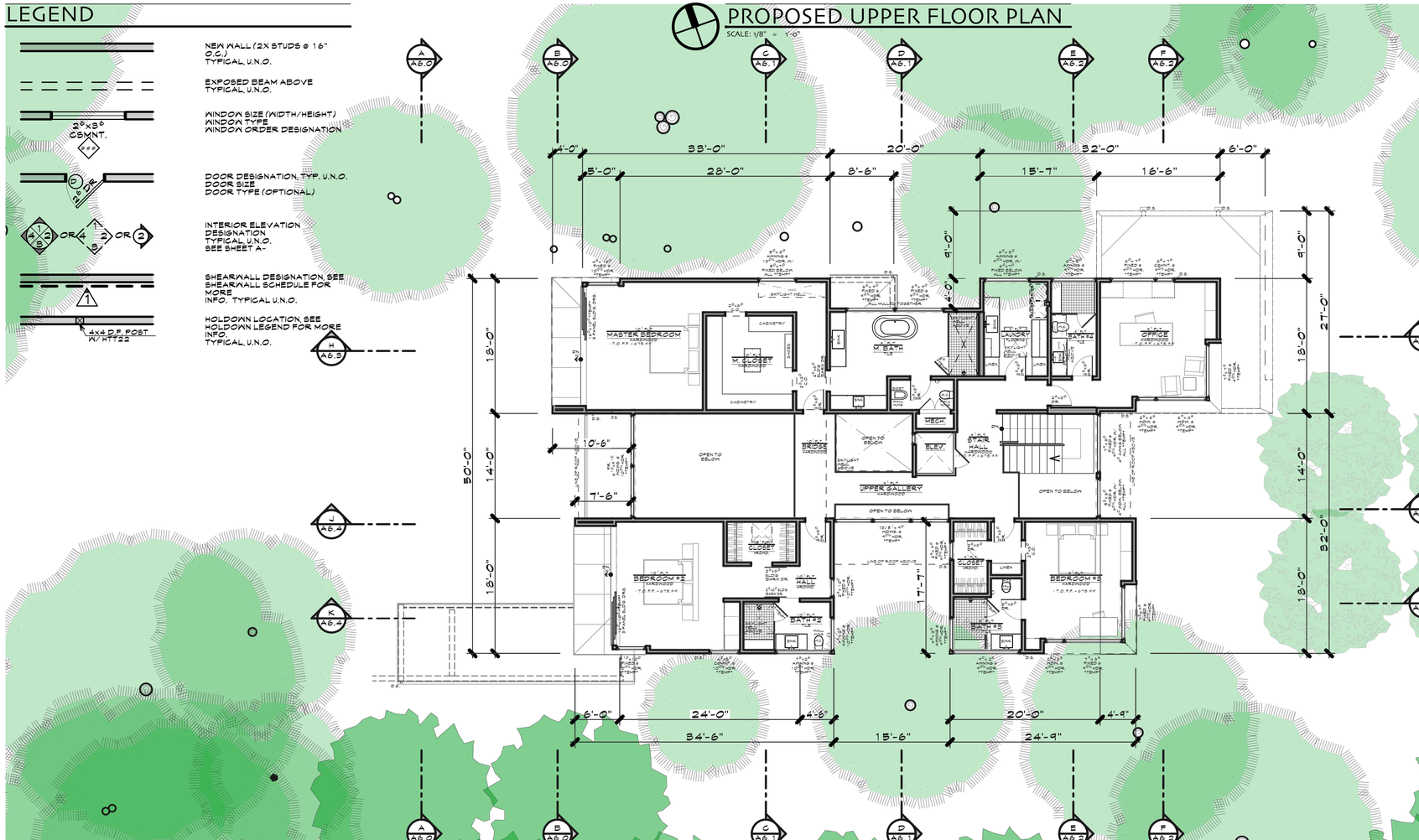
SHEARWALL DESIGNATION, SEE SHEARWALL SCHEDULE FOR MORE INFO. TYPICAL U.N.O.

HOLDOWN LOCATION, SEE HOLDOWN LEGEND FOR MORE INFO.
TYPICAL, U.N.O.

4x4 D.F. POST W/ HTT22

PROPOSED UPPER FLOOR PLAN

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



WINDOW SCHEDULE

NOTE TO GENERAL CONTRACTOR

contractor to verify brand name, sizes, types, & rough openings of all windows, exterior doors, & skylights, & shall notify the architect of any discrepancies from or changes to the plans. architect and owner must review and approve all windows, exterior doors, & skylights prior to placing final window/door order. if window order is not reviewed and approved by the architect, the architect assumes absolutely no responsibility whatsoever for any mistakes, errors, or omissions!

W1. Windows

see floor plan & exterior elevations for window sizes/types, typical, u.n.o.
U-Factor = 0.29
SHGC = 0.23

use dual insulating **low e²** glass (argon filled) at all new windows, typical, u.n.o.

a. typical windows:
Fleetwood® Windows & Doors, aluminum frame with thermal break in "Black Anodized Aluminum" (verify color prior to ordering)
530-T Series sliding windows.
450-T Series awning windows.
450-T Series casement windows.
450-T Series fixed windows.
3070-T Series multi track sliding windows.
b. typical screens:
provide fixed aluminum frame "**Ultra View**" insect screens at all operable windows, typical, u.n.o. prior to ordering windows & doors, typical.
c. verification:
verify all window sizes, color, jamb depths, hardware type, screens, glass, etc. w/owner & architect prior to ordering windows & doors.

W2. Tempered Glass
NOTE: ALL GLASS AT ALL WINDOWS IS ALL TEMPERED, BOTH PANES IN EVERY LOCATION.

a. typical tempered glass:
provide **tempered** safety glass per **2022 CRC, sec. R308.4** at all hazardous locations.
b. WUI Tempered Glass:
provide **tempered** safety glass at all exterior windows & doors per **Chapter 7A 2022 CBC**.

W3. Motorized Window Operators
Contractor to provide shop drawings, cut sheets as required. provide switched zones (verify in field) in one location.

see elevations and plan for location of high wall clerestory transom awning windows, and install electronic motorized operators **"Sentry II WLS" as manuf. by Functional Fenestration, Inc, or Marvel Electronic Operators,** or equiv. install per manuf. specs. with wall mounted control panels to control clerestory awnings. verify exact mounting locations with owner.

W4. Skylights

see skylight framing details for more info. typ., u.n.o. coordinate with owner on final configuration of skylight wells prior to framing.

a. fixed/operable skylights
Velux (Uniform ES Evaluation Report #0199) curb mounted bronze anodized aluminum clad wood frame skylight w/ dual **tempered** argon filled **"Comfort Plus" tinted** glazing. install per the manuf. specs. typical, u.n.o.
b. well and opening
gypsum wallboard o/ double 2x framing all around roof & ceiling openings, typical, u.n.o.

W5. Window Opening Control Devices (W.O.C.D.)
2022 CRC Sec. R312.2.1 & R312.2.2

see floor plans and exterior elevations for location of awning and casement windows with Fleetwood W.O.C.D.s, or equivalent. Must comply with **ASTM F2090**. Install per manufacturer specifications

CAL-GREEN NOTE

NFRC label which states the required U-value and SGHC for all fenestration products shall not be removed prior to inspection or removal by a building inspector, and shall reflect the values listed in the Title 24 energy report.

F19. Int. & Ext. Guardrails

final design/shop drawings for **interior & exterior guardrail design** to be handled as a **deferred submittal** by the General Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.

Optional Bid: for **M-Rail®** railing system (coord./verify with owner & interior designer).

guardrail to be 42" (min.) above deck/floor, and shall conform to **2022 IRC sec. R312, & 2022 CBC sec. 1013** & **sec. 1607A.7,** for 200 lb. concentrated loading applied in any direction at any point along top rail, & have attachment devices & supporting structure to transfer this loading to appropriate structural elements of the building.
tempered glass guard railing
with stainless steel guardrail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch'l. details for more info. typical, u.n.o. refer to floor plans, arch'l. details, int. & ext. elevations, and structural framing plans & details for more info. typical, u.n.o.

F20. Exterior Stair & Handrail

final design & shop drawings for exterior stair & handrail design to be handled as a **deferred submittal** by General Contractor & submitted to Bldg. Dept., owner, & architect for approval prior to fabrication, typical, u.n.o.

see interior and exterior elevations, and arch'l. details for more info., typical.

Optional Bid: for **M-Rail®** stair and railing system (coord./verify with owner & interior designer).

a. exterior stair
provide/install **(2) - 5/4x6 IPE** treads - (approx. 11½" run) & open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see exterior stair details for more info, typical, u.n.o.
b. exterior stair handrail
1½" wide x 1½" tall brushed **stainless steel** hand-rail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and welded to **steel C-channel ext. stair stringers**. install infill glass railing per manuf. specs. see arch'l. details for more info, typ, u.n.o.
c. handrail code specs
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1¼" nor more than 2" in cross sectional diameter, w/clearance from the wall per
2022 CBC sec. 1009.10, sec. 1012, & sec. 1607A.7, & 2022 CRC sec. R311.7.7.3, typical, u.n.o.

F21. Living Room Fireplace

confirm exact model# and features w/owner before ordering, typical, u.n.o.

ethanol/alcohol-burning linear fireplace by **EcoSmart™Fire model no. FLEX 50SS-**vent-less e-NRG Bioethanol-burning fireplace, typical, u.n.o. install per manuf. specs provide/ install stone slab and adhered stone veneer facing per interior elevations, typical, u.n.o.

F22. Elevator
see mech./elect. plan and details for more info.

contractor to provide and install 40" x 54" residential elevator by **National Wheel-O-Vator Company**, or equiv. elevator to be installed per manuf. specs. typical, u.n.o.

F14. Bath Accessories

see interior elevations for more info.
per Town of LG Disability Accessibility Standards.

F15. Finishes/Special Ceiling Treatments

a. finishes
verify w/interior designer and owner for all final wall, floor, & ceiling finishes, typical.
b. ceiling treatments
see framing plans, cross sections, interior elevations for all dropped and sofitted ceilings.

F16. Thermal Insulation and Sound Insulation

all batt insulation to be **Roxul ComfortBatt ®** unfaced formaldehyde-free **fire resistant** stone wool insulation, typical, u.n.o.

all open cell spray foam to be **Foam-Lok FL 5500 Open Cell Spray Foam Insulation by LaPolla Industries, Inc. (ICC-ES Eval. Report #ICC ESR-2847)** and installed by **Certified Nozzle men** for spraying of foam as required by code.

F17. Utilities/Meters/Panels

F18. Interior Stair & Handrail

final design & shop drawings for **interior stair & handrail design** to be handled as a **deferred submittal** by General Contractor & submitted to **Bldg. Dept.,** owner, & architect for approval prior to fabrication, typical, u.n.o.

see interior elevs., and arch't. details for more info., typical.

Optional Bid: for **M-Rail®** stair & handrail system (coord./verify with owner & interior designer).

verify all colors, sizes, finishes, etc. of bath accessories, towel bars, roll holders, medicine cabinets, etc. w/ interior designer, typ., u.n.o.
make sure to install 2x8 (min.) blocking @ +34" a.f.f. to centerline at all bath walls, water closets, showers, bathtubs, etc. suitable for future installation of grab bars if needed.

a. finishes
verify w/interior designer and owner for all final wall, floor, & ceiling finishes, typical.
b. ceiling treatments
see framing plans, cross sections, interior elevations for all dropped and sofitted ceilings.

a. floors:
install new **11" min. (R-40) open cell spray foam** between all floor joists over unheated garage below, typical, u.n.o.
b. new flat ceilings/roofs: (R-42)
3" thick (average) H-Shield Hunter Panels (R-17) over **7" min. (R-25) open cell spray foam** btwn. all roof/ceiling joists at flat roofs; typical, u.n.o.
c. exterior walls:
5¼" (R-23) Roxul ComfortBatt ® unfaced formaldehyde-free **fire resistant** stone wool batts @ all new 2x6 exterior walls (see wall details), typical, u.n.o.
d. interior sound walls :
5¼" (R-21) Roxul ComfortBatt ® unfaced formaldehyde-free **fire resistant** stone wool batts @ all interior "sound" walls and between flr. joists between floors where indicated on floor plan, typical, u.n.o.

see site plan and electrical/mechanical plan drawings and specs for more info., typical, u.n.o.

a. main interior stair
provide/install **(1) – 4x14 stain grade** treads - (approx. 11½" run) mounted to **HSS** steel tube stringer w/ open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see arch't. stair details for more info, typical, u.n.o.
b. interior stair handrail
1 3/4" wide x 1 1/4" tall brushed **stainless steel** handrail with 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) w/ (2)-**stainless steel** clamps welded to 1 1/2" sq. **stainless steel** newel posts @ 36" o.c. (max.). install infill glass railing per manuf. specs. see arch't. details for more info. typical, u.n.o.
c. handrail code specs
handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1¼" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012,** & **sec. 1607A.7,** and **2022 CRC, sec. R311.7.8,** typical, u.n.o.

FLOOR PLAN NOTES

F1. Egress

per **sec. R310.1, 2022 CRC.**

all bedrooms shall have windows or doors meeting egress requirements. all egress windows with two or more latches shall have the latches interconnected and operable from the lowest latch, typical, u.n.o.

F2. Splash Areas

per **sec. 1115B.2, sec. 1210.3** & **sec. 1405.2, 2022 CBC** & **sec. R702.3.8, 2022 CRC.**

NO GREENBOARD ALLOWED ! !
provide water resistant 5/8" **Dens-Shield** by **Georgia-Pacific®** or 1/4" **HardieBacker** board by **JamesHardie®,** o/ asphalt saturated felt paper, o/ 2x6/2x4 d.f. studs at all water splash areas, typical, u.n.o.

F3. Post In Wall
see foundation & framing plans, typical.

install double studs, 4x & 6x d.f. posts in walls where shown/required. see details & structural drawings for holdown specs, typical, u.n.o.

F4. One Hour Firewall at Walls/Ceilings Common to Garage & Under Stairs

Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. per **2022 CRC sec. R302.6** & **2022 CRC Table R302.6.**
fire-rated assemblies shall have all joints & nail heads taped with taping compound **per sec. 2508.4, 2022 CBC**

Dens-Glas® Gold Fireguard 5/8" **type 'x'** one hr. rated gyp. bd. at:
a. all walls & ceilings/beams of garage, or up common wall between garage & living space to underside of roof sheathing system, and
b. at all walls & ceilings of enclosed accessible storage space under interior stairs.
c. all penetrations in common firewall shall be protected by an approved firestop as tested per **2022 CRC sec. R302.4.1.2.** Ducts in the garage and ducts penetrating the common firewall shall be made of 26 gauge sheet metal or other approved materials, and shall have no openings into the garage **per 2022 CRC sec. R302.5.2.**

F5. Bathtubs/Showers and Enclosures

see plumbing sched. & elec. plan for more info.

all wall & ceiling tile to be installed o/ water-proofing, o/ moisture resistant underlayment (per note #**F2** above) to a height of 72" min. above drain inlet per **2022 CRC sec. R307.2** & **sec. R702.3.8.**

SEE TILE SPECS and PLUMBING FIXTURE SCHEDULE BY INTERIOR DESIGNER FOR MORE INFO.

a. Master Bath Shower :
job-built curb-less accessible shower w/ **QuARTz** linear slot drain by **ACO USA**, & stone tile floor, seat, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door/enclosures, typical, u.n.o.
b. Tub @ Master Bath :
free-standing 66" long x 34" soaking tub, and tile walls per ID drawings, typical, u.n.o.
c. Shower @ Baths #2, #3 & Guest Bath:
job-built curb-less accessible shower w/**QuARTz** linear slot drain by **ACO USA** and tile floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls and for entire bathroom floor where curbless showers occur. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.
d. Basement Shower & Pool Changing Rm. Shower :
job-built shower w/center drain & tile curb, floor, walls, niches, and **Chloraloy CPE** shower pan liner by **Noble Co.**, to +18" high min. on walls. provide/install clear 7/16" thick clear **TEMPERED Low Iron®** frameless glass door & enclosure, typical, u.n.o.

F6. Cabinetry, Fixtures, Closet Packages, and Appliances

contractor & cabinet maker shall verify all final design details & materials w/owner as well as all room dimensions & rough openings for fixtures & appliances, prior to fabrication & installation, typical, u.n.o.

F7. Crawl Space Access
per **sec. R408.4, 2019 CRC.**
FYI–there are no crawl spaces!

provide new 18" x 24" min. access where shown w/ double 2x6 framing all around opening. see foundation plan for more info. typical, u.n.o.

F8. Attic Access

per **sec. R807.1, 2022 CRC.**
FYI – there are no attics!

provide new 22"x30" (minimum) attic access at location indicated w/ 30" min. clear headroom in the attic space at, or above the access opening. provide/verify double 2x framing all around opening, typ., u.n.o.

F9. HVAC System
All Electric

Contractor to coordinate all supply and return air ducts, zones, thermostat locations, and power requirements of mechanical units and systems with Electrical, Mechanical & Plumbing contractors, typical. run line sets to connect to new a.c. condensers at side yards per site plan.

see electrical plan, and mech. plan, notes, and schedules by ?????? Engineering Consultants, Inc. for more info.

a. radiant floor heating system
high efficiency sealed combustion boiler for radiant floor heating at basement mech. rm. location. use **Eco Warm®** radiant panel floor heating system as specified on elec/mech plan, typical. Contractor to coordinate all heating, zones, thermostats, and power requirements of mechanical units, pumps, etc.
b. HRV/ERV Ventilation System
Heat/Energy Recovery Ventilation (HRV/ERV) unit in basement mech. room. Contractor to coordinate all supply/return ducts, zones, access, and power requirements of system with sub-contractors, typical.
c. main floor forced air HVAC cooling system
high efficiency Air to Water Heat Pump with Forced Air Handler at basement mech. room location w/ cooling coil to provide A.C. to main floor. all new ducting & registers are as shown on mech plan, typical.
d. upper floor attic/ceiling mounted mini-split heat pump forced air cooling system
install per manuf. specs. ceiling mounted mini-split "pancake" units. contractor to coordinate all for heating zones, ducting runs, return air, thermostat locations, power requirements, etc. run line sets to connect to new a.c. condenser per site plan.
e. exterior condensers:
provide/install condenser units at exterior locations indicated per plan. coordinate line sets installation as required, typical.

F10. Heat Pump Water Heaters & Radiant Floor Boiler Units
All Electric

see electrical/mechanical plan drawings, notes, and schedules by **????? Engineering Consultants, Inc.** for more info., typical, u.n.o.

F11. Conc. Porches & Patios/Walks

slope to drain @ ¼" per ft. away from structures.

paving shall be per **sec. R300.2, 2022 CRC** in accordance w/**2022 CGBSC, chapter 4, Division 4.1**, typical, u.n.o.

all stoops outside exterior doors shall conform to **2022 CBC sec. 1008.1.4** & **sec. 1008.1.5,** and **2022 CRC sec. R311.3**, typical.

install all concrete slabs o/ 15 mil **Stegowrap®** (or approved equiv.) vapor barrier, o/ **6" (min.)** of properly compacted clean **Caltran Class II** aggregate baserock, o/ properly compacted and pre-moistened subgrade per the soils report, by **GeoForensics, Inc.,** typical, u.n.o.
a. entry walk
limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab, typical, u.n.o.
b. all other patios and terraces
acid etched, or stained/scored concrete slab (color/score pattern per landscape drawings), typical, u.n.o.
c. OPTIONAL: stone paving at family rm./pool terrace:
OPTIONAL: to provide limestone/travertine pavers (size/pattern per architect/interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab per detail, typical, u.n.o.

F12. Plywood Shearwalls, & Hardi-Frames In Wall

see structural notes & details. provide shop drawings for review by engineer & architect prior to fabrication.

a. plywood shearwalls: see foundation & framing plans for all shearwall panels & holdown locations. see shearwall schedule for edge & field nailing for shearwall panels. typical, u.n.o.
b. Hardi-Frames: install prefab steel **Hardi-**frames in walls per manuf. specs and details where shown, typical, u.n.o.

F13. Steel Moment Frames, Beams and Columns

provide shop drwgs. for review by structural engineer & architect prior to fabrication.

W1xx___ structural steel **Wide Flange** columns with 2x **clear cedar** infill, or 6"x6" **HSS** steel columns set on welded base plate w/anchor bolts cast into concrete walls/piers at locations indicated, and new **Wide Flange** or **HSS** steel beams where shown. structural steel shall conform to **ASTM A-36** specs. & to the **AISC** specs. for fabrication & erection. steel finish and welds on exposed arch't. assemblies shall be ground smooth and finished per owner and architect's specs. see arch't. details and struct. framing plans & details by **ISE** for more info., typical, u.n.o

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G !
this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

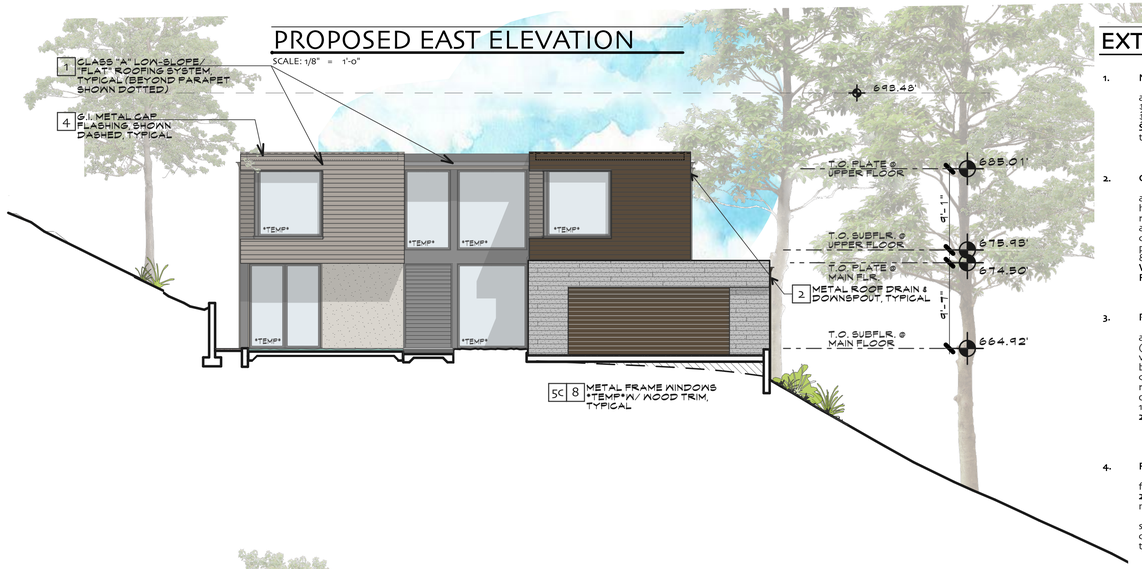
Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A2.2
Of date printed:	7/16/24

PROPOSED EAST ELEVATION

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



EXTERIOR ELEVATION NOTES

1. **New Class A Roofing System**
   all roofing to be installed over ½" **CD-X** plywood sheathing, or ¾" exterior grade **OSB Structural I** sheathing, typical, u.n.o.
   Class A - IB Roof Systems (UL-R15546 & ICC-ES Evaluation Report ESR-2852), "Tan" Single Ply Mechanically Attached Membrane Roofing System w/ heat welded seams, o/ **prefab. tapered H-Shield** polyisocyanurate foam core panels by **Hunter Panel ®**, or equiv. (¼" per foot min. slope), o/roof sheathing, typ., u.n.o. see roof framing plan & notes, sheathing specs, and details for more info., typical, u.n.o.

2. **Gutters & Downspouts**
   all gutters and roof drains to have screen mesh covers as required to prevent accumulation of leaves & debris in gutters and drains per **sec. R327.5.4, 2022 CRC**, & **Chapter 7A, 2022 CBC** for a **Wildland-Urban Interface Fire Hazard Area**
   see site plan/civil drawings by **Lea & Braze** for more surface drainage info., and soils report by **GeoForensics, Inc.**, typical, u.n.o.
   a. roof drains
   roof drains, and roof overflow drains as manuf. by **PortalsPlus ®** (or equiv.), and installed per manuf. specs. see roof plan for location of all roof and overflow roof drain locations. typical, u.n.o.
   b. typical downspouts
   3"x3" rectangular 24 ga. min. **bonderized** metal downspouts. terminate all downspouts at 4" dia. **HDPE** tight lines, run to energy dissipater locations per Site Plan/Civil drawings, typical, u.n.o.

3. **Roof Jacks**
   all new exterior vents (combustion air, exhaust vents, found. vents, etc.)shall be covered w/ non-combustible, corrosion-resistant wire mesh w/ mesh openings of 1/16" (min.) and 1/8" (max.) per **sec. R337.6.2, 2022 CRC**, typical, u.n.o.
   group plumbing & exhaust vents to optimize space for future PV solar panels, typical, u.n.o
   a. exhaust vents
   all exhaust vents shall be located a min. of 3' from or 1' above all roof or wall openings per **2022 CMC sec. 504.5, sec. 510.8.2** & **sec. 510.8.3**, provide neoprene gaskets & g.i. roof jack/ rain cap. paint to match roof color & locate where not visible from street wherever possible. typical, u.n.o.
   b. plumbing vents
   all plumbing vents to be located a min. of 10' from or 3' above roof or wall openings per **2022 CPC**, **sec. 510.5.2**, **sec. 906.1**, & **sec. 906.2**, typical, u.n.o.

4. **Flashing**
   flashing per **sec. R905.12, 2022 CRC** for single ply membrane roofing systems
   see roof plan and arch'l. details for more info., typical, u.n.o.
   a. step & pitchbreak flashing
   single ply roof membrane cover strip (hot air welded per manuf. specs.) per **sec. R905.12, 2022 CRC**, typical, u.n.o.
   b. flashing installation
   install flashing in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing. components per **2022 CRC sec. R703.8**, typical, u.n.o.
   c. window/door head flashing
   26 ga. g.i. "Z" flashing above windows & doors where occurs per details, typical, u.n.o.

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

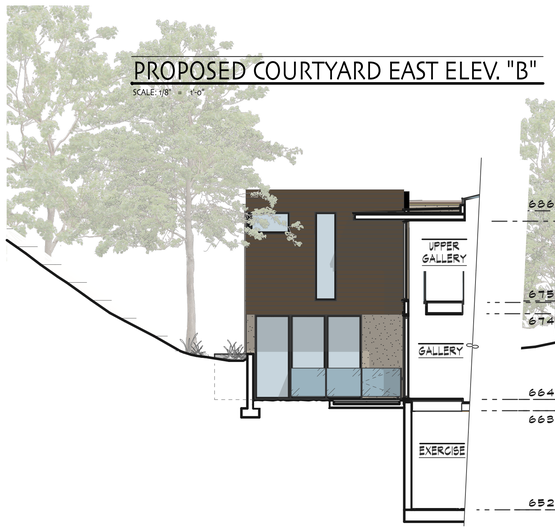
LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

PROPOSED COURTYARD EAST ELEV. "B"

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



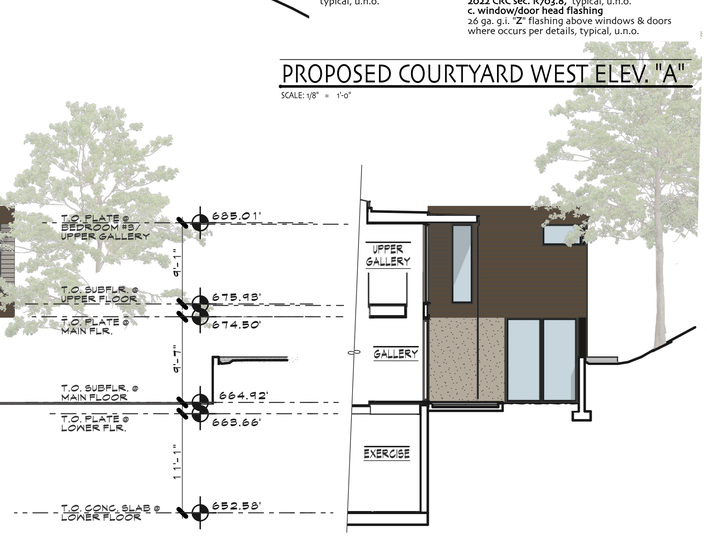
PROPOSED SOUTH ELEVATION

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



PROPOSED COURTYARD WEST ELEV. "A"

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



MATERIALS COLOR BOARD

STUCCO SIDING



TYPE: 3 COAT
COLOR: CITY DWELLER
LRV: 51
SOURCE: KELLY MOORE (KM4941-2)

EXTERIOR WOOD SIDING



TYPE: CYPRESS
COLOR: TIGER SMOOTH HICKORY FINISH
LRV: 14
SOURCE: DELTA MILLWORKS (WRC SSB-ATLAS)

CONCRETE



TYPE: 3 POURED-IN-PLACE: BOARD FORMED
COLOR: GREY
LRV: 29
SOURCE:

GLASS



TYPE: LOW-E
COLOR: CLEAR
LRV: 7
SOURCE: SKYFRAME

ALUMINUM



TYPE: ANODIZED ALUMINUM
COLOR: BLACK
LRV: 6
SOURCE: FLEETWOOD

17. **New Entry Door & Sidelites**
    Must meet **WUI Code** for fire resistance.

18. **Overhead Garage Doors**
    see door schedule for more info, typical, u.n.o.

19. **Steel Moment Frames, Beams and Columns**
    provide shop drwgs. for review by structural engineer & architect prior to fabrication.

20. **Skylights**
    see window schedule and skylight framing details for more info. typ., u.n.o.
    provide allowance/install new **pivot hinge** main entry door and tempered glass sidelite at location indicated. see door schedule for more info, typical, u.n.o.
    provide/install new overhead garage doors with tempered glass at locations indicated. must meet **WUI Code** for fire resistance, typical, u.n.o.
    W10x___ steel columns, existing and new steel beams where shown. structural steel shall conform to **ASTM A-36** specifications & to the **AISC** specifications for fabrication & erection. see architectural details and structural framing plans & details by **ISE** for more info, typ., u.n.o.
    a. fixed skylights
    Velux curb mounted bronze anodized aluminum clad wood frame skylight w/ dual **tempered** argon filled "**Comfort Plus**" **tinted** glazing. install per the manuf. specs. typical, u.n.o.
    b. well and opening
    gypsum wallboard o/ double 2x framing all around roof & ceiling openings, typical, u.n.o.

13. **Exterior Stair & Handrail**
    see details for more info.
    final design & shop drawings for **ext. stair & handrail design** to be handled as a **deferred submittal** by General Contractor & submitted to **Bldg. Dept.,** owner, & architect for approval prior to fabrication, typical, u.n.o.
    refer to floor plan notes and cross section notes for more info.
    a. exterior stair
    provide/install **(2) - 5/4x6 IPE** treads - (approx. 11½" run) & open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see exterior stair details for more info, typical, u.n.o.
    b. exterior stair handrail
    1 3/4" wide x 1 1/4" tall brushed **stainless steel** handrail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and welded to **steel C-channel ext. stair stringers**. install infill glass railing per manuf. specs. see arch'l. details for more info. typ., u.n.o.
    c. handrail code specs
    handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1½" nor more than 2" in cross sectional diameter. w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012**, & **sec. 1607A.7**, and **2022 CRC, sec. R311.7.8,** typical, u.n.o.

14. **Lightwell/Patio Ext. Guardrails**
    final design & shop drawings for **exterior guardrail design** to be handled as a **deferred submittal** by the Contractor & submitted to **Bldg. Dept.,** owner, & architect for approval prior to fabrication, typical, u.n.o.
    refer to floor plan notes, cross section notes, arch'l. details, and structural framing plans & details for more info.
    a. tempered glass guardrail:
    42" tall guardrail w/ **stainless steel** cap rail on 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and installed per manuf. specs., typical, u.n.o. guardrail system shall conform to **2022 IRC, sec. R312,** & **2022 CBC sec. 1013** & **sec. 1607A.7** typical.

15. **Retaining Walls and Landscape Walls**
    see geotechnical report by **GeoForensics, Inc.** & grading and drainage plan by **?????** for more info.
    see landscape architect's drawings, details, & cross sections for more details & specs, typical, u.n.o.
    a. board formed concrete retaining walls
    install new board formed poured in place concrete retaining walls where shown. see structural engineering drawings and details for more info, typical, u.n.o.
    b. board formed concrete landscape walls
    3'-0" max. height **board formed concrete -** see landscape drawings for more info, typical, u.n.o.
    c. french drains at all retaining walls
    4" dia. perforated pipe at base of retaining walls. slope @ 1% min., connect to underground tight line & daylight at energy dissipaters as shown on grading plan.

16. **Attic Exhaust Vents**
    see cross sections for more info.
    none required or provided at new roofs @ living areas per **sec. 806.4, 2022 CRC.** use open cell spray polyurethane foam insulation at attic/flat roof systems per insulation specs.

8. **Windows**
    refer to window schedule for more info. typical
    Fleetwood® Black Anodized aluminum frame finish with **tempered** dual glazed **Cardinal 366/189 low e³** glass, typical, u.n.o.
    450-T Series awning, casement & fixed windows
    530-T Series sliding windows, typical u.n.o.

9. **Exterior Sliding Patio Doors**
    verify color prior to ordering - refer to floor plan and door schedule for more info. typical.
    a. Lift & Slide doors:
    Weiland Doors® "Hidden Threshold" Dark Bronze Anodized aluminum frame lift & slide sliding glass doors, w/ **tempered** dual glazed **Cardinal 366/189 low "e"** glass, typical, u.n.o.
    b. Multi-Track Sliding Glass Doors :
    Fleetwood 3070-T Series black anodized aluminum frame Multi Track sliding patio doors, w/**tempered** dual glazed **Cardinal 366/189 low "e" glass,** typical, u.n.o.

10. **New Conc. Stoops & Patios/Walks**
    slope to drain @ ¼" per ft. away from structures.
    paving shall be per **sec. R300.2, 2022 CRC** in accordance w/**2022 CGBSC, chapter 4, Division 4.1**, typ., u.n.o.
    all stoops outside exterior doors shall conform to **2022 CBC, sec. 1008.1.4** & **sec. 1008.1.5,** and **2022 CRC, sec. R311.3,** typical.
    install all concrete slabs o/ 15 mil **StegoWrap®** (or approved equiv.) vapor barrier, o/ **6" (min.)** of properly compacted clean aggregate base, o/ properly compacted and pre-moistened subgrade per the soils report, by **GeoForensics, Inc.,** typical, u.n.o.
    a. entry walk
    limestone/travertine pavers (size/pattern per architect/interior designer) o/ 1" mortar bed o/ 5" thick reinf. concrete slab, typical, u.n.o.
    b. all other patios and terraces
    stained/scored concrete slab (color/score pattern per landscape drawings), typical, u.n.o.
    c. OPTIONAL: stone paving at family rm./pool terrace:
    OPTIONAL: to provide and install limestone/ travertine pavers (size/pattern per architect/
    interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab per detail, typical, u.n.o.

11. **Site Grading**
    see site plan for more info.
    a. existing grade to remain as much as possible – minimal grading as required and as shown on site plan for new additions, typical u.n.o.
    b. finish grade to slope 5% min. away from base of building at soil and 2% min. at paving, per **sec. 4.106.3, 2022 CGBSC**. see also grading and drainage plan for additional info., typical, u.n.o.

12. **Address Numbers**
    per **2022 CRC sec. R319.1, 2022 CBC sec. 501.2,** & **2022 CFC sec. 505.**
    approved **illuminated** address numbers shall be placed (or be maintained) on the building in such a position as to be plainly visible and legible from the street, or road fronting the property, and contrasting to its back-ground. address numbers shall be a min. of 4" high, w/ a minimum **illuminated** stroke width of ½", typical, u.n.o.

5. **Exterior Siding & Trim**
    see arch'l. details for more info. & verify wood trim sizes and reglet model # s w/ architect prior to ordering & installation. typical, u.n.o.
    install gyp. bd. per **sec. R702.3, 2022 CRC.**
    all new siding to be installed o/(1") 1/2" **CD-X** plywood, or 1/2" ext. grade **OSB Struct. I** sheathing per **sec. R703.2** & **sec. R703.6 2022 CRC** o/ new 2x6 d.f. studs @ 16" o.c., typical, u.n.o.
    if applicable at rated assemblies, increase the length of the fasteners and screws @ ext. trim/siding by the thickness of the plywood where plywood is installed under the 5/8" **type "x"** gyp. board per **2022 CBC, Table 720.1(2), footnote L**.
    provide option for **Benjamin Obdyke Home Slicker® Classic** rainscreen, or equiv.
    a. exterior stucco siding:
    7/8" thick min. 3-coat stucco w/3rd coat to be **BMI/Sika®** BMI 570 Acrylic Fine Finish with steel trowel smooth texture, o/ heavy duty wire lath, o/ anti-fracture membrane, o/ 2 layers **class "d"** bldg paper (or **Tyvek®**), o/ wall sheathing w/weep screed @ base per **2022 CRC sec. R703.6.2.1,** typical, u.n.o.
    b. horizontal wood siding :
    1x6 **kiln-dried stain grade** t&g square slot groove **cedar** siding, o/ 2 layers **kraft** waterproof building paper (or **Tyvek®**), o/ **Dens-Glass Gold Fireguard** 5/8" type 'x' one hr. rated gyp. bd., o/ wall sheathing, typical, u.n.o.
    c. exterior window trim:
    1x / 2x kiln-dried **stain grade clear cedar** trim (back-stained) @ new windows & doors, and misc. trim where occurs, typical, u.n.o.
    d. Reglet Molding trim:
    provide/install **Fry Reglet®, Stockton Metal Products®, Schluter®,** etc. specialty metal edges, reveals, trims, & moldings at locations indicated per arch'l. details, typical, u.n.o.
    e. exterior window header trim:
    bronze anodized aluminum (to match windows) custom made break metal caps as occurs, typical, u.n.o
    a. surface preparation:
    thoroughly clean exterior surfaces of all dirt, dust, grease, etc. prior to painting/staining. thoroughly caulk, spackle, fill, and sand smooth all cracks, splits, holes, etc. at all affected areas prior to painting, typical, u.n.o.
    b. stucco finish:
    provide one coat primer, two coats **SAFECOAT by AFM,** or equiv. flat latex **zero VOC** at all stucco siding, and wood trim, etc.
    b. exterior cedar siding & trim:
    provide two coats **Cabot's Semi-Transparent stain,** "Slate Gray" at exterior siding, etc.
    c. exterior trim:
    back-prime all trim (as occurs) prior to installation. provide one coat primer, two coats semi-gloss paint at all eaves, trim, soffits, columns, window/door trim, etc.

6. **Exterior Painting/Staining**
    provide paint sample mock ups on stucco samples, and stain sample mock ups on cedar for approval by owner, interior designer, & architect, typical, u.n.o.
    apply all paint and stain finishes strictly per manufacturer's specs, typical, u.n.o.

7. **Fascia Board & Eaves**
    see arch'l. eave details & struct. framing plans and details for more info., typical, u.n.o.
    kiln-dried 2x clear smooth **cedar** (or **mahogany**) fascia board, w/ 1x6 clear **stain grade cedar** t&g decking w/ square slot groove, o/ **Dens-Glas® Gold Fireguard** 5/8" **type 'x'** one hr.-rated gyp. board o/ **1 3/4" x 7 1/4" LVL** or 2x8 **d.f. no. 2** rafters @ spacing per struct. framing plans, typical, u.n.o.

TOOFAN RESIDENCE

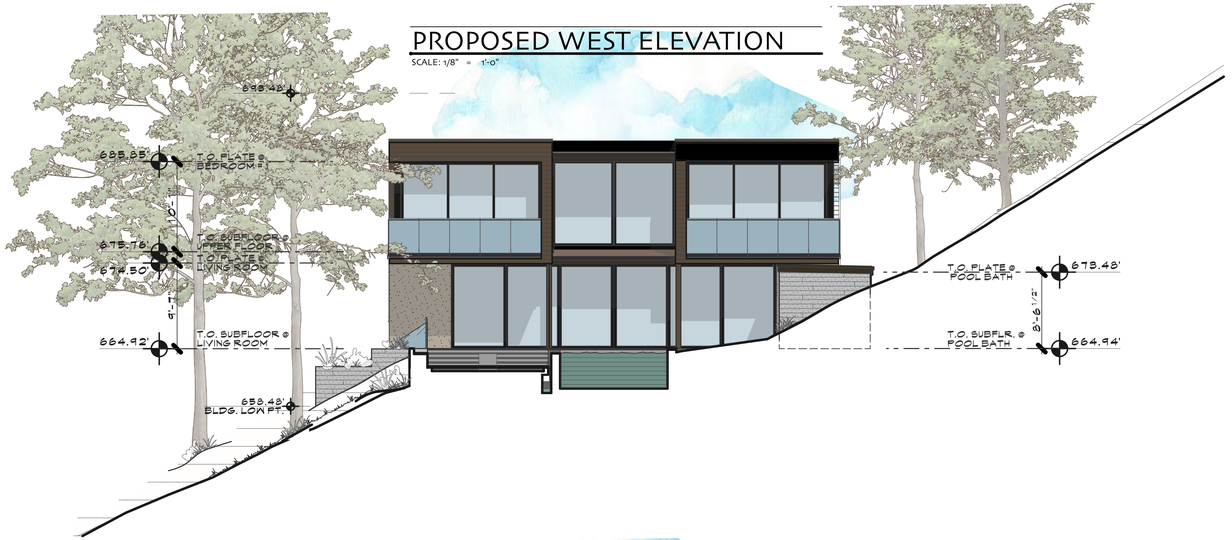
Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A4.0
Of date printed:	7/16/24

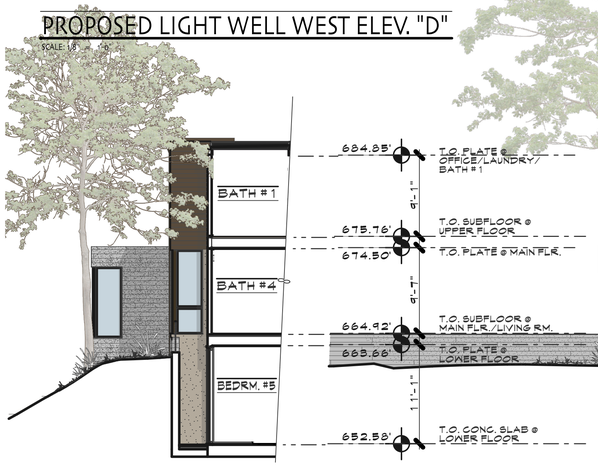
PROPOSED WEST ELEVATION

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



PROPOSED LIGHT WELL WEST ELEV. "D"

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



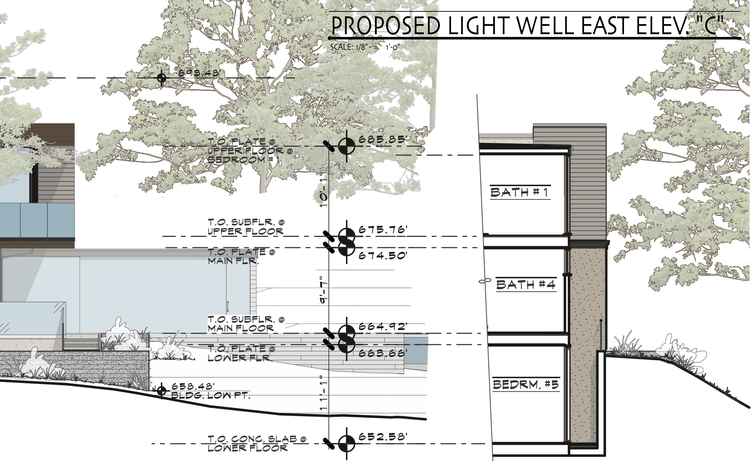
PROPOSED NORTH ELEVATION

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



PROPOSED LIGHT WELL EAST ELEV. "C"

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



EXTERIOR ELEVATION NOTES

1. **New Class A Roofing System**

   all roofing to be installed over ½" **CD-X** plywood sheathing, or ¾" exterior grade **OSB Structural I** sheathing, typical, u.n.o.

   Class A - IB Roof Systems (UL-R15546 & ICC-ES Evaluation Report ESR-2852), "Tan" Single Ply Mechanically Attached Membrane Roofing System w/ heat welded seams, o/ **prefab. tapered H-Shield** polyisocyanurate foam core panels by **Hunter Panel ®**, or equiv. (1" per foot min. slope), o/roof sheathing, typ., u.n.o. see roof framing plan & notes, sheathing specs, and details for more info., typical, u.n.o.

2. **Gutters & Downspouts**

   all gutters and roof drains to have screen mesh covers as required to prevent accumulation of leaves & debris in gutters and drains per **sec. R327.5.4, 2022 CRC**, & **Chapter 7A, 2022 CBC** for a **Wildland-Urban Interface Fire Hazard Area**

   see site plan/civil drawings by **Lea & Braze** for more surface drainage info., and soils report by **GeoForensics, Inc.**, typical, u.n.o.
   a. roof drains
   roof drains, and roof overflow drains as manuf. by **PortalsPlus ®** (or equiv.), and installed per manuf. specs. see roof plan for location of all roof and overflow roof drain locations. typical, u.n.o.
   b. typical downspouts
   3"x3" rectangular 24 ga. min. **bonderized** metal downspouts. terminate all downspouts at 4" dia. **HDPE** tight lines, run to energy dissipater locations per Site Plan/Civil drawings, typical, u.n.o.

3. **Roof Jacks**

   all new exterior vents (combustion air, exhaust vents, found. vents, etc.)shall be covered w/ non-combustible, corrosion-resistant wire mesh w/ mesh openings of 1/16" (min.) and 1/8" (max.) per **sec. R337.6.2, 2022 CRC**, typical, u.n.o.

   group plumbing & exhaust vents to optimize space for future PV solar panels, typical, u.n.o
   a. exhaust vents
   all exhaust vents shall be located a min. of 3' from or 1' above all roof or wall openings per **2022 CMC sec. 504.5, sec. 510.8.2** & **sec. 510.8.3**, provide neoprene gaskets & g.i. roof jack/ rain cap. paint to match roof color & locate where not visible from street wherever possible. typical, u.n.o.
   b. plumbing vents
   all plumbing vents to be located a min. of 10' from or 3' above roof or wall openings per **2022 CPC**, **sec. 510.5.2**, **sec. 906.1**, & **sec. 906.2**, typical, u.n.o.

4. **Flashing**

   flashing per **sec. R905.12, 2022 CRC** for single ply membrane roofing systems

   see roof plan and arch'l. details for more info., typical, u.n.o.

   a. step & pitchbreak flashing
   single ply roof membrane cover strip (hot air welded per manuf. specs.) per **sec. R905.12, 2022 CRC**, typical, u.n.o.
   b. flashing installation
   install flashing in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing. components per **2022 CRC sec. R703.8**, typical, u.n.o.
   c. window/door head flashing
   26 ga. g.i. "**Z**" flashing above windows & doors where occurs per details, typical, u.n.o.

17. **New Entry Door & Sidelites**

    Must meet **WUI Code** for fire resistance.

    provide allowance/install new **pivot hinge** main entry door and tempered glass sidelite at location indicated. see door schedule for more info, typical, u.n.o.

18. **Overhead Garage Doors**

    see door schedule for more info, typical, u.n.o.

    provide/install new overhead garage doors with tempered glass at locations indicated. must meet **WUI Code** for fire resistance, typical, u.n.o.

19. **Steel Moment Frames, Beams and Columns**

    provide shop drwgs. for review by structural engineer & architect prior to fabrication.

    W10x___ steel columns, existing and new steel beams where shown. structural steel shall conform to **ASTM A-36** specifications & to the **AISC** specifications for fabrication & erection. see architectural details and structural framing plans & details by **ISE** for more info, typ., u.n.o.

20. **Skylights**

    see window schedule and skylight framing details for more info. typ., u.n.o.

    a. fixed skylights
    Velux curb mounted bronze anodized aluminum clad wood frame skylight w/ dual **tempered** argon filled "**Comfort Plus**" **tinted** glazing. install per the manuf. specs. typical, u.n.o.
    b. well and opening
    gypsum wallboard o/ double 2x framing all around roof & ceiling openings, typical, u.n.o.

13. **Exterior Stair & Handrail**

    see details for more info.

    final design & shop drawings for **ext. stair & handrail design** to be handled as a **deferred submittal** by General Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.

    refer to floor plan notes and cross section notes for more info.
    a. exterior stair
    provide/install **(2) - 5/4x6 IPE** treads - (approx. 11½" run") & open risers (7.5"-max.) per **sec. 1009, 2022 CBC** & **sec. R311.7, 2022 CRC.** see exterior stair details for more info, typical, u.n.o.
    b. exterior stair handrail
    1 3/4" wide x 1 1/4" tall brushed **stainless steel** handrail, o/ custom 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and welded to **steel C-channel ext. stair stringers**. install infill glass railing per manuf. specs. see arch'l. details for more info. typ., u.n.o.
    c. handrail code specs
    handrail to be btwn. 34" & 38" above nosing of the tread & be continuous for full length of stair. also, hand grip portion of handrail to be not less than 1¼" nor more than 2" in cross sectional diameter, w/clearance from the wall per **2022 CBC sec. 1009.10, sec. 1012**, & **sec. 1607.7**, and **2022 CRC, sec. R311.7.8**, typical, u.n.o.

14. **Lightwell/Patio Ext. Guardrails**

    final design & shop drawings for **exterior guardrail design** to be handled as a **deferred submittal** by the Contractor & submitted to **Bldg. Dept.**, owner, & architect for approval prior to fabrication, typical, u.n.o.

    refer to floor plan notes, cross section notes, arch'l. details, and structural framing plans & details for more info.
    a. tempered glass guardrail:
    42" tall guardrail w/ **stainless steel** cap rail on 9/16" thick **low iron tempered** glass panels, by **ViewRail®** (or equiv.) with (2)-**stainless steel** clamps (per manuf. specs.) welded to 1½" sq. **stainless steel** newel posts @ 36" o.c. (max.), and installed per manuf. specs., typical, u.n.o. guardrail system shall conform to **2022 IRC, sec. R312**, & **2022 CBC sec. 1013** & **sec. 1607A.7** typical.

15. **Retaining Walls and Landscape Walls**

    see geotechnical report by **GeoForensics, Inc.** & grading and drainage plan by **?????** for more info.
    see landscape architect's drawings, details, & cross sections for more details & specs, typical, u.n.o.

    a. board formed concrete retaining walls
    install new board formed poured in place concrete retaining walls where shown. see structural engineering drawings and details for more info. typical, u.n.o.
    b. board formed concrete landscape walls
    3'-0" max. height **board formed concrete -** see landscape drawings for more info, typical, u.n.o.
    c. french drains at all retaining walls
    4" dia. perforated pipe at base of retaining walls. slope @ 1% min., connect to underground tight line & daylight at energy dissipaters as shown on grading plan.

16. **Attic Exhaust Vents**

    see cross sections for more info.

    none required or provided at new roofs @ living areas per **sec. 806.4, 2022 CRC.** use open cell spray polyurethane foam insulation at attic/flat roof systems per insulation specs.

8. **Windows**

   refer to window schedule for more info. typical

   Fleetwood® Black Anodized aluminum frame finish with **tempered** dual glazed **Cardinal 366/189 low e²** glass, typical, u.n.o.
   450-T Series awning, casement & fixed windows
   530-T Series sliding windows, typical u.n.o.

9. **Exterior Sliding Patio Doors**

   verify color prior to ordering - refer to floor plan and door schedule for more info. typical.

   a. Lift & Slide doors:
   Weiland Doors@ "Hidden Threshold" Dark Bronze Anodized aluminum frame lift & slide sliding glass doors, w/ **tempered** dual glazed **Cardinal 366/189 low "e"** glass, typical, u.n.o.
   b. Multi-Track Sliding Glass Doors :
   Fleetwood 3070-T Series black anodized aluminum frame Multi Track sliding patio doors, w/**tempered** dual glazed **Cardinal 366/189 low "e" glass,** typical, u.n.o.

10. **New Conc. Stoops & Patios/Walks**

    slope to drain @ ¼" per ft. away from structures.

    paving shall be per **sec. R300.2, 2022 CRC** in accordance w/**2022 CGBSC, chapter 4, Division 4.1**, typ., u.n.o.

    all stoops outside exterior doors shall conform to **2022 CBC, sec. 1008.1.4** & **sec. 1008.1.5,** and **2022 CRC, sec. R311.3**, typical.

    install all concrete slabs o/ 15 mil **StegoWrap®** (or approved equiv.) vapor barrier, o/ **6" (min.)** of properly compacted clean aggregate base, o/ properly compacted and pre-moistened subgrade per the soils report, by **GeoForensics, Inc.,** typical, u.n.o.
    a. entry walk
    limestone/travertine pavers (size/pattern per architect/interior designer) o/ 1" mortar bed o/ 5" thick reinf. concrete slab, typical, u.n.o.
    b. all other patios and terraces
    stained/scored concrete slab (color/score pattern per landscape drawings), typical, u.n.o.
    c. OPTIONAL: stone paving at family rm./pool terrace:
    OPTIONAL: to provide and install limestone/ travertine pavers (size/pattern per architect/

    interior designer) set o/ 1" mortar bed, o/ 5" thick reinf. concrete slab per detail, typical, u.n.o.

11. **Site Grading**

    see site plan for more info.

    a. existing grade to remain as much as possible – minimal grading as required and as shown on site plan for new additions, typical u.n.o.
    b. finish grade to slope 5% min. away from base of building at soil and 2% min. at paving, per **sec. 4.106.3**, **2022 CGBSC**. see also grading and drainage plan for additional info., typical, u.n.o.

12. **Address Numbers**

    per **2022 CRC sec. R319.1**, **2022 CBC sec. 501.2,** & **2022 CFC sec. 505.**

    approved **illuminated** address numbers shall be placed (or be maintained) on the building in such a position as to be plainly visible and legible from the street, or road fronting the property, and contrasting to its back-ground. address numbers shall be a min. of 4" high, w/ a minimum **illuminated** stroke width of ½", typical, u.n.o.

5. **Exterior Siding & Trim**

   see arch'l. details for more info. & verify wood trim sizes and reglet model #'s w/ architect prior to ordering & installation. typical, u.n.o.

   install gyp. bd. per **sec. R702.3, 2022 CRC.**

   all new siding to be installed o/(1) 1/2" **CD-X** plywood, or 1/2" ext. grade **OSB Struct. I** sheathing per **sec. R703.2** & **sec. R703.6 2022 CRC** o/ new 2x6 d.f. studs @ 16" o.c., typical, u.n.o.

   if applicable at rated assemblies, increase the length of the fasteners and screws @ ext. trim/siding by the thickness of the plywood where plywood is installed under the 5/8" **type "x"** gyp. board per **2022 CBC, Table 720.1(2), footnote L**.

6. **Exterior Painting/Staining**

   provide paint sample mock ups on stucco samples, and stain sample mock ups on cedar for approval by owner, interior designer, & architect, typical, u.n.o.

   apply all paint and stain finishes strictly per manufacturer's specs, typical, u.n.o.

7. **Fascia Board & Eaves**

   see arch'l. eave details & struct. framing plans and details for more info., typical, u.n.o.

   provide option for **Benjamin Obdyke Home Slicker® Classic** rainscreen, or equiv.
   a. exterior stucco siding:
   7/8" thick min. 3-coat stucco w/3rd coat to be **BMI/Sika®** BMI 550 Acrylic Fine Finish with steel trowel smooth texture, o/ heavy duty wire lath, o/ anti-fracture membrane, o/ 2 layers **class "d"** bldg paper (or **Tyvek®**), o/ wall sheathing w/deep screed @ base per **2022 CRC sec. R703.6.2.1,** typical, u.n.o.
   b. horizontal wood siding :
   1x6 **kiln-dried stain grade** t&g square slot groove **cedar** siding, o/ 2 layers **kraft** waterproof building paper (or **Tyvek®**), o/ **Dens-Glass Gold Fireguard** 5/8" type 'x' one hr. rated gyp. bd., o/ wall sheathing, typical, u.n.o.
   c. exterior window trim:
   1x / 2x kiln-dried **stain grade clear cedar** trim (back-stained) @ new windows & doors, and misc. trim where occurs, typical, u.n.o.
   d. Reglet Molding trim:
   provide/install **Fry Reglet®, Stockton Metal Products®, Schluter®,** etc. specialty metal edges, reveals, trims, & moldings at locations indicated per arch'l. details, typical, u.n.o.
   e. exterior window header trim:
   bronze anodized aluminum (to match windows) custom made break metal caps as occurs, typical, u.n.o

   a. surface preparation:
   thoroughly clean exterior surfaces of all dirt, dust, grease, etc. prior to painting/staining. thoroughly caulk, spackle, fill, and sand smooth all cracks, splits, holes, etc. at all affected areas prior to painting, typical, u.n.o.
   b. stucco finish:
   provide one coat primer, two coats **SAFECOAT by AFM,** or equiv. flat latex **zero VOC** at all stucco siding, and wood trim, etc.
   b. exterior cedar siding & trim:
   provide two coats **Cabot's Semi-Transparent stain,** "Slate Gray" at exterior siding, etc.
   c. exterior trim:
   back-prime all trim (as occurs) prior to installation. provide one coat primer, two coats semi-gloss paint at all eaves, trim, soffits, columns, window/door trim, etc.

   kiln-dried 2x clear smooth **cedar** (or **mahogany**) fascia board, w/ 1x6 clear **stain grade cedar** t&g decking w/ square slot groove, o/ **Dens-Glas® Gold Fireguard** 5/8" **type 'x'** one hr.-rated gyp. board o/ **1 3/4" x 7 1/4" LVL** or 2x8 **d.f. no. 2** rafters @ spacing per struct. framing plans, typical, u.n.o.

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A4.1
Of date printed:	7/16/24

LIGHT REFLECTION VALUE (LRV) CALCULATIONS
TOOFAN RESIDENCE

WHOLE BUILDING LRV

Material	area	Total Area of Material (s.f.)		LRV		Total Area of Material x LRV
Stucco	01	1191.74	x	30	=	35,752.13
Wood	02	2,480.56	x	15	=	37,208.40
Concrete	03	601.16	x	30	=	18,034.80
Glass	04	2621.83	x	7	=	18,352.74
Aluminum	05	729.25	x	6	=	4,375.50
TOTALS		**7,624.53 s.f.**				**113,723.57**
Avg. LRV = Total Area / (Total Area x LRV)		**7,624.53**	**/**	**113,723.57**	**=**	**15**

Material Areas

EAST ELEVATION

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	86.10
Wood	02	Area Calculation from CAD	=	537.48
Concrete	03	Area Calculation from CAD	=	147.68
Glass	04	Area Calculation from CAD	=	325.05
Aluminum	05	Area Calculation from CAD	=	106.50
TOTAL AREA				**1,202.90 s.f.**

SOUTH ELEVATION

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	195.95
Wood	02	Area Calculation from CAD	=	553.27
Concrete	03	Area Calculation from CAD	=	20.13
Glass	04	Area Calculation from CAD	=	638.59
Aluminum	05	Area Calculation from CAD	=	225.22
TOTAL AREA				**1,633.16 s.f.**

WEST ELEVATION "A"

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	78.67
Wood	02	Area Calculation from CAD	=	172.00
Concrete	03	Area Calculation from CAD	=	0.00
Glass	04	Area Calculation from CAD	=	86.40
Aluminum	05	Area Calculation from CAD	=	34.44
TOTAL AREA				**371.51 s.f.**

EAST ELEVATION "B"

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	34.37
Wood	02	Area Calculation from CAD	=	199.95
Concrete	03	Area Calculation from CAD	=	0.00
Glass	04	Area Calculation from CAD	=	135.63
Aluminum	05	Area Calculation from CAD	=	29.41
TOTAL AREA				**399.36 s.f.**

WEST ELEVATION

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	59.02
Wood	02	Area Calculation from CAD	=	209.46
Concrete	03	Area Calculation from CAD	=	41.24
Glass	04	Area Calculation from CAD	=	701.91
Aluminum	05	Area Calculation from CAD	=	131.43
TOTAL AREA				**1,143.06 s.f.**

NORTH ELEVATION

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	618.08
Wood	02	Area Calculation from CAD	=	691.34
Concrete	03	Area Calculation from CAD	=	307.16
Glass	04	Area Calculation from CAD	=	695.04
Aluminum	05	Area Calculation from CAD	=	160.61
TOTAL AREA				**2,472.23 s.f.**

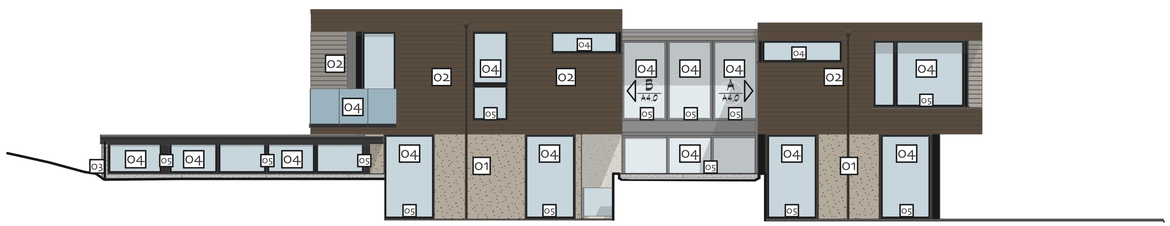
EAST ELEVATION "C"

Material	area			Area (s.f.)
Stucco	01	Area Calculation from CAD	=	77.57
Wood	02	Area Calculation from CAD	=	63.85
Concrete	03	Area Calculation from CAD	=	0.00
Glass	04	Area Calculation from CAD	=	0.00
Aluminum	05	Area Calculation from CAD	=	0.00
TOTAL AREA				**141.42 s.f.**

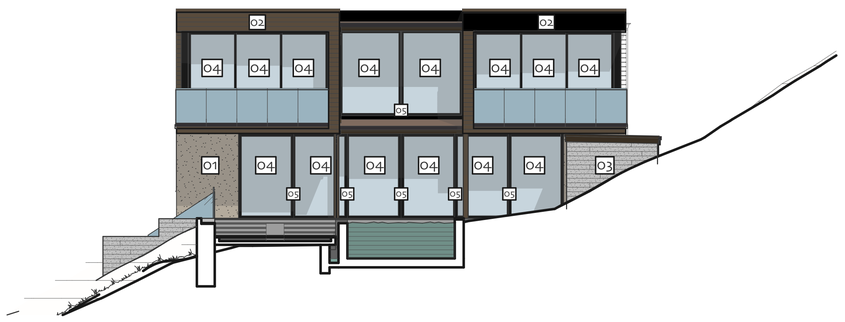
EAST ELEVATION (L.R.V.)
SCALE: 1/8" = 1'-0"



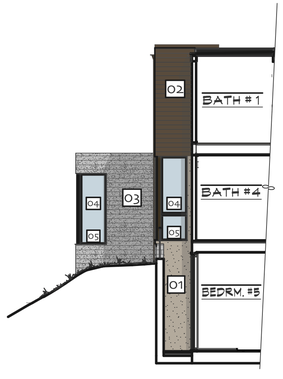
SOUTH ELEVATION (L.R.V.)
SCALE: 1/8" = 1'-0"



WEST ELEVATION (L.R.V.)
SCALE: 1/8" = 1'-0"



LIGHT WELL WEST ELEV. "D" (L.R.V.)
SCALE: 1/8" = 1'-0"

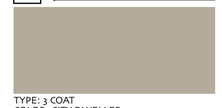


NORTH ELEVATION (L.R.V.)
SCALE: 1/8" = 1'-0"



MATERIALS COLOR BOARD

01 STUCCO SIDING



TYPE: 3 COAT
COLOR: CITY DWELLER
LRV: 51
SOURCE: KELLY MOORE (KM4941-2)

02 EXTERIOR WOOD SIDING



TYPE: CYPRESS
COLOR: TIGER SMOOTH HICKORY FINISH
LRV: 14
SOURCE: DELTA MILLWORKS (WRC SSB-ATLAS)

03 CONCRETE



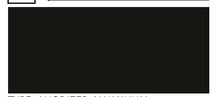
TYPE: 3 P.I.P. BOARD FORMED
COLOR: GREY
LRV: 29
SOURCE:

04 GLASS



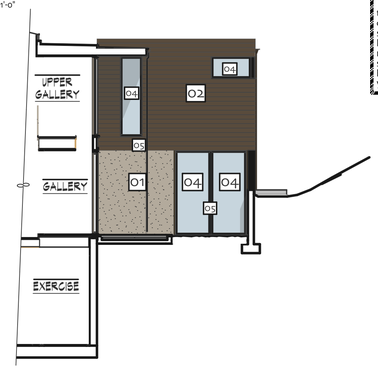
TYPE: LOW-E
COLOR: CLEAR
LRV: 7
SOURCE: SKYFRAME

05 ALUMINUM

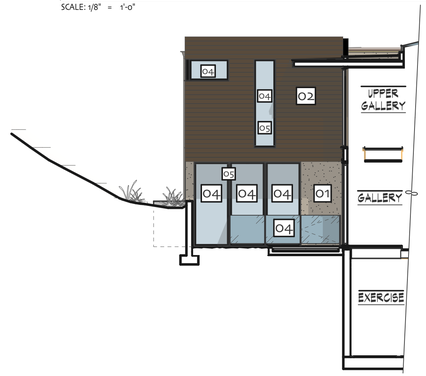


TYPE: ANODIZED ALUMINUM
COLOR: BLACK
LRV: 6
SOURCE: FLEETWOOD

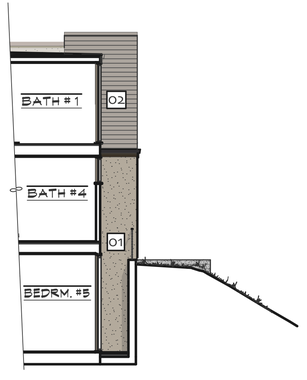
COURTYARD WEST ELEV. "A" (L.R.V.)
SCALE: 1/8" = 1'-0"



COURTYARD EAST ELEV. "B" (L.R.V.)
SCALE: 1/8" = 1'-0"



LIGHT WELL EAST ELEV. "C" (L.R.V.)
SCALE: 1/8" = 1'-0"



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	
Sheet No.	A4.2
Of date printed:	7/16/24

PROPOSED ROOF PLAN

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



ROOF PLAN NOTES

1. **New Class A Roofing System**
   per **2022 CBC Chapter 705A**, for a **Wildland-Urban Interface Fire Hazard Area**, typ., u.n.o.
   Class A - IB Roof Systems (UL-R15546 & ICC-ES Evaluation Report ESR-2852), "Tan" Single Ply Mechanically Attached Membrane Roofing System w/ heat welded seams, o/ **prefab. tapered H-Shield** polyisocyanurate foam core panels by **Hunter Panel ®**, or equiv. (¼" per foot min. slope), o/ ¾" **CD-X** plywood sheathing, or ¾" exterior grade **OSB Struct. I** sheathing, typ., u.n.o. see struct. roof framing plan & notes, and arch'l./struct. details for more info., typical, u.n.o.

2. **Gutters & Downspouts**
   all gutters and roof drains to have screen mesh covers as required to prevent accumulation of leaves & debris in gutters and drains per **sec. R327.5.4, 2022 CRC**, & **Chapter 7A, 2022 CBC** for a **Wildland-Urban Interface Fire Hazard Area**
   see site plan/civil drawings by **Lea & Braze** for more surface drainage info., and soils report by **GeoForensics, Inc**., typical, u.n.o.
   a. roof drains
   roof drains, and roof overflow drains as manuf. by **PortalsPlus ®** (or equiv.), and installed per manuf. specs. see roof plan for location of all roof and overflow roof drain locations. typical, u.n.o.
   b. typical downspouts
   3"x3" rectangular 24 ga. min. **bonderized** metal downspouts. terminate all downspouts at 4" dia. **HDPE** tight lines, run to energy dissipater locations per Site Plan/Civil drawings, typical, u.n.o.

3. **Roof Jacks**
   all new exterior vents (combustion air, exhaust vents, found. vents, etc.)shall be covered w/ non-combustible, corrosion-resistant wire mesh w/ mesh openings of 1/16" (min.) and 1/8" (max.) per **sec. R337.6.2, 2022 CRC**, typical, u.n.o.
   group plumbing & exhaust vents to optimize space for future PV solar panels, typical, u.n.o
   a. exhaust vents
   all exhaust vents shall be located a min. of 3' from or 1' above all roof or wall openings per **2022 CMC sec. 504.5. sec. 510.8.2 & sec. 510.8.3.** provide neoprene gaskets & g.i. roof jack/ rain cap. paint to match roof color & locate where not visible from street wherever possible. typical, u.n.o.
   b. plumbing vents
   all plumbing vents to be located a min. of 10' from or 3' above roof or wall openings per **2022 CPC, sec. 510.5.2, sec. 906.1,** & **sec. 906.2,** typical, u.n.o.

4. **Flashing**
   flashing per **sec. R905.12, 2022 CRC** for single ply membrane roofing systems
   see roof plan and arch'l. details for more info., typical, u.n.o.
   a. step & pitchbreak flashing
   single ply roof membrane cover strip (hot air welded per manuf. specs.) per **sec. R905.12, 2022 CRC**, typical, u.n.o.
   b. flashing installation
   install flashing in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing. components per **2022 CRC sec. R703.8,**. typical, u.n.o.
   c. window/door head flashing
   26 ga. g.i. "Z" flashing above windows & doors where occurs per details, typical, u.n.o.

5. **Fascia Board & Eaves**
   see arch'l. eave details & struct. framing plans and details for more info., typical, u.n.o.
   kiln-dried 2x clear smooth **cedar** (or **mahogany**) fascia board, w/ 1x6 clear **stain grade cedar** t&g decking w/ square slot groove, o/ **Dens-Glas® Gold Fireguard** 5/8" **type 'x'** one hr.-rated gyp. board o/
   1 3/4" x 7 1/4" LVL or 2x8 **d.f. no. 2** rafters @ spacing per struct. framing plans, typical, u.n.o.

6. **Attic Exhaust Vents**
   see cross sections for more info.
   none required or provided at new roofs @ living areas per **sec. 806.4, 2022 CRC.** use open cell spray polyurethane foam insulation at attic/flat roof systems per insulation specs.

7. **Skylights**
   see window schedule and skylight framing details for more info. typ., u.n.o.
   a. fixed skylights
   Velux curb mounted bronze anodized aluminum clad wood frame skylight w/ dual **tempered** argon filled "**Comfort Plus**" **tinted** glazing. install per the manuf. specs. typical, u.n.o.
   b. well and opening
   gypsum wallboard o/ double 2x framing all around roof & ceiling openings, typical, u.n.o.

8. **Photo-Voltaic Solar Panel Generator System (deferred submittal)**
   Contractor to provide shop drawings/submittal package of final array configuration, panel & inverter cut sheets, & single line diagrams as req'd as a deferred submittal for approval by bldg official, once manufacturers & model numbers are known.
   See PV Solar Panel layout by Cobalt Power Systems for more info., typical.
   a. typical roof mounted solar panels
   see roof plan & site plan for preliminary layout of PV solar panels fastened to black aluminum stand-off tilt racks. roofer to coordinate w/electrician & solar installer to run wiring to combiner boxes & provide conduit thru water tight roof jacks as required. provide disconnect switches as required, typical.
   b. inverter/control panels
   verify exact mech. room location in field with owner, and run conduit (size as required) in walls from roof to basement mechanical room.

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G ! this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

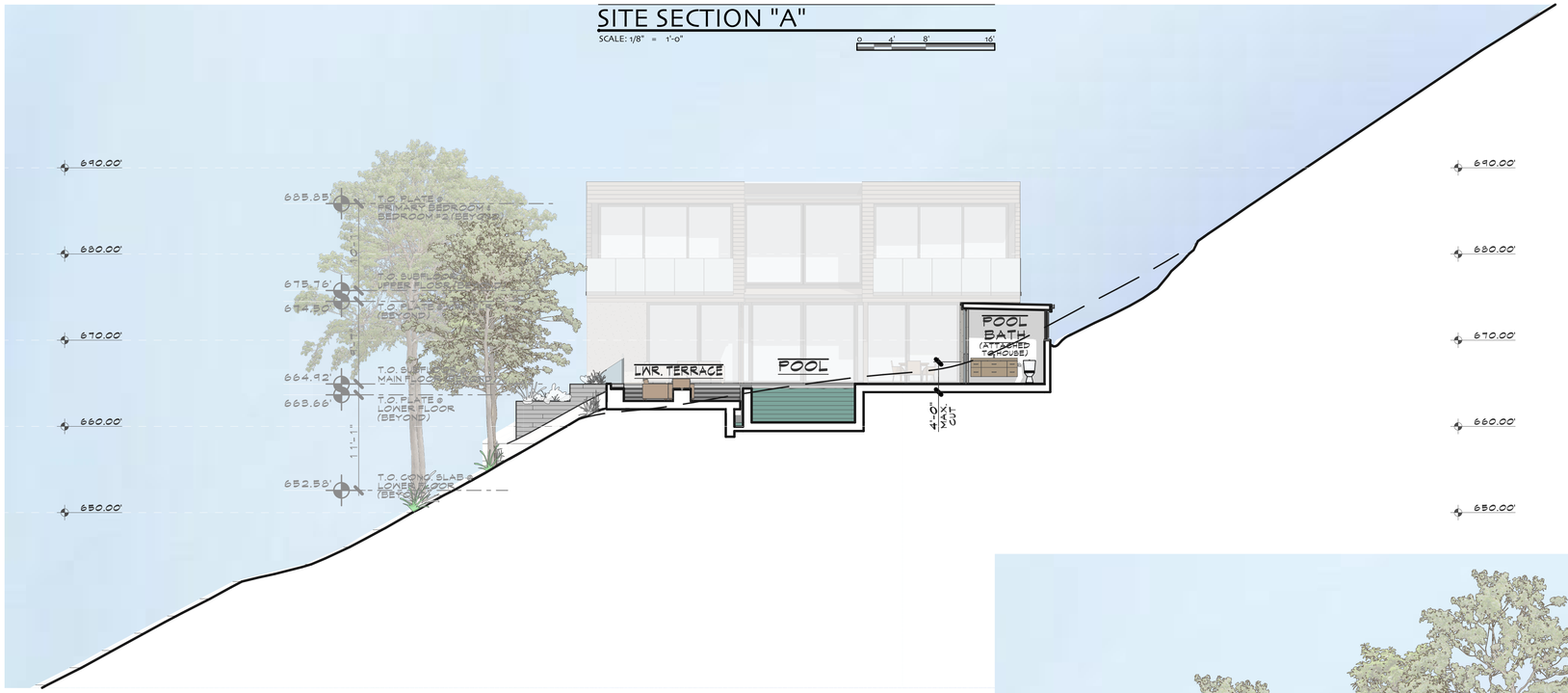
Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A5.0

Of date printed: 7/16/24

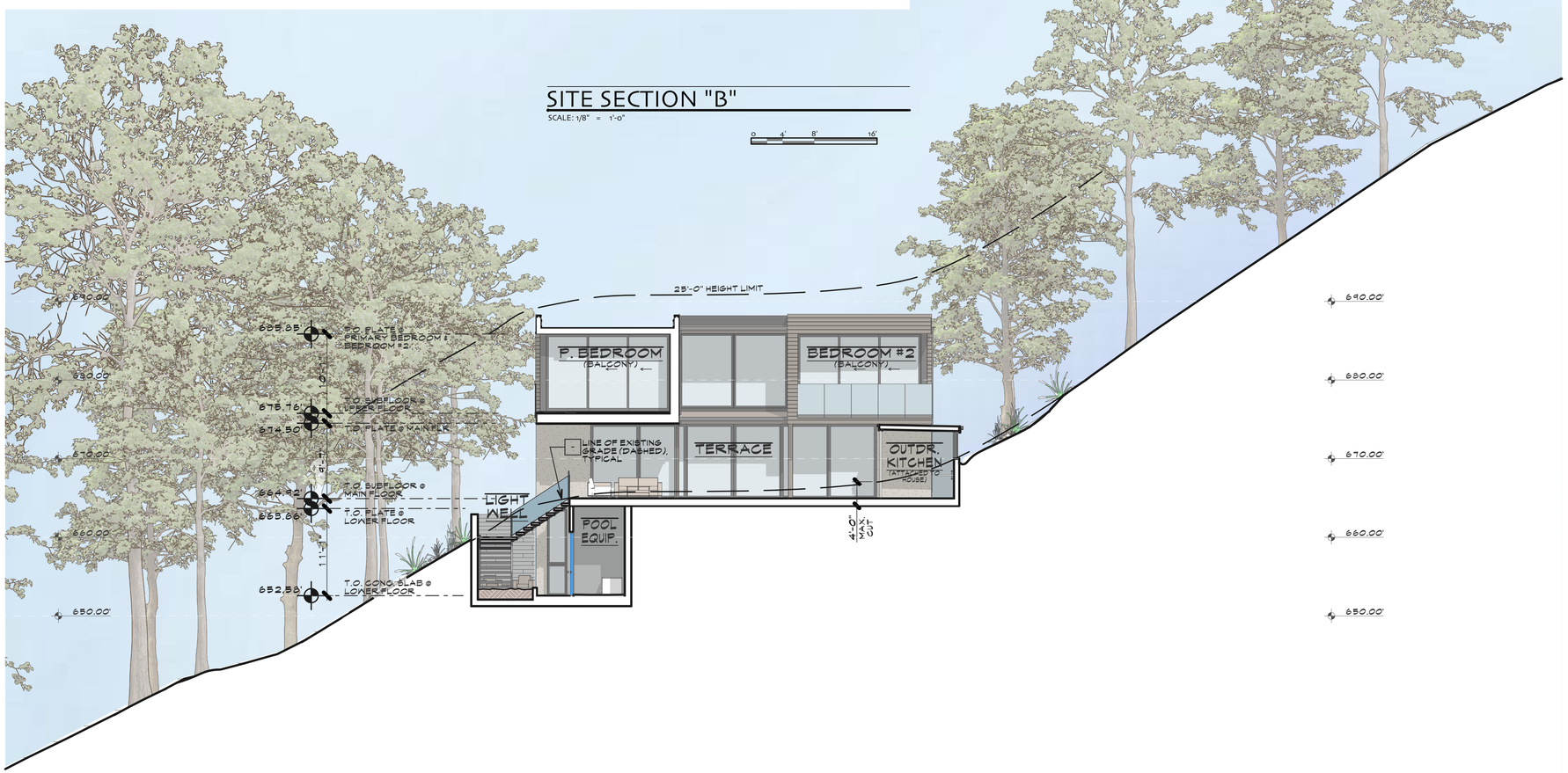
SITE SECTION "A"

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



SITE SECTION "B"

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



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

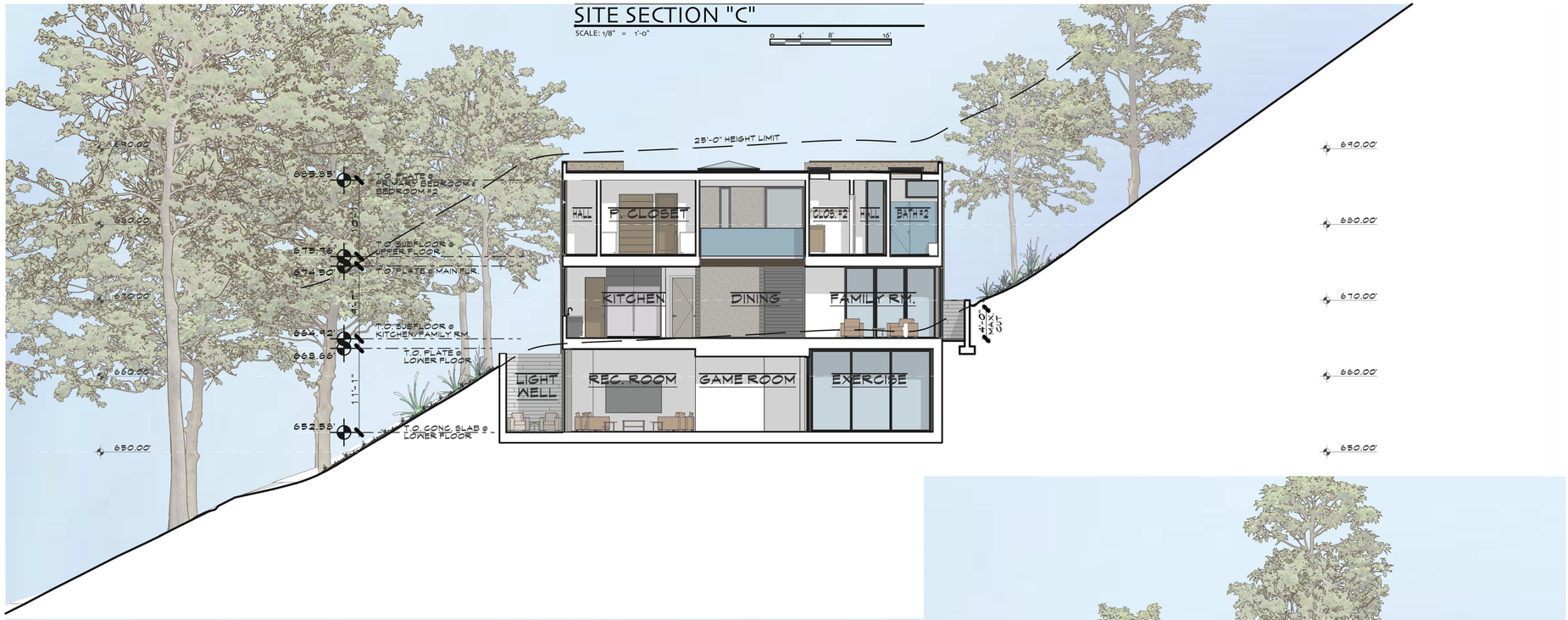
Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A6.0

Of date printed: 7/16/24

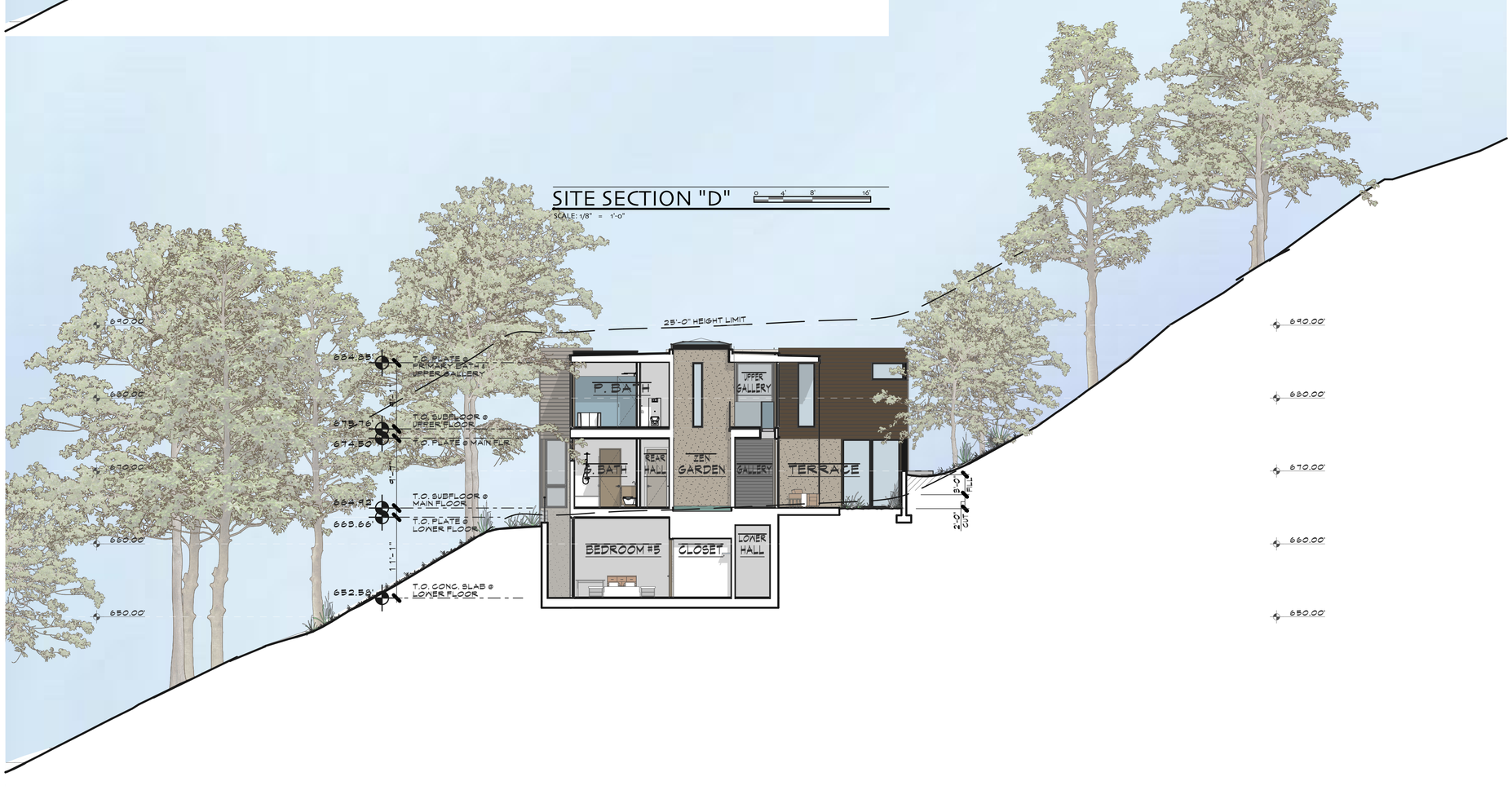
SITE SECTION "C"

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



SITE SECTION "D"

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



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from:
NOEL F. CROSS, ARCHITECT, A.I.A.

G!

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

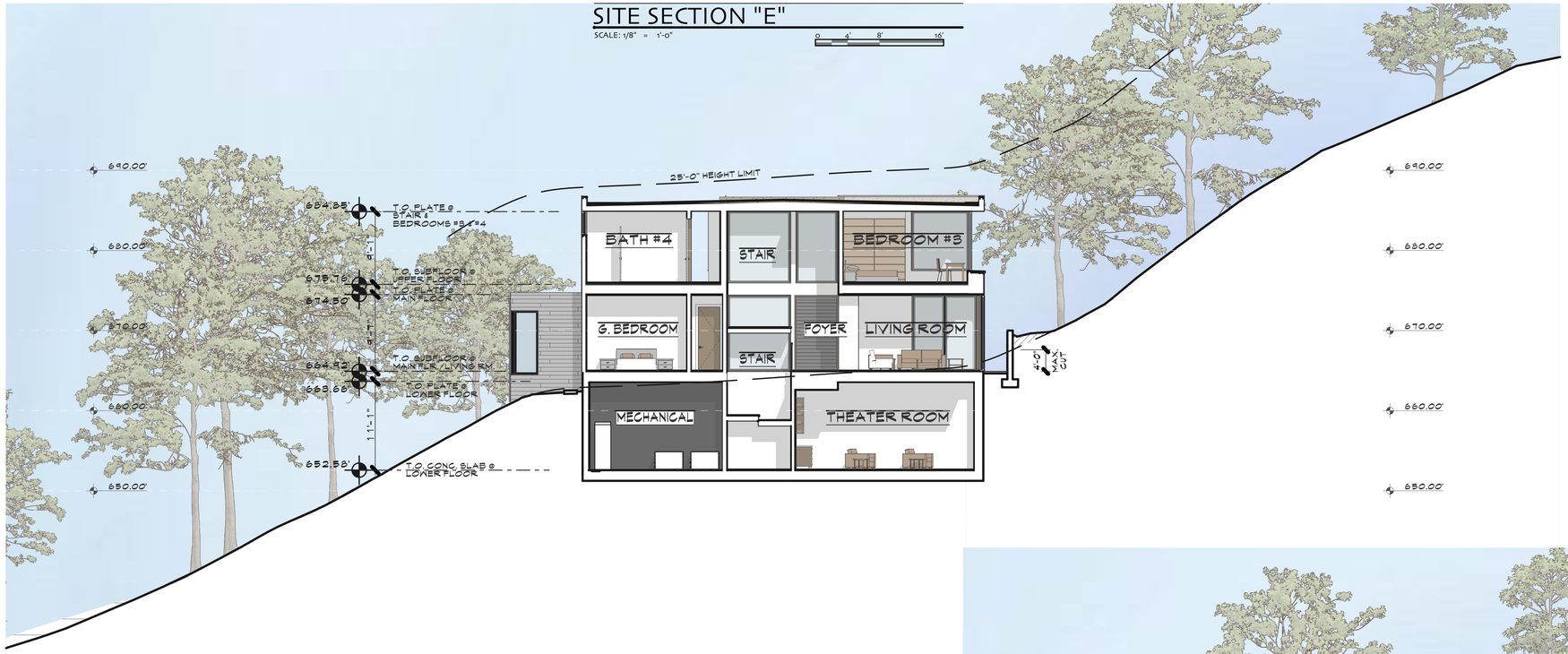
Sheet No. A6.1

Of

date printed: 7/16/24

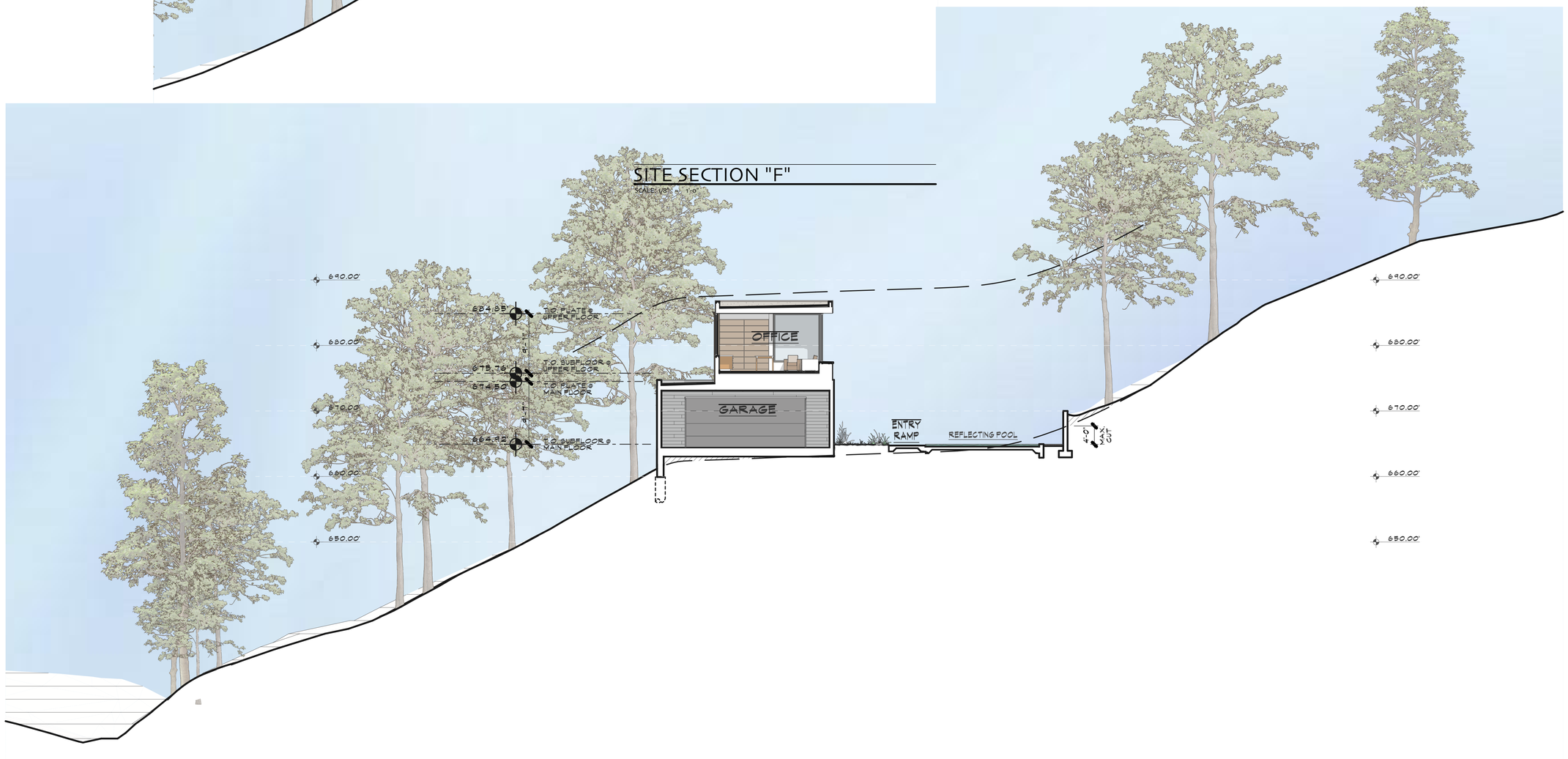
SITE SECTION "E"

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



SITE SECTION "F"

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



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G!

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

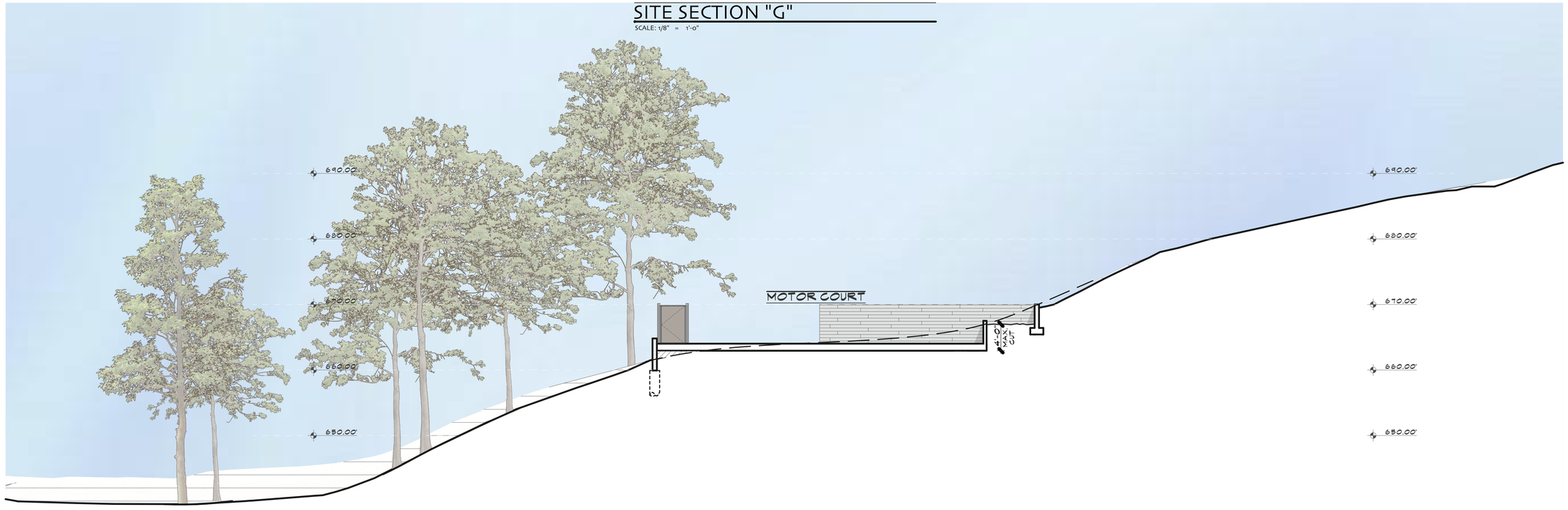
Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A6.2

Of date printed: 7/16/24

SITE SECTION "G"

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



SITE SECTION "H"

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



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

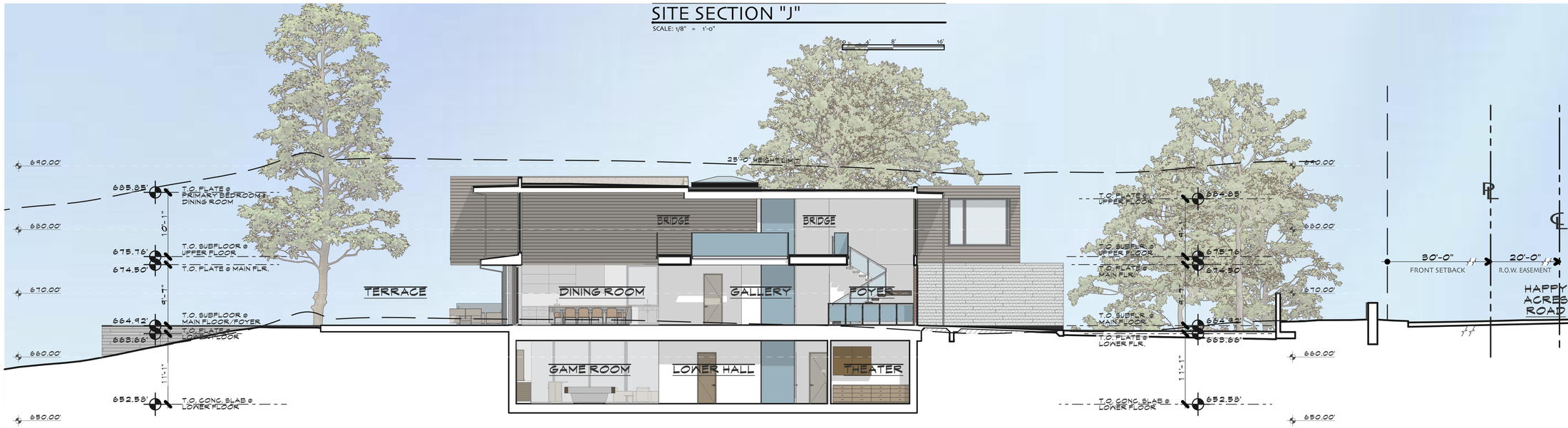
Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A6.3

Of date printed: 7/16/24

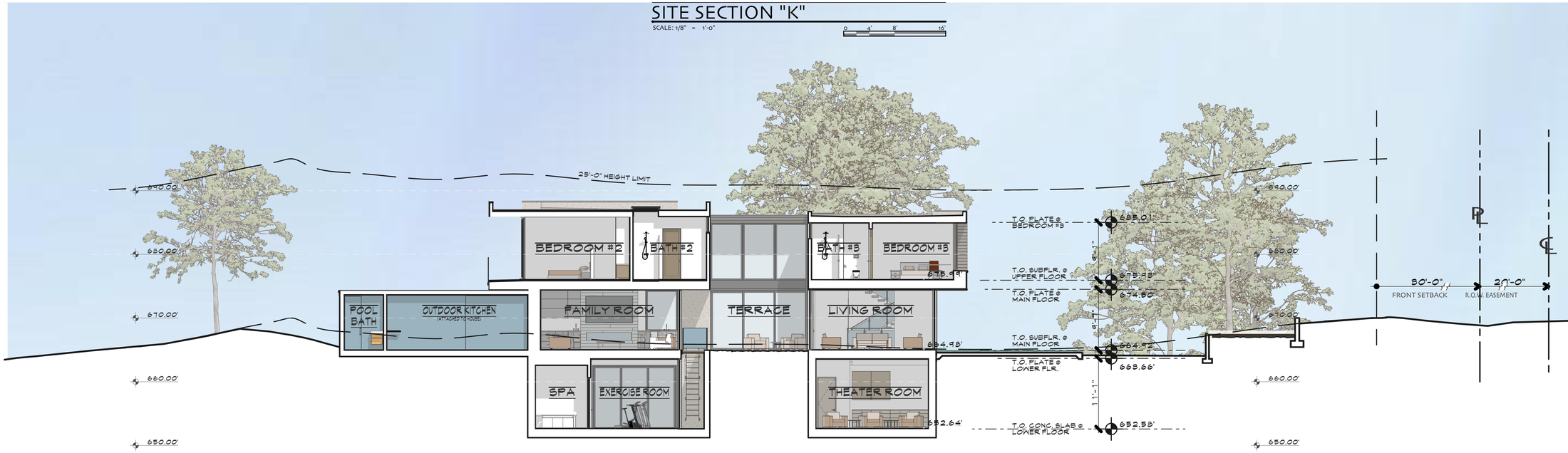
SITE SECTION "J"

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



SITE SECTION "K"

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



ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G!

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

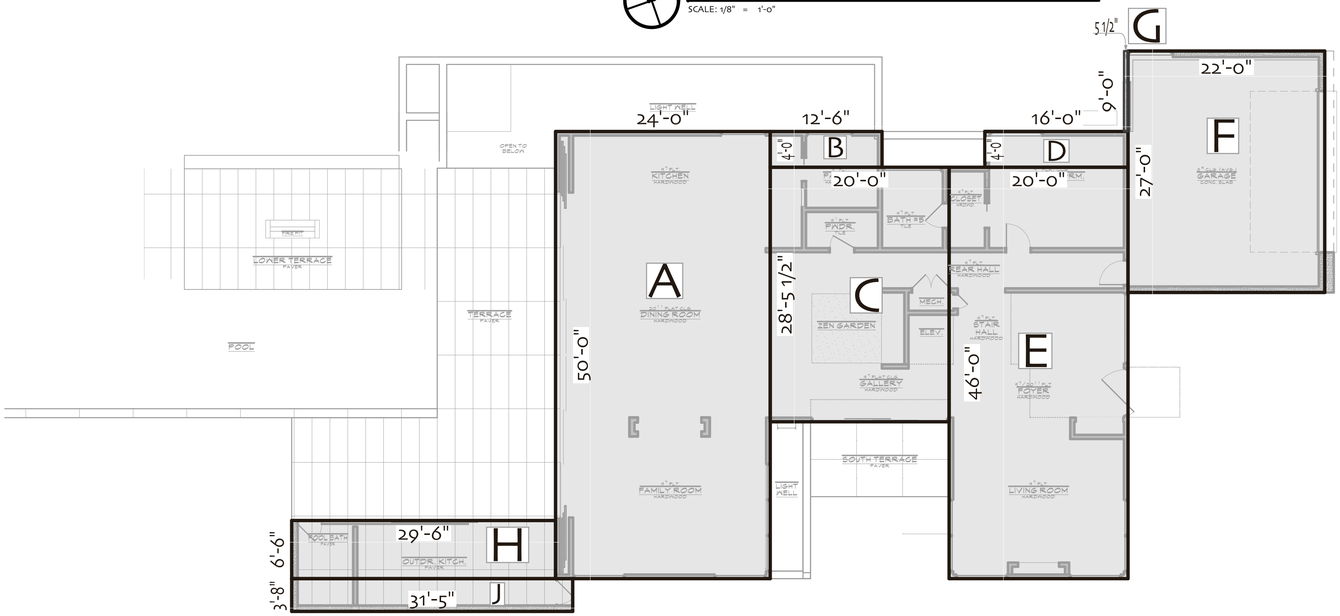
Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No. A6.4

Of date printed: 7/16/24

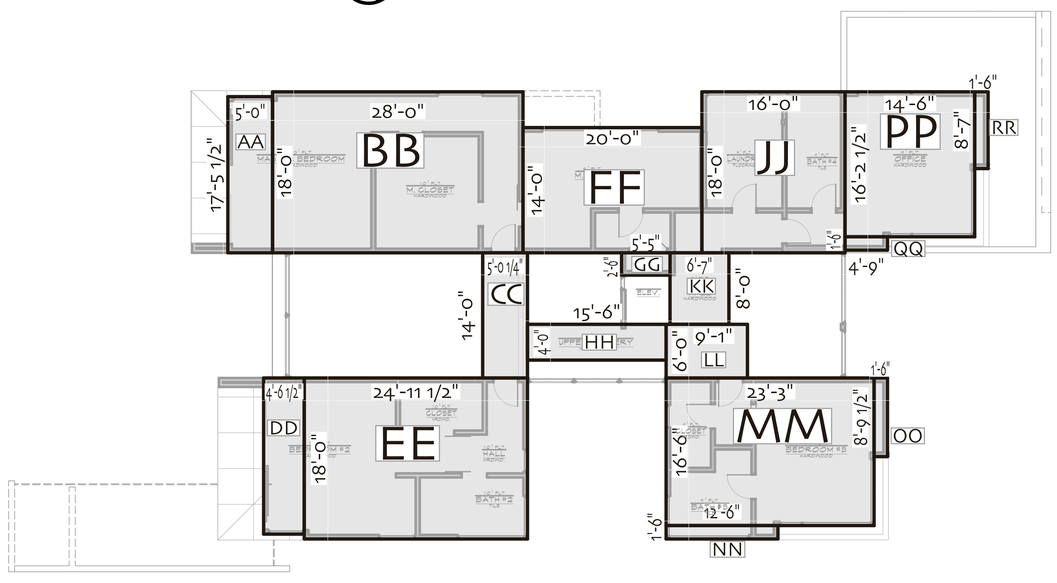
MAIN FLOOR F.A.R. DIAGRAM

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



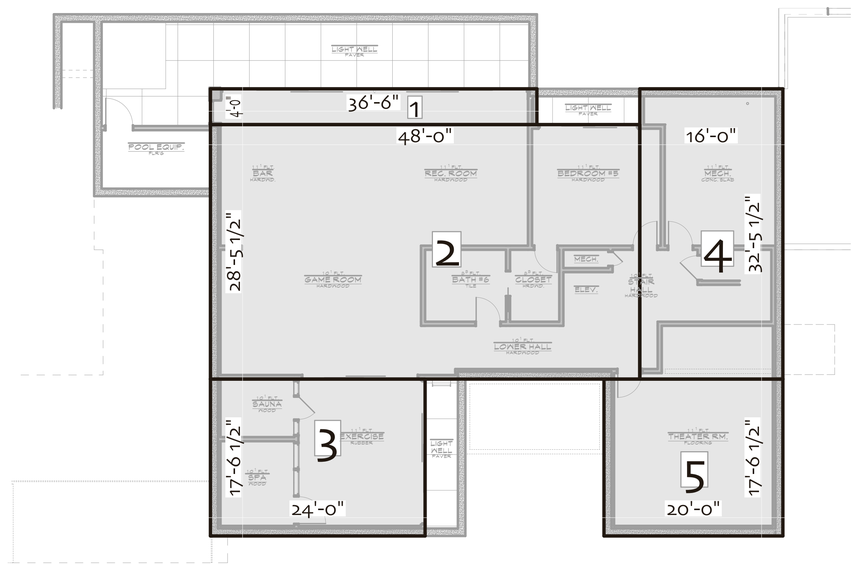
UPPER FLR. F.A.R. DIAGRAM

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



BASEMENT F.A.R. DIAGRAM

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



TOOFAN RESIDENCE

FLOOR AREA SUMMARY

7/3/24

	BASEMENT LEVEL	area	length (ft.)		width (ft.)		Gross Floor area (s.f.)	Cellar/Non FAR area (s.f.)
	Rec Room	1	4.00	x	36.50	=	146.00	146.00
	Rec Room	2	28.46	x	48.00	=	1,366.00	1,366.00
	Exercise/Spa	3	17.54	x	24.00	=	421.00	421.00
	Lower Stair/Mechanical	4	32.46	x	16.00	=	519.33	519.33
	Theater	5	17.54	x	20.00	=	350.83	350.83
1	**lower level subtotals**					=	**2,803.17 s.f**	**2,803.17 s.f**
	MAIN LEVEL	**area**	**length (ft.)**		**width (ft.)**		**area (s.f.)**	**area (s.f.)**
	Kitchen/Dining/Family	A	50.00	x	24.00	=	1,200.00	0.00
	Pantry	B	4.00	x	12.50	=	50.00	0.00
	G. Bath/Gallery	C	28.46	x	20.00	=	569.17	0.00
	Guest Bedroom	D	4.00	x	16.00	=	64.00	0.00
	G. Bedroom/Stair/Living	E	46.00	x	20.00	=	920.00	0.00
2	**main level subtotals**					=	**2,803.17 s.f**	
	Garage	F	27.00	x	22.00	=	594.00	400.00
	Garage	G	9.00	x	0.46	=	4.13	0.00
3	**garage subtotal**					=	**598.13 s.f**	**400.00 s.f**
	Cabana Pool Bath	H	6.50	x	29.50	=	191.75	0.00
	Cabana Outdoor Kitchen	J	3.67	x	31.42	=	115.31	0.00
4	**cabana subtotal**					=	**307.06 s.f**	
	UPPER LEVEL	**area**	**length (ft.)**		**width (ft.)**		**area (s.f.)**	**area (s.f.)**
	M. Bedroom	AA	17.46	x	5.00	=	87.29	0.00
	M. Bedroom/Closet	BB	18.00	x	28.00	=	504.00	0.00
	Bridge	CC	14.00	x	5.02	=	70.29	0.00
	Bedroom #2	DD	4.54	x	17.46	=	79.29	0.00
	Bedroom/Bath #2	EE	18.00	x	24.96	=	449.25	0.00
	M. Bath	FF	14.00	x	20.00	=	280.00	0.00
	Mechanical	GG	2.50	x	5.42	=	13.54	0.00
	Upper Gallery	HH	4.00	x	15.50	=	62.00	0.00
	Laundry/Bath #4	JJ	18.00	x	16.00	=	288.00	0.00
	Stair Hall	KK	8.00	x	6.58	=	52.67	0.00
	Stair Hall	LL	6.00	x	9.08	=	54.48	0.00
	Bedroom/Bath #3	MM	16.50	x	23.25	=	383.63	0.00
	Bath #3	NN	1.50	x	12.50	=	18.75	0.00
	Bedroom #3	OO	8.79	x	1.50	=	13.19	0.00
	Office	PP	16.21	x	14.50	=	235.02	0.00
	Office	QQ	1.50	x	4.75	=	7.13	0.00
	Office	RR	8.58	x	1.50	=	12.88	0.00
5	**upper level subtotals**					=	**2,611.39 s.f**	**0.00 s.f**
1	**MAIN HOUSE BSMT FLOOR AREA**					=	**2,803.17 s.f**	**2,803.17 s.f**
2-4	**MAIN HOUSE MAIN FLOOR AREA (incl. garage)**					=	**3,708.35 s.f**	**400.00 s.f**
5	**MAIN HOUSE UPPER FLOOR AREA**					=	**2,611.39 s.f**	**0.00 s.f**
	TOTAL PROPOSED FLOOR AREA					=	**9,122.91 s.f**	**3,203.17 s.f**
	TOTAL PROPOSED COUNTABLE FLOOR AREA					=	**5,919.75 s.f**	

< 6,000 s.f. can avoid Planning Commission if no grading exceptions required

ARCHITECT

Noel Cross+Architects

1475 S. Bascom Ave. Ste. 218 Campbell, CA 95008
408-216-0222 www.nfcarchitect.com

LICENSED ARCHITECT
NOEL F. CROSS
No. C 018234
REN. 1/1/24
STATE OF CALIFORNIA

The plans, ideas arrangements, and designs indicated or represented by this drawing are owned by, and are the property of the Architect and were created and developed solely for use on, and in connection with this specific project, and shall not be used, in whole or in part, for any purpose for which they were not originally intended without written permission from: NOEL F. CROSS, ARCHITECT, A.I.A.

G !

this symbol call attention to a "green" material or construction process. the general contractor and all subconstractors shall give special attention to locating, procuring and installing this specific material, or one that is as equally environmentally sustainable. in many cases vendor phone numbers have benn included. call the architect in the event you cannot locate the specified material.

TOOFAN RESIDENCE

Property Owner	Fred Toofan Fereshteh Toofan
Project Address	200 Happy Acres Road Los Gatos, CA 95032
Phone	(408) 910-1528
Parcel	APN: 537-24-030
Site Area	2.728 acres 118,816 sq. ft (gross) 42,526 sq. ft. (net)
Zoning	HR-2½ Hillside Residential, Town of Los Gatos
Setbacks	Front: 30'-0" Rear: 25'-0" Side: 20'-0"
Construction	Type V-B Sprinklered
Occupancy	R-3/U

PROJECT DATA

Project No.	20.06
Drawn By	DSK/JMS/JIF
Checked By	NFC
Date	16 JULY 2024 TECHNICAL REVIEW SUBMITTAL
Revisions	

Sheet No.	FAR-1
Of date printed:	7/16/24

AIA California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y | N/A | RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CALGreen*, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1 or 4.106.4.2 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code,* Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
   1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Sections 4.106.4.2.1 and 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as a future EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1Multifamily development projects with less than 20 dwelling units; and hotels and motels with less than 20 sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exceptions:

1.When EV chargers (Level 2 EVSE) are installed in a number equal to or greater than the required number of EV capable spaces.

2.When EV chargers (Level 2 EVSE) are installed in a number less than the required number of EV capable spaces, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed.

Notes:

a.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

4.106.4.2.2 Multifamily development projects with 20 or more dwelling units, hotels and motels with 20 or more sleeping units or guest rooms.
The number of dwelling units, sleeping units or guest rooms shall be based on all buildings on a project site subject to this section.

1.EV Capable. Ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE. Electrical load calculations shall demonstrate that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at a minimum of 40 amperes.

The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

Exception: When EV chargers (Level 2 EVSE) are installed in a number greater than five (5) percent of parking spaces required by Section 4.106.4.2.2, Item 3, the number of EV capable spaces required may be reduced by a number equal to the number of EV chargers installed over the five (5) percent required.

Notes:

a.Construction documents shall show locations of future EV spaces.

b.There is no requirement for EV spaces to be constructed or available until receptacles for EV charging or EV chargers are installed for use.

2.EV Ready. Twenty-five (25) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. For multifamily parking facilities, no more than one receptacle is required per dwelling unit when more than one parking space is provided for use by a single dwelling unit.

Exception: Areas of parking facilities served by parking lifts.

3.EV Chargers. Five (5) percent of the total number of parking spaces shall be equipped with Level 2 EVSE. Where common use parking is provided, at least one EV charger shall be located in the common use parking area and shall be available for use by all residents or guests.

When low power Level 2 EV charging receptacles or Level 2 EVSE are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EVSE shall have a capacity of not less than 30 amperes. ALMS shall not be used to reduce the minimum required electrical capacity to the required EV capable spaces.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 3, shall comply with Section 4.106.4.2.2.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See California Building Code, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Location.
EVCS shall comply with at least one of the following options:

1.The charging space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space.

2.The charging space shall be located on an accessible route, as defined in the California Building Code, Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the California Building Code, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1 and Section 4.106.4.2.2.1.2, Item 3.

4.106.4.2.2.1.2 Electric vehicle charging stations (EVCS) dimensions.
The charging spaces shall be designed to comply with the following:

1.The minimum length of each EV space shall be 18 feet (5486 mm).

2.The minimum width of each EV space shall be 9 feet (2743 mm).

3.One in every 25 charging spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet (3658 mm).

a.Surface slope for this EV space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction.

4.106.4.2.2.1.3 Accessible EV spaces.
In addition to the requirements in Sections 4.106.4.2.2.1.1 and 4.106.4.2.2.1.2, all EVSE, when installed, shall comply with the accessibility provisions for EV chargers in the California Building Code, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with California Building Code, Chapter 11A, Section 1109A.

4.106.4.2.3 EV space requirements.
1.Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the location or the proposed location of the EV space. Construction documents shall identify the raceway termination point, receptacle or charger location, as applicable. The service panel and/ or subpanel shall have a 40-ampere minimum dedicated branch circuit, including branch circuit overcurrent protective device installed, or space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space, at the time of original construction in accordance with the California Electrical Code.

2.Multiple EV spaces required. Construction documents shall indicate the raceway termination point and the location of installed or future EV spaces, receptacles or EV chargers. Construction documents shall also provide information on amperage of installed or future receptacles or EVSE, raceway method(s), wiring schematics and electrical load calculations. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

Exception: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the location or the proposed location of the EV space at the time of original construction in accordance with the California Electrical Code.

4.106.4.2.4 Identification.
The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code.

4.106.4.2.5 Electric Vehicle Ready Space Signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multifamily buildings.
When new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be electric vehicle charging spaces (EV spaces) capable of supporting future Level 2 EVSE.

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

4.303.3 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations*, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

CG-1

DISCLAIMER:*THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

AIA California 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

RESIDENTIAL MANDATORY MEASURES, SHEET 2 (January 2023)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O^3/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES

4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL

4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and tricloroethylene), except for aerosol products, as specified in Subsection 2 below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL

4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT

4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

DISCLAIMER: *THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED AS A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING DEPARTMENT JURISDICTIONS, THIS CHECKLIST IS TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL NEEDS. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE.*

UNNAMED TRIBUTARY TO ROSS CREEK

LANDS OF SHINDEL
A.P.N. 537-24-015
333 HAPPY ACRES ROAD

LANDS OF SHINDEL
A.P.N. 537-24-015
333 HAPPY ACRES ROAD

EX. 2-12" CMP

EX. 12" CMP

EX. 12" PVC CONC

EX. 2-12" PVC

EX. 15" CMP

EX. TOP OF BANK

EDGE OF (E) PAVEMENT

FLOWLINE DITCH

TRANSFORMER

BOLLARDS

GATE BOX

PG&E

AC

PVC

CONC

(E) CONC WALL

EX. 50' WIDE I.E. & P.U.E.
BK. 5944 PG. 529

L.R.D.A. LINE

L.R.D.A. LINE

RETENTION BASIN

BEGA LIGHTING
RECESSED WALL
LUMINAIRE 22 230
TYP.

LIGHTING SCHEDULE

FIXTURE #	SPEC	TYPE	QTY	WATTAGE	SYMBOL
F1	BEGA LIGHTING RECESSED WALL LUMINAIRE 22 230	STEPLIGHT	9	2.1 W LED	◎

FIELD LANDSCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
P. 415.271.1899
www.fieldarch.com

PLANNING SUBMITTAL

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CA

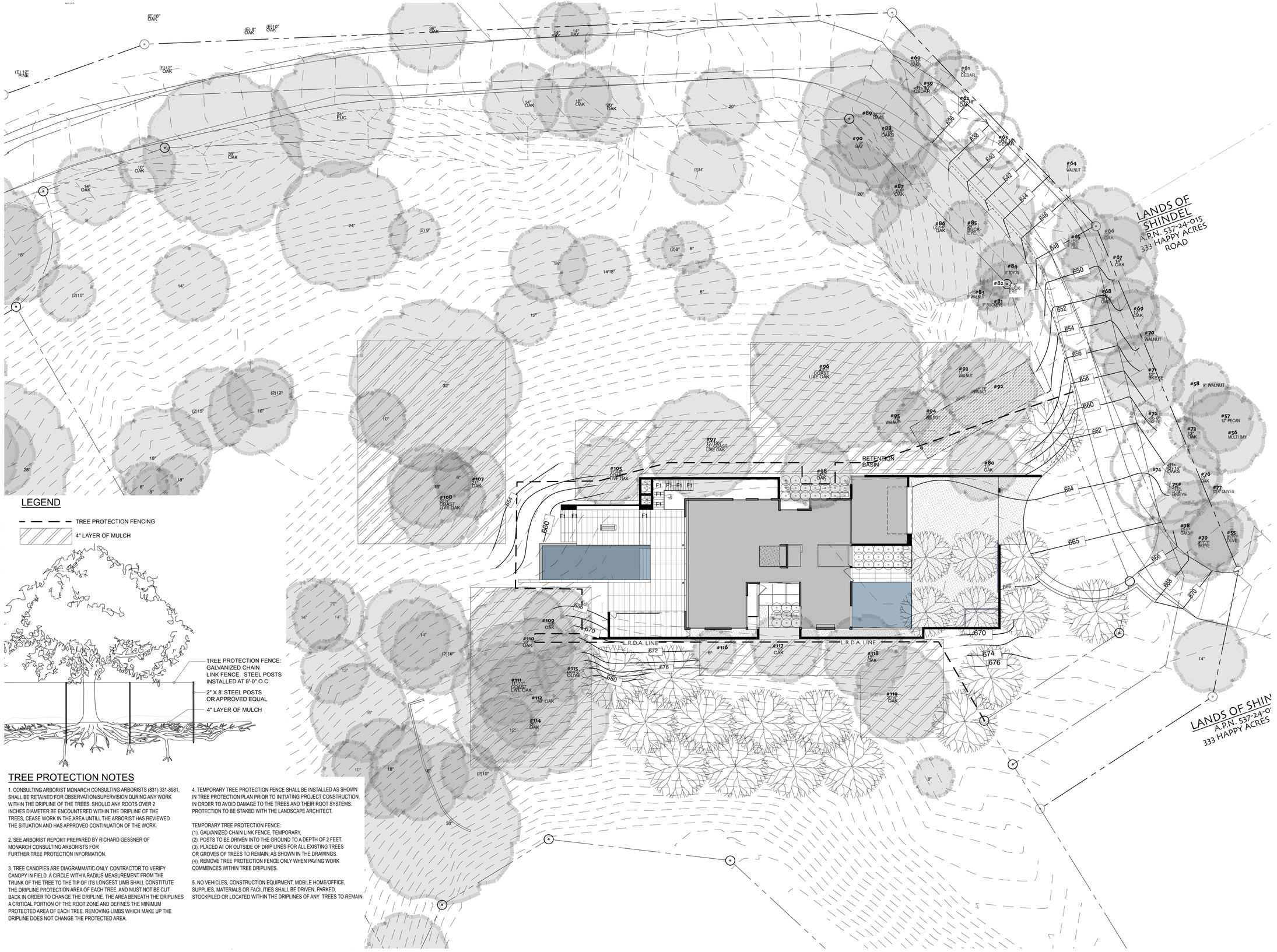
Revisions:

LIGHTING PLAN

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

DATE : 6/18/2024

SHEET : **L-1**



LEGEND

TREE PROTECTION FENCING

4" LAYER OF MULCH

TREE PROTECTION NOTES

1. CONSULTING ARBORIST MONARCH CONSULTING ARBORISTS (831) 331-8981, SHALL BE RETAINED FOR OBSERVATION/SUPERVISION DURING ANY WORK WITHIN THE DRIPLINE OF THE TREES. SHOULD ANY ROOTS OVER 2 INCHES DIAMETER BE ENCOUNTERED WITHIN THE DRIPLINE OF THE TREES, CEASE WORK IN THE AREA UNTILL THE ARBORIST HAS REVIEWED THE SITUATION AND HAS APPROVED CONTINUATION OF THE WORK.

2. SEE ARBORIST REPORT PREPARED BY RICHARD GESSNER OF MONARCH CONSULTING ARBORISTS FOR FURTHER TREE PROTECTION INFORMATION.

3. TREE CANOPIES ARE DIAGRAMMATIC ONLY. CONTRACTOR TO VERIFY CANOPY IN FIELD. A CIRCLE WITH A RADIUS MEASUREMENT FROM THE TRUNK OF THE TREE TO THE TIP OF ITS LONGEST LIMB SHALL CONSTITUTE THE DRIPLINE PROTECTION AREA OF EACH TREE, AND MUST NOT BE CUT BACK IN ORDER TO CHANGE THE DRIPLINE. THE AREA BENEATH THE DRIPLINES A CRITICAL PORTION OF THE ROOT ZONE AND DEFINES THE MINIMUM PROTECTED AREA OF EACH TREE. REMOVING LIMBS WHICH MAKE UP THE DRIPLINE DOES NOT CHANGE THE PROTECTED AREA.

4. TEMPORARY TREE PROTECTION FENCE SHALL BE INSTALLED AS SHOWN IN TREE PROTECTION PLAN PRIOR TO INTIATING PROJECT CONSTRUCTION, IN ORDER TO AVOID DAMAGE TO THE TREES AND THEIR ROOT SYSTEMS. PROTECTION TO BE STAKED WITH THE LANDSCAPE ARCHITECT.

TEMPORARY TREE PROTECTION FENCE:
(1). GALVANIZED CHAIN LINK FENCE, TEMPORARY.
(2). POSTS TO BE DRIVEN INTO THE GROUND TO A DEPTH OF 2 FEET.
(3). PLACED AT OR OUTSIDE OF DRIP LINES FOR ALL EXISTING TREES OR GROVES OF TREES TO REMAIN, AS SHOWN IN THE DRAWINGS.
(4). REMOVE TREE PROTECTION FENCE ONLY WHEN PAVING WORK COMMENCES WITHIN TREE DRIPLINES.

5. NO VEHICLES, CONSTRUCTION EQUIPMENT, MOBILE HOME/OFFICE, SUPPLIES, MATERIALS OR FACILITIES SHALL BE DRIVEN, PARKED, STOCKPILED OR LOCATED WITHIN THE DRIPLINES OF ANY TREES TO REMAIN.

FIELD LANDSCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
P. 415.271.1899
www.fieldarch.com

PLANNING SUBMITTAL

TOOFAN RESIDENCE

200 HAPPY ACRES
LOS GATOS, CA

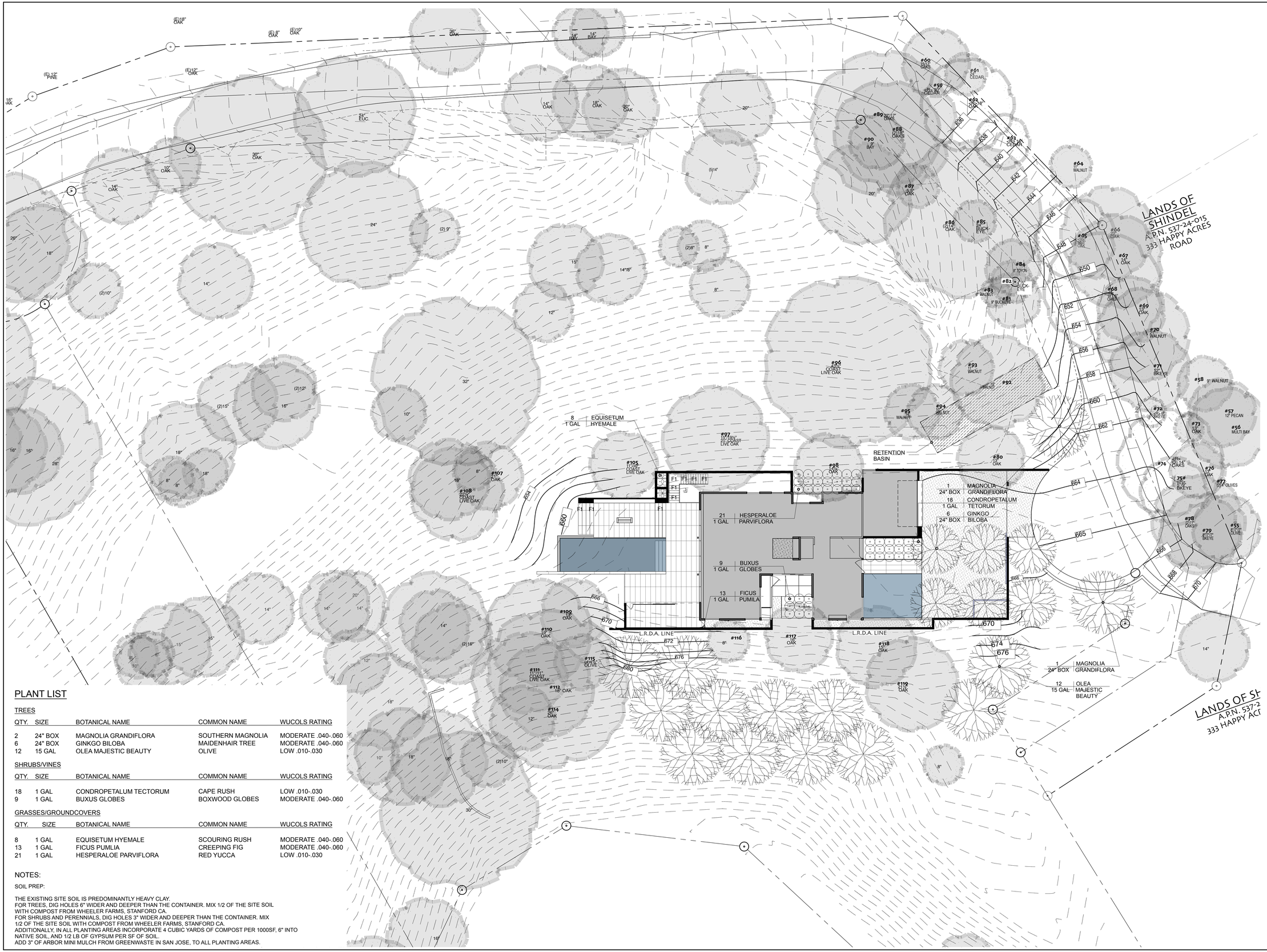
Revisions:

TREE PROTECTION PLAN

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

DATE : 6/18/2024

SHEET : **L-2**



PLANT LIST

TREES

QTY.	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS RATING
2	24" BOX	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	MODERATE .040-.060
6	24" BOX	GINKGO BILOBA	MAIDENHAIR TREE	MODERATE .040-.060
12	15 GAL	OLEA MAJESTIC BEAUTY	OLIVE	LOW .010-.030

SHRUBS/VINES

QTY.	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS RATING
18	1 GAL	CONDROPETALUM TECTORUM	CAPE RUSH	LOW .010-.030
9	1 GAL	BUXUS GLOBES	BOXWOOD GLOBES	MODERATE .040-.060

GRASSES/GROUNDCOVERS

QTY.	SIZE	BOTANICAL NAME	COMMON NAME	WUCOLS RATING
8	1 GAL	EQUISETUM HYEMALE	SCOURING RUSH	MODERATE .040-.060
13	1 GAL	FICUS PUMLIA	CREEPING FIG	MODERATE .040-.060
21	1 GAL	HESPERALOE PARVIFLORA	RED YUCCA	LOW .010-.030

NOTES:

SOIL PREP:

THE EXISTING SITE SOIL IS PREDOMINANTLY HEAVY CLAY.
FOR TREES, DIG HOLES 6" WIDER AND DEEPER THAN THE CONTAINER. MIX 1/2 OF THE SITE SOIL WITH COMPOST FROM WHEELER FARMS, STANFORD CA.
FOR SHRUBS AND PERENNIALS, DIG HOLES 3" WIDER AND DEEPER THAN THE CONTAINER. MIX 1/2 OF THE SITE SOIL WITH COMPOST FROM WHEELER FARMS, STANFORD CA.
ADDITIONALLY, IN ALL PLANTING AREAS INCORPORATE 4 CUBIC YARDS OF COMPOST PER 1000SF, 6" INTO NATIVE SOIL, AND 1/2 LB OF GYPSUM PER SF OF SOIL.
ADD 3" OF ARBOR MINI MULCH FROM GREENWASTE IN SAN JOSE, TO ALL PLANTING AREAS.

FIELD LANDSCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
P. 415.271.1899
www.fieldarch.com

PLANNING SUBMITTAL

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CA

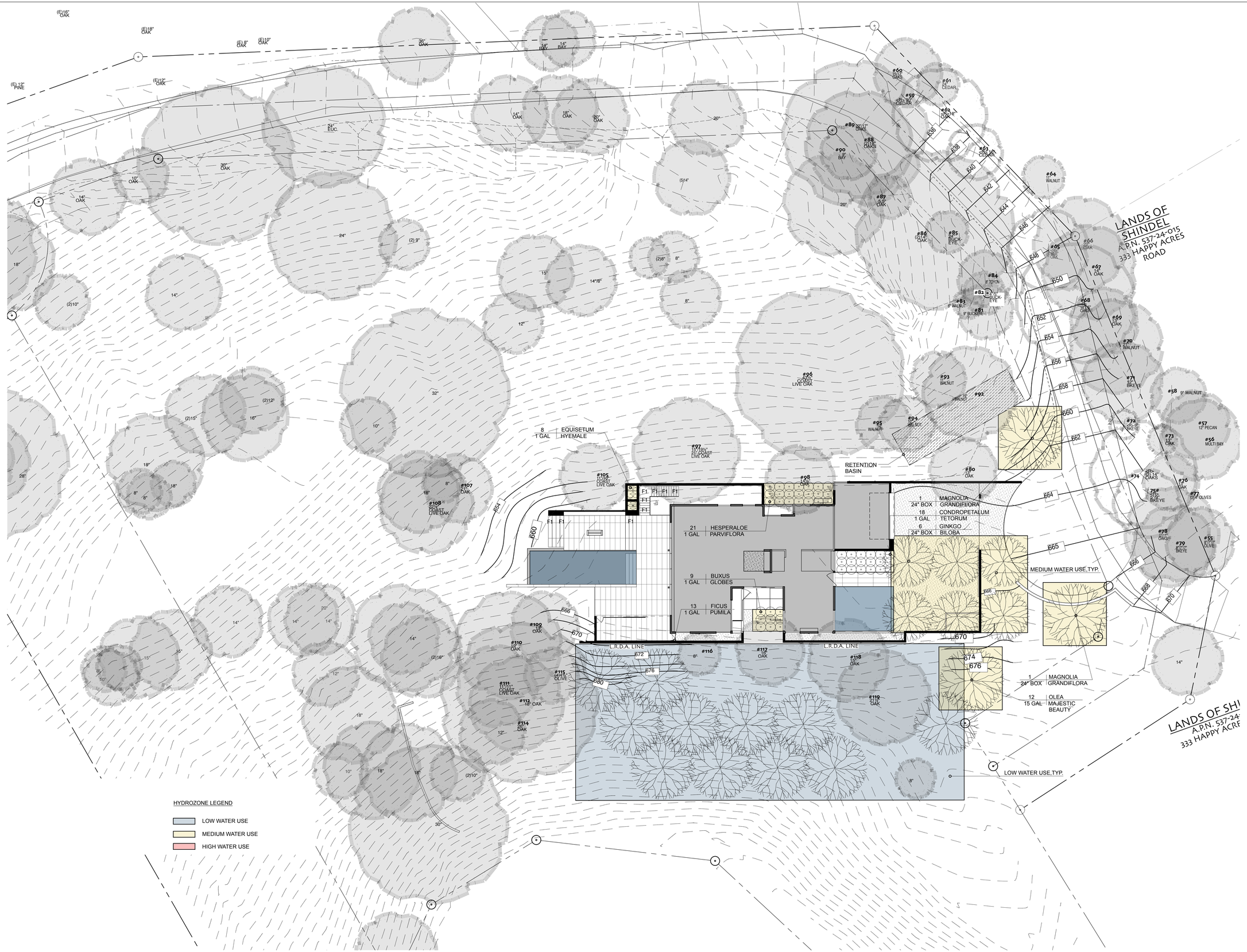
Revisions:

PLANTING PLAN

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

DATE : 6/20/2024

SHEET : **L-3**



FIELD LANDSCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
P. 415.271.1899
www.fieldarch.com

PLANNING SUBMITTAL

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CA

Revisions:

HYDROZONE PLAN

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

DATE : 6/18/2024

SHEET : **L-4**

IRRIGATION NOTES

1. THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.

2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKERS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO THEIR WORK.

3. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.

4. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.

5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. COORDINATE WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY THEIR WORK AT NO ADDITIONAL COST TO THE OWNER.

6. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL WORK AND PLAN WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.

7. ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.

8. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.

9. SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.

10. WIRE CONNECTORS SHALL BE 3M-DBR/Y-6 DIRECT BURY UNLESS OTHERWISE NOTED.

11. INSTALL TWO (2) SPARE CONTROL WIRES ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

12. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE.

13. INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, , BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.

14. PRESSURE REGULATING DEVICES ARE REQUIRED IF WATER PRESSURE EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.

15. LOCATE HOSE BIBS 12" FROM HARDSCAPE AREA.

16. CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL HEADS WHERE LOW POINT DRAINAGE COULD OCCUR. FOR DRIP OR BUBBLER CIRCUITS, INSTALL KING BROS. CV SERIES CHECK VALVES IN LATERAL LINES FOR EVERY 10' OF ELEVATION CHANGE.

17. FLUSH AND ADJUST ALL HEADS FOR OPTIMUM PERFORMANCE. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION BUBBLERS AND DRIP TUBING. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.

18. NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS/HER INSTRUCTIONS ARE OBTAINED.

19. LOCATE BUBBLERS ON UPHILL SIDE OF TREES.

20. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.

21. ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK.

22. CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.

23. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. EXCAVATION IN AREAS WHERE 2 INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS 2 INCHES AND LARGER IN DIAMETER SHALL BE WRAPPED IN A PLASTIC BAG AND SECURED WITH A RUBBER BAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN 24 HOURS; WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

24. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

25. IRRIGATION DEMAND: 12 GPM AT 65 PSI.

26. OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.

27. NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

28. NOTIFY UNDERGROUND SERVICE ALERT AT 811 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

29. A DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.

30. A CERTIFICATE OF COMPLETION SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE DESIGNER OF THE LANDSCAPE PLANS, IRRIGATION PLANS, OR THE LICENSED LANDSCAPE CONTRACTOR FOR THE PROJECT.

31. AN IRRIGATION AUDIT REPORT SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

IRRIGATION LEGEND

SHEET :

SYMBOL	MODEL NUMBER	DESCRIPTION	PSI	FLOW RATE (GPM)	MAX. RADIUS	MAX. SPACING	DETAIL #
▲	XB-10PC	RAIN BIRD XERIBUG PRESSURE COMPENSTAING EMITTER THE 1 GPH EMITTER IS FOR 1 GALLON PLANTS.	30	1 GPH	-	-	I4.0/16, 17
■	RWS-B-C-1402	RAIN BIRD DEEPROOT WATERING SYSTEM- EACH BUBBLER IS .5 GPM, TWO PER TREE	30	.5 GPM	-	-	14.0/13
●	1402	RAIN BIRD PRESSURE COMPENSATING BUBBLER BUBBLER IS .5 GPM	30	.5 GPM	-	-	14.0/13
	100-PEB	RAIN BIRD 1" REMOTE CONTROL VALVE					I3.0/6,8
	XCZ-100-PRB-COM	RAIN BIRD 1" WIDE FLOW DRIP CONTROL ZONE W/SCRUPPER VALVES AND PRESSURE REGULATING BASKET FILTER AND PVC BALL VALVE					I3.0/7,8
□	P/N #M25EF, 5/8" X 3/4"	BADGER WATER METER, MAXIMUM FLOW 15 GPM					I4.0/15
●+	401/VB	CHAMPION HOSE BIB/VACUUM BREAKER					I3.0/12
⋈	T-113-LF	NIBCO LEAD FREE GATE VALVE (LINE SIZE)					I3.0/11
	975XL2-1" / GS-1	WILKINS REDUCED PRESSURE BACKFLOW PREVENTER IN GUARDSHACK ENCLOSURE					I3.0/1,2
	2160 - 1"	GRISWOLD MASTER REMOTE CONTROL VALVE					I3.0/4
⊠	FSI-T10-00	CSI 1" FLOW SENSOR					I3.0/5
R	RSD	RAIN BIRD WIRELESS RAIN SENSOR					I4.0/14
C	RB ESP-MES	RAIN BIRD 22 STATION MAXIMUM. WALL MOUNTED IN GARAGE CONTROLLER ESP4MEI INDOOR MOUNT WITH ESP-SM6 6 STATION EXTENTION MODULE PLUS LNK2 FOR REMOTE CONTROL AND NOTFICATION VIA IOS OR AND ANDROID. AND RSDBEX RAIN SENSOR					I3.0/3
C-1 / 1" / 15 / 1.6 / 25/1		CONTROLLER AND STATION NUMBER APPLICATION RATE (INCHES) OPERATING PRESSURE (PSI) or AIR RELIEF VALVE QUANTITY APPROXIMATE GALLONS PER MINUTE REMOTE CONTROL VALVE SIZE					
		MAIN LINE: 1 1/2" 1120-SCHEDULE 40 PVC SOLVENT WELD PLASTIC PIPE WITH SCHEDULE 80 AND SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.					I3.0/9,10
		LATERAL LINE: 1120-CLASS 200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.					I3.0/9,10
		RAIN BIRD SUB-SURFACE DRIPLINE SHRUB PLANTING: XFS-06-12-500 SUBSURFACE WITH COPPER SHIELD TECHNOLOGY TO INHIBIT WEED INTRUSION. 12" EMITTER SPACING, .6 GPH PER EMITTER, 12' ROW SPACING. USE RAIN BIRD XF DRIPLINE FITTINGS. DEPTH 2".					I4.0/18,19
		RAIN BIRD XT-700-500 700" TUBING FOR DRIP EMITTERS WITH THE RAIN BIRD TWIST LOCK FITTINGS - 600 SERIES FOR XT-700 TUBING.					I4.0/16,17
		SLEEVE (SL): 1120-200 PSI PVC PLASTIC PIPE. 24" COVER.					I3.0/9,10

DRIPLINE NOTES:

1. PLANS ARE DIAGRAMMATIC. INSTALL DRIPLINE AND COMPONENTS PER MANUFACTURERS INSTRUCTIONS AND INSTALLATION DETAILS.

2. INSTALL DRIPLINE A MAXIMUM OF 12" WITH EMITTERS TRIANGULARLY SPACED. INSTALL 2" FROM PERIMETER OF PLANTED AREA. THERE SHOULD BE A MINIMUM OF TWO DRIPLINE LATERALS IN EACH PLANTED AREA. DRIPLINE SHALL BE INSTALLED AT A CONSISTANT DEPTH THROUGHOUT THE CIRCUIT.

3. PLACE AIR/VACUUM RELIEF VALVES AT THE HIGHEST POINTS OF EACH ZONE AND JUST BELOW CHECK VALVES ON SLOPES. INSTALL ONE AIR/VACUUM RELIEF VALVE FOR EVERY 750' OF TOTAL DRIPLINE PER ZONE.

4. PLACE FLUSH VALVES AT THE HYDRAULIC CENTER OF THE EXHAUST HEADER OR AT LOW POINT ON SLOPES. INSTALL MINIMUM OF ONE FOR EVERY 15 GPM.

5. INSTALL IN-LINE CHECK VALVES ON SLOPES GREATER THAN 3% AND WHERE LOW-LINE DRAINAGE COULD CAUSE WET AREAS IN THE LOWEST AREAS OF AN IRRIGATION ZONE. CHECK VALVES SHALL BE PLACED EVERY 4-5 FEET BETWEEN DRIPLINE LATERALS AND BEFORE THE FLUSH VALVE.

6. ON ALL SLOPES AND MOUNDS, PLACE THE DRIPLINE LATERALS PARALLEL TO THE SLOPE CONTOUR WHERE POSSIBLE. INCREASE THE LATERAL SPACING BY 25% ON THE LOWER ONE-THIRD OF THE SLOPE TO AVOID EXCESS DRAINAGE.

7. PVC SUPPLY AND FLUSH LINE SIZING GUIDE (ALL SUPPLY AND FLUSH LINES SHALL BE THE SAME SIZE FOR THE ENTIRE ZONE):
- 0-8 GPM – 3/4"
- 8.1-15 GPM – 1"
- 15.1-25 GPM – 1 1/4"

8. FITTINGS SHALL BE OF THE SAME MANUFACTURER AS DRIPLINE.

9. STAPLE DRIPLINE TO GROUND EVERY 3 FEET. USE ADDITIONAL STAPLES OVER EACH TEE, ELBOW OR CROSS. USE U-SHAPED STAPLES TO AVOID PINCHING THE DRIPLINE.

10. THOROUGHLY FLUSH EACH INSTALLATION SEGMENT TO ENSURE NO DEBRIS CONTAMINATION OCCURS.

11. RUN THE DRIPLINE SYSTEM EVERY DAY OR EVERY OTHER DAY TO ESTABLISH PLANT MATERIAL. MAINTAIN A CONSISTENT MOISTURE BALANCE IN THE SOIL. IT IS IMPORTANT TO KEEP THE SOIL MOIST WITHOUT SATURATION.

DRIP IRRIGATION NOTES:

1. THE CONTRACTOR SHALL PROVIDE A DRIP EMITTER SYSTEM FOR SHRUBS AS INDICATED ON THE IRRIGATION PLAN AND DETAILS.

2. EACH 1 GALLON SHRUB SHALL RECEIVE ONE 1 GPH EMITTERS ON THE UPHILL SIDE OF SHRUB, VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.

3. INSTALL THE EMITTERS ON TOP OF THE ROOT BALL AND AS FAR FROM THE TRUNK OF THE PLANT AS POSSIBLE.

4. DISTRIBUTION TUBING SHALL BE A MAXIMUM OF 5' IN LENGTH FROM ½" TUBING TO EMITTER. EACH LENGTH OF 1/2" DRIP TUBING SHALL BE A MAXIMUM OF 25'.

5. INSTALL FLUSH VALVES AT THE END OF THE RIGID PVC AS SHOWN ON PLANS.

6. ALL PVC LATERAL PIPE TO DRIP TUBING SHALL BE 3/4" UNLESS OTHERWISE NOTED.

7. THE DRIP EMITTER SYSTEM LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION AND AFTER PLANTING HAS BEEN COMPLETED.

FIELD LAND SCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
Tel 415.271.1899
www.fieldarch.com

Stamp

LICENSED LANDSCAPE ARCHITECT
Christopher Yetter 4953
Signature
Renewal Date
Date
STATE OF CALIFORNIA

ANN B. CARROLL
IRRIGATION DESIGN CONSULTANTS
P.O. BOX 1967
GARDNERVILLE, NV 89410
TEL 775.266.3589 CELL 510.816.1796
E-MAIL ANN.CARROLL1313@GMAIL.COM

FRED TOOFAN RESIDENCE
200 HAPPY ACRES ROAD
LOS GATOS, CA 95030

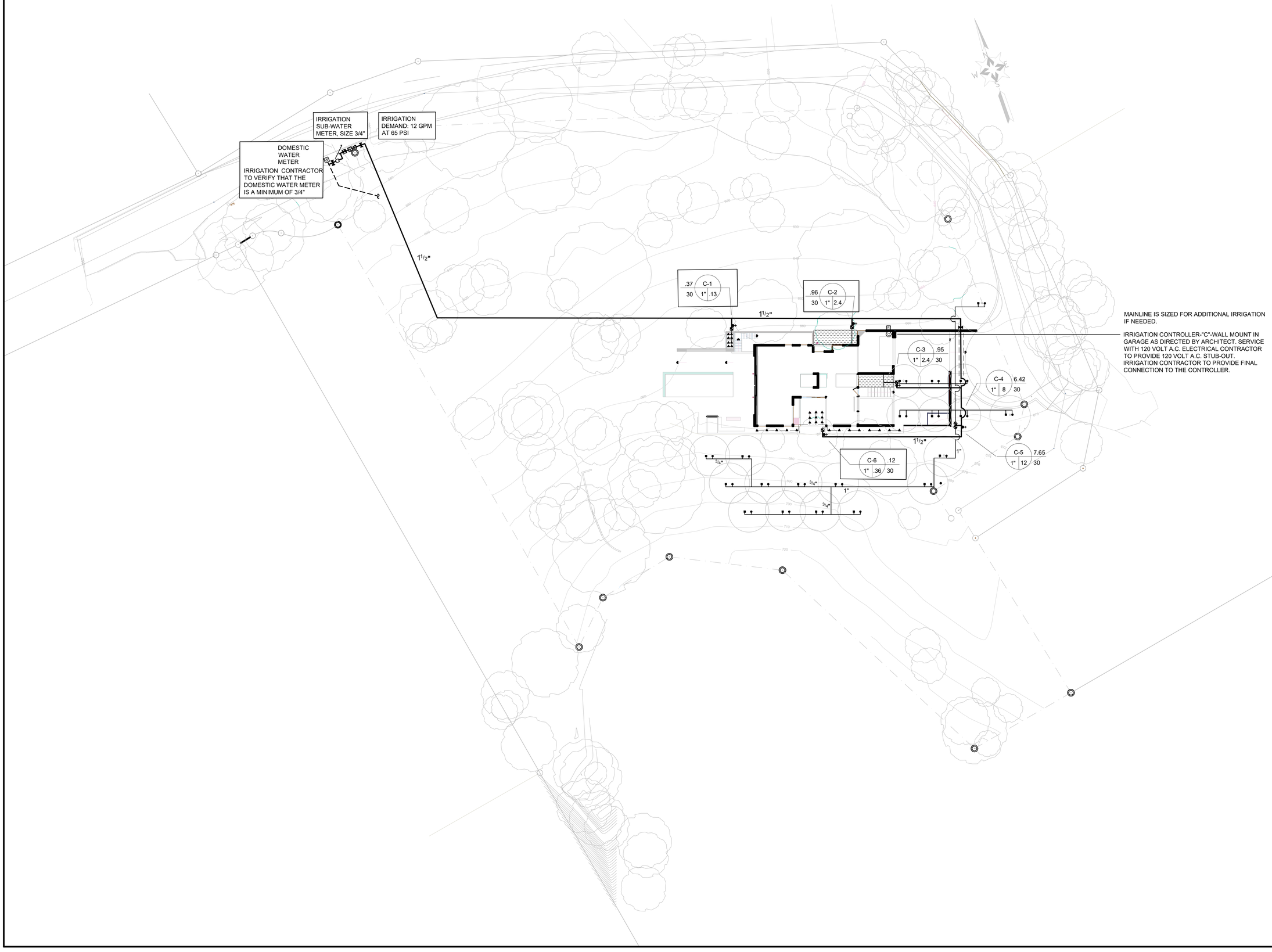
Revisions:

IRRIGATION LEGEND AND NOTES

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

DATE : FEBRUARY 1, 2024

SHEET : I1.0



FIELD LAND SCAPE

205 Happy Hollow Court
Lafayette Ca. 94549
Tel 415.271.1899
www.fieldarch.com

Stamp

LICENSED LANDSCAPE ARCHITECT
Christopher Yetter 4553
Signature
Renewal Date
Date
STATE OF CALIFORNIA

ANN B. CARROLL
IRRIGATION DESIGN CONSULTANTS
P.O. BOX 1967
GARDNERVILLE, NV 89410
TEL 775.266.3589 CELL 510.816.1796
E-MAIL ANN.CARROLL1313@GMAIL.COM

FRED TOOFAN RESIDENCE
200 HAPPY ACRES ROAD
LOS GATOS, CA 95030

Revisions:

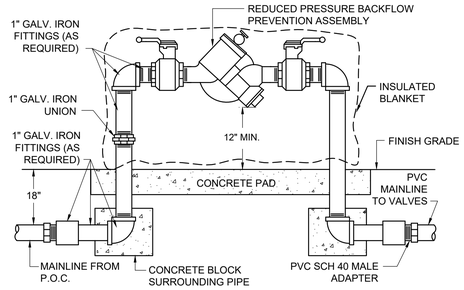
IRRIGATION PLAN

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

DATE : FEBRUARY 1, 2024

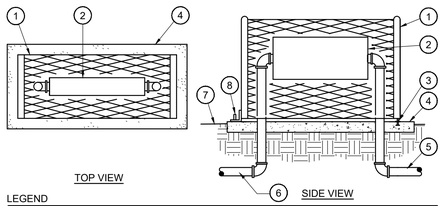
SHEET : I2.0

NOTE: EVENLY COAT METAL FITTINGS EXPOSED TO SOIL AND CONCRETE WITH 3M SCOTCHRAP PIPE PRIMER AND THEN WRAP WITH 3M SCOTCHRAP NO. 51 BLACK TAPE (3/4" OVERLAP). USE DIELECTRIC FITTINGS WHERE DISSIMILAR METALS COME INTO CONTACT.



1 REDUCED PRESSURE BACKFLOW ASSEMBLY

NOT TO SCALE

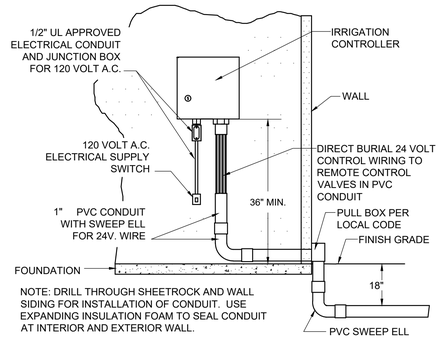


LEGEND

1. METAL BACKFLOW ENCLOSURE.
2. BACKFLOW PREVENTER.
3. HOLD DOWN ASSEMBLY (TYPICAL).
4. POURED CONCRETE BASE. - 6" MINIMUM THICKNESS - EXTEND 4" BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE.
5. MAINLINE TO VALVES.
6. MAINLINE FROM POINT OF CONNECTION OR WATER METER.
7. FINISH GRADE.
8. SUPPORT ROD (TYPICAL).

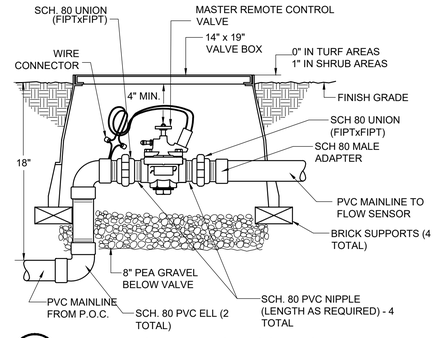
2 U-SHAPE BACKFLOW ENCLOSURE

NOT TO SCALE



3 INSIDE WALL MOUNT CONTROLLER DETAIL

NOT TO SCALE



4 MASTER REMOTE CONTROL VALVE

NOT TO SCALE

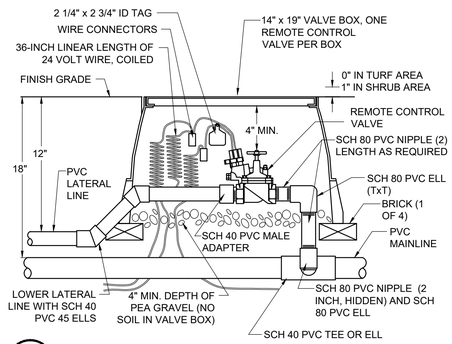
#20 GAUGE DIRECT BURIAL SENSOR CABLE, PROVIDE 36" EXTRA CABLE. (MUST BE RUN IN 1" CONDUIT FROM SENSOR TO CONTROLLER)



NOTE: FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) VERTICAL AND BODY (TEE) POSITIONED HORIZONTALLY.

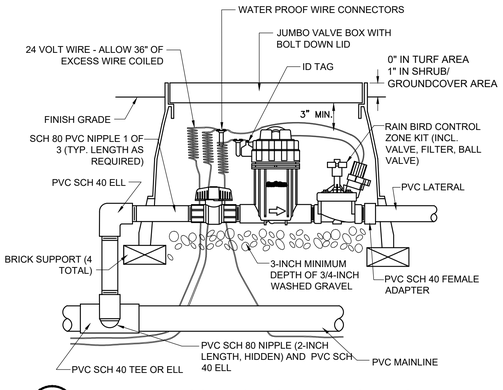
5 FLOW SENSOR INSTALLATION DETAIL

NOT TO SCALE



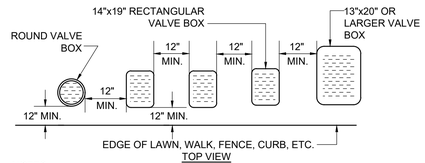
6 REMOTE CONTROL VALVE

NOT TO SCALE



7 RAIN BIRD CONTROL ZONE KIT - LOW FLOW

NOT TO SCALE

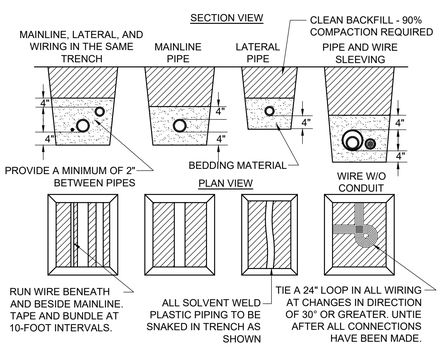


NOTES:

1. CENTER BOX OVER VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.
3. SET VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN AREA ONLY IF GROUND COVER/SHRUB AREA DOES NOT EXIST ADJACENT TO LAWN.
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOX EDGES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES.
6. VALVE BOXES SHALL HAVE BOLT DOWN LIDS WITH BOLTS INSTALLED.
7. VALVE BOXES SHALL BE BY NDS, CARSON, OR EQUAL.

8 VALVE BOX INSTALLATION DETAIL

NOT TO SCALE



NOTES:

1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SPECIFIED PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.

9 PIPE AND WIRE TRENCHING

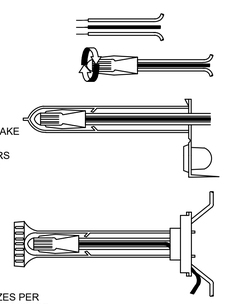
NOT TO SCALE

STEP 1: STRIP WIRES 1/2" FROM ENDS.

STEP 2: APPLY SCOTCHLOK Y SPRING CONNECTOR IN A CLOCKWISE DIRECTION.

STEP 3: INSERT SPLICE TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT BOTTOM OF TUBE.

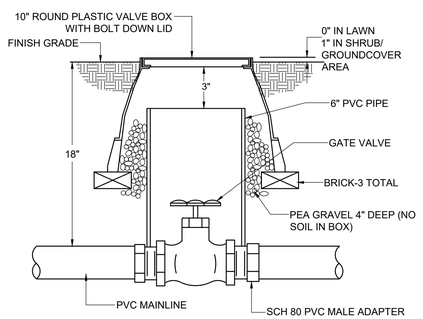
STEP 4: POSITION WIRES IN WIRE CHANNELS AND CLOSE INSULATOR TUBE COVER.



NOTE: MAXIMUM WIRE SIZES PER CONNECTOR ARE THREE # 14'S OR TWO #12'S.

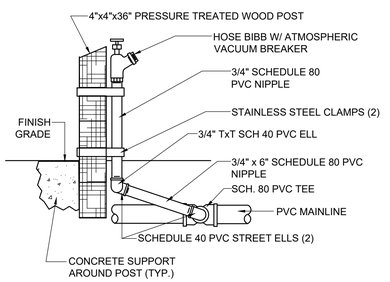
10 WIRE CONNECTION DETAIL

NOT TO SCALE



11 GATE VALVE DETAIL - 2" & SMALLER

NOT TO SCALE



12 HOSE BIBB DETAIL

NOT TO SCALE

FIELD LAND SCAPE

205 Happy Hollow Court
Lafayette Ca. 94549
Tel 415.271.1899
www.fieldarch.com

Stamp

LICENSED LANDSCAPE ARCHITECT
Christopher Yates 4533
Signature
Renewal Date
Date
STATE OF CALIFORNIA

ANN B. CARROLL
IRRIGATION DESIGN CONSULTANTS
P.O. BOX 1967
GARDNERVILLE, NV 89410
TEL 775.266.3589 CELL 510.816.1796
E-MAIL ANN.CARROLL1313@GMAIL.COM

FRED TOOFAN RESIDENCE
200 HAPPY ACRES ROAD
LOS GATOS, CA 95030

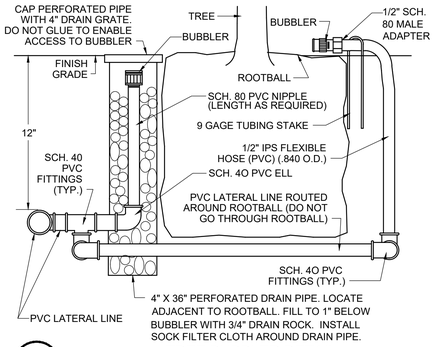
Revisions:

IRRIGATION DETAILS-1

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

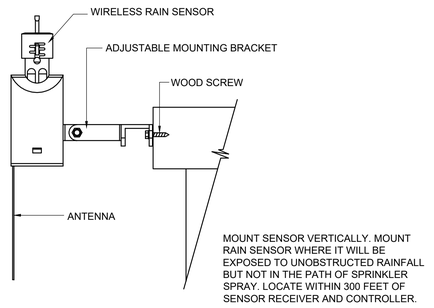
DATE : FEBRUARY 1, 2024

SHEET : I3.0



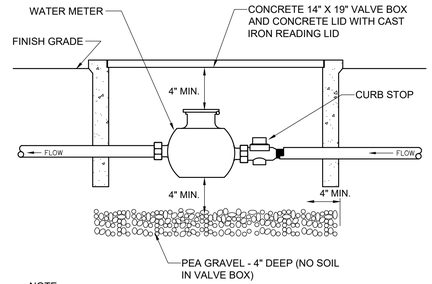
15 TREE BUBBLER DETAIL

NOT TO SCALE



14 WIRELESS RAIN SENSOR INSTALLATION DETAIL

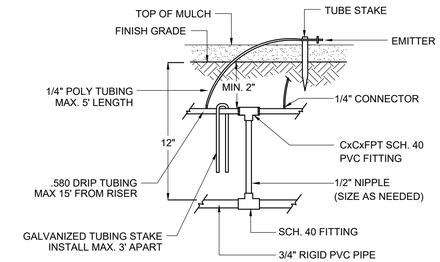
NOT TO SCALE



NOTE:
1. INSTALL PER MANUFACTURER'S AND LOCAL UTILITY INSTRUCTIONS.
2. INLET AND OUTLET PIPE TO MATCH EXISTING TYPE AND SIZE.
3. PIPE THROUGH METER SHALL BE COPPER.

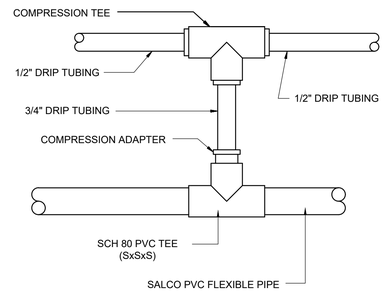
15 TYPICAL WATER METER INSTALLATION

NOT TO SCALE



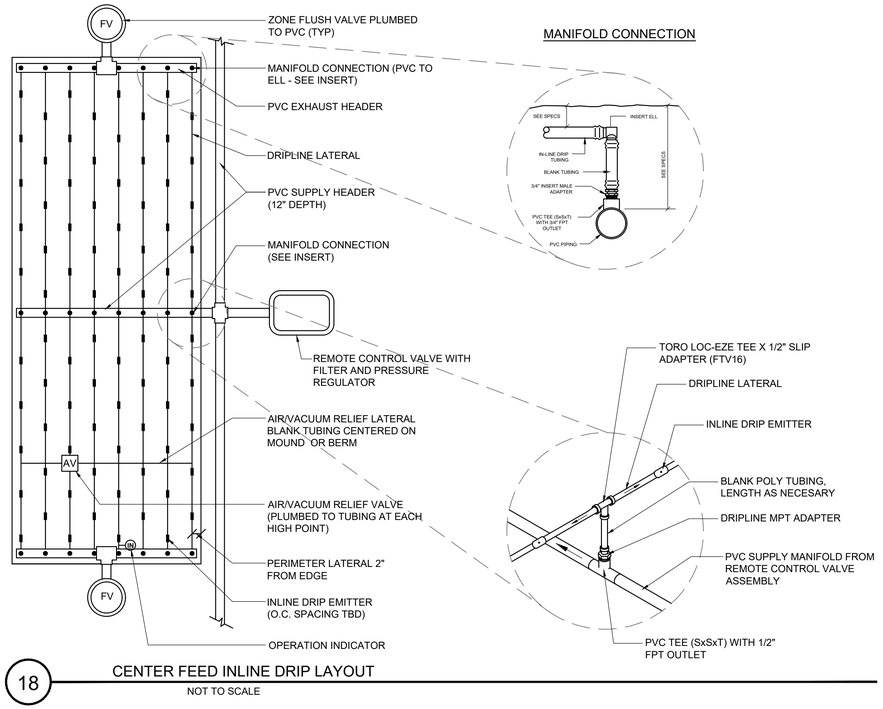
16 RISER TO DRIP TUBING DETAIL

NOT TO SCALE



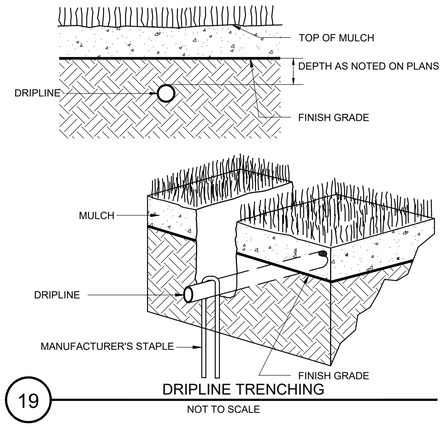
17 MANIFOLD CONNECTION (PVC TO TUBING)

NOT TO SCALE



18 CENTER FEED INLINE DRIP LAYOUT

NOT TO SCALE



19 DRIPLINE TRENCHING

NOT TO SCALE

FIELD LAND SCAPE
205 Happy Hollow Court
Lafayette Ca. 94549
Tel 415.271.1899
www.fieldarch.com

Stamp

LICENSED LANDSCAPE ARCHITECT Christopher Yates 4824 Signature Renewal Date Date STATE OF CALIFORNIA

ANN B. CARROLL
IRRIGATION DESIGN CONSULTANTS
P.O. BOX 1967
GARDNERVILLE, NV 89410
TEL 775.266.3589 CELL 510.816.1706
E-MAIL ANN.CARROLL1313@GMAIL.COM

FRED TOOFAN RESIDENCE
200 HAPPY ACRES ROAD
LOS GATOS, CA 95030

Revisions:

IRRIGATION DETAILS-2

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

DATE : FEBRUARY 1, 2024

SHEET : I4.0

Toofan Residence

HYDROZONE SUMMARY

*Hydrozone Description	Total Sq. Ft.	% of Landscape
Cool Season Turf (CST)	0	0.0%
Warm Season Turf (WST)	0	0.0%
High Water Use Plants (HW)	0	0.0%
Bioretention Plants (BR)	0	0.0%
Medium Water Use Plants (MW)	0	0.0%
Low Water Use Plants (LW)	1,080	100.0%
Very Low Water Use Plants (VLW)	0	0.0%
Water Feature	0	0.0%
Special Landscape Area (SLA)	0	0.0%
TOTAL	1,080	100.0%

**Irrigation Method	Total Sq. Ft.	% of Landscape
Rotor (FC-R, PC-R)	0	0.0%
Multi-Stream Rotator (MR)	0	0.0%
Spray (S)	0	0.0%
Bubbler (B)	271	25.1%
Drip (D)	329	30.5%
In-Line Drip (DL)	480	44.4%
Micro Spray (MS)	0	0.0%
Other (O)	0	0.0%
	1,080	

CITY OF
Los Gatos
LANDSCAPE WATER USE STATEMENT

PROJECT NAME: **Toofan Residence**
PROJECT ADDRESS: 200 Happy Acres Road, Los Gatos, CA 95030

PREPARED BY: ANN B. CARROLL
ANN B. CARROLL, IRRIGATION DESIGN CONSULTANTS
1885 AUSTIN STREET
GARDNERVILLE, NV. 89410
775-266-3589 (OFFICE)
510-816-1796
Ann.Carroll1313@gmail.com

"I have complied with the criteria of the Water Efficient Landscape Ordinance and applied them accordingly for the efficient use of water in the irrigation design plan."

Signed: Ann Carroll

PART ONE	**MAXIMUM APPLIED WATER ALLOWANCE (MAWA)**	
	MAWA = ETo x .62 x [(ETAFx HA) + ((1-ETAF) x SLA)]	
	YEARLY ETo	43.0
	CONVERSION FACTOR	0.62
	ETAF	0.55
	TOTAL IRRIGATED LANDSCAPE AREA (HA)	1,080 SQUARE FEET
	SPECIAL LANDSCAPE AREA (SLA)	0 SQUARE FEET
	LANDSCAPE WATER ALLOWANCE	**15,836 GALLONS PER YEAR**
	TOTAL ACRE FEET	0.05 ACRE FEET

PART TWO	**ESTIMATED TOTAL WATER USE (ETWU)**	
	(AVERAGE *ETAF* AND *ETWU* FROM WATER EFFICIENT LANDSCAPE WORKSHEET)	
	AVERAGE ETAF FOR REGULAR LANDSCAPE AREAS (TOTAL ETAF x AREA / TOTAL AREA)	0.37
	ETWU FOR REGULAR LANDSCAPE AREAS	**10,664 GALLONS PER YEAR**
	SITE WIDE ETAF	0.37
	ETWU FOR ALL LANDSCAPE AREAS	**10,664 GALLONS PER YEAR**
	TOTAL ACRE FEET	0.03 ACRE FEET

Toofan Residence
WATER EFFICIENT LANDSCAPE WORKSHEET

Reference Evapotranspiration (Eto) **43**

ZONE NO.	PLANT TYPE	HYDROZONE* (PLANT WATER USE)	PLANT FACTOR (PF)	DENISTY FACTOR (Kd)	MICRO-CLIMATE FACTOR (Kmc)	AVG LANDSCAPE COEFFICIENT	IRRIGATION METHOD**	IRRIGATION EFFICIENCY (IE)	ETAF (PF/IE)	HYDROZONE AREA (HA) (Sq Ft)	ETAF x HA	ESTIMATED TOTAL WATER USE (ETWU)	% LANDSCAPE AREA	PRECIP. RATE	GPM	DRIPLINE LENGTH	ARV
REGULAR LANDSCAPE AREA																	
C-1	SHRUB	LW	0.30	1.00	1.00	0.30	D	0.81	0.37	34	13	336	3.1%	0.37	0.13	0	0
C-2	SHRUB	LW	0.30	1.00	1.00	0.30	DL	0.81	0.37	240	89	2,370	22.2%	0.96	2.40	160	1
C-3	SHRUB	LW	0.30	1.00	1.00	0.30	DL	0.81	0.37	240	89	2,370	22.2%	0.96	2.40	160	1
C-4	TREE	LW	0.30	1.00	1.00	0.30	B	0.81	0.37	120	44	1,185	11.1%	6.42	8.00	0	0
C-5	TREE	LW	0.30	1.00	1.00	0.30	B	0.81	0.37	151	56	1,491	14.0%	7.65	12.00	0	0
C-6	SHRUB	LW	0.30	1.00	1.00	0.30	D	0.81	0.37	295	109	2,913	27.3%	0.12	0.36	0	0
POOL / SPA COVERED		WF	0.50	1.00	1.00	0.50		1.00	0.50		0	0	0.0%				
FOUNTAIN		WF	0.80	1.00	1.00	0.80		1.00	0.80		0	0	0.0%				
TOTALS (REGULAR LANDSCAPE AREAS)										**1,080**	**400**	**10,664**	**100.0%**				
SPECIAL LANDSCAPE AREA																	
	0						0		1.00	0	0	0	0.0%	0.00	0.00	0	0
TOTALS (SPECIAL LANDSCAPE AREAS)										**0**	**0**	**0**	**0.0%**				
TOTALS FOR ALL AREAS										***1,080***	***400***	***10,664***	***100%***				

FIELD
LAND
SCAPE

205 Happy Hollow Court
Lafayette Ca. 94549
Tel 415.271.1899
www.fieldarch.com

Stamp

LICENSED LANDSCAPE ARCHITECT
Christopher Yates 4826
Signature
Renewal Date
Date
STATE OF CALIFORNIA

ANN B. CARROLL
IRRIGATION DESIGN CONSULTANTS
P.O. BOX 1967
GARDNERVILLE, NV 89410
TEL 775.266.3589 CELL 510.816.1796
E-MAIL ANN.CARROLL1313@GMAIL.COM

FRED TOOFAN RESIDENCE
200 HAPPY ACRES ROAD
LOS GATOS, CA 95030

Revisions:

IRRIGATION
WATER CALCS

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

DATE : FEBRUARY 1, 2024

SHEET : I5.0

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA

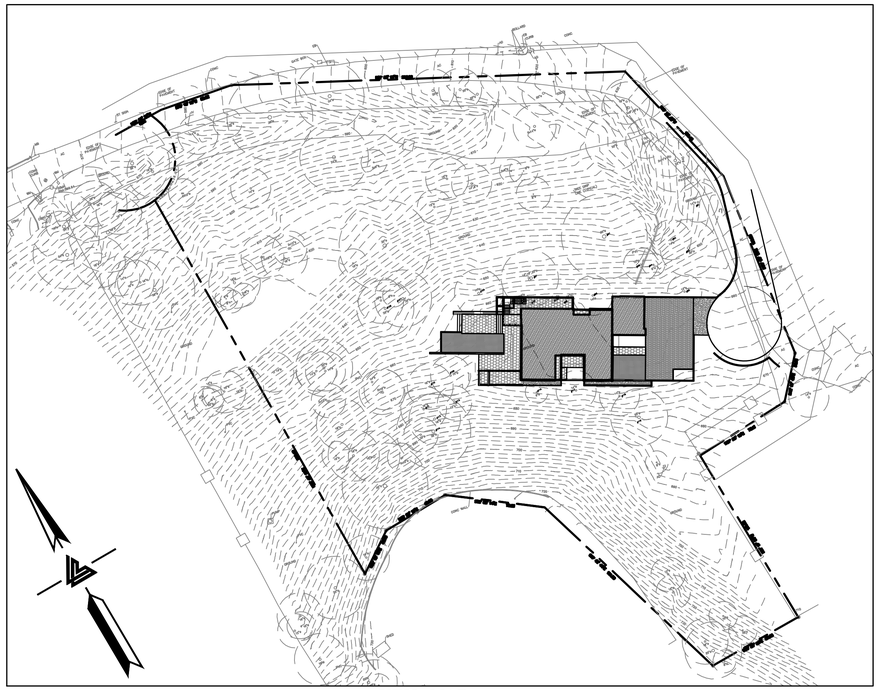
LEGEND

PROPOSED	DESCRIPTION
	BOUNDARY
	PROPERTY LINE
	RETAINING WALL
	LANDSCAPE RETAINING WALL
RW — RW	RAINWATER TIGHTLINE
SUB	SUBDRAIN LINE
TL	TIGHTLINE
SD	STORM DRAIN LINE
SS	SANITARY SEWER LINE
W	WATER LINE
G	GAS LINE
SDP	STORM DRAIN PRESSURE LINE
SSP	SANITARY SEWER PRESSURE LINE
JT	JOINT TRENCH
	SET BACK LINE
	CONCRETE VALLEY GUTTER
	EARTHEN SWALE
CB	CATCH BASIN
JB	JUNCTION BOX
AD	AREA DRAIN
	CURB INLET
SDMH	STORM DRAIN MANHOLE
	FIRE HYDRANT
SSMH	SANITARY SEWER MANHOLE
	STREET SIGN
222.57 INV	SPOT ELEVATION
	FLOW DIRECTION
D	DEMOLISH/REMOVE
	BENCHMARK
200	CONTOURS
XX" TREE	TREE TO BE REMOVED
TP	TREE PROTECTION FENCING

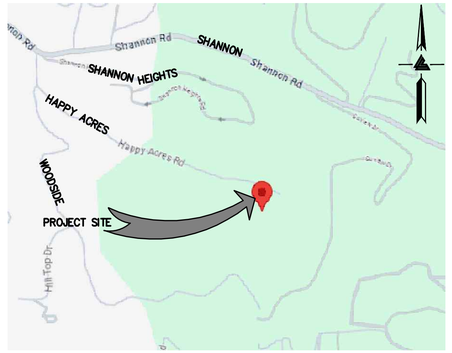
NOTES:

EXISTING FROM TOPO BY OTHERS

- "ATION) =
- * CENTER LINE =
- * STREET LAMP = SL
- * FIRE HYDRANT =
- * SEWER LINE = ss
- * FENCE =
- * WATER METER = WM
- * ASPHALT = AC
- * SANITARY SEWER CLEAN OUT = SSCO
- * SANITARY SEWER MAN HOLE = SSMH
- * ELECTRIC BOX = EB
- * JOINT POLE =
- * CONCRETE = CONC
- * MAIL BOX = MB
- BOUNDARY LINE =
- * SURVEY MONUMENT =
- * AREA DRAIN = AD
- * IRRIGATION VALVE = IV
- * PLASTIC PIPE = PVC



KEY MAP
1" = 50'



VICINITY MAP
NTS

OWNER'S INFORMATION

OWNER:
FRED TOOFAN
7041 VIA ANACAPA
SAN JOSE, CA 95139

APN: 537-24-030

REFERENCES

THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO:

1. TOPOGRAPHIC SURVEY BY SMP ENGINEERS, ENTITLED:
"PRELIMINARY BOUNDARY AND TOPOGRAPHIC SURVEY MAP"
HAPPY ACRES ROAD
LOS GATOS, CA
DATED: 07/29/2020
JOB#: 220062

2. SITE PLAN BY NOEL CROSS ARCHITECTS ENTITLED:
"TOOFAN RESIDENCE"
200 HAPPY ACRES
LOS GATOS, CA
DATED: 12/2023
JOB#: 20.06

3. SOIL REPORT BY GEOFORENSICS INC. ENTITLED:
"GEOTECHNICAL INVESTIGATION"
200 HAPPY ACRES ROAD
LOS GATOS, CA
DATED: 12/16/2021
JOB#: 221020

4. LANDSCAPE PLAN BY FIELD LANDSCAPE, ENTITLED:
"TOOFAN RESIDENCE"
200 HAPPY ACRES
LOS GATOS, CA
DATED: 12/15/2023

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

*** BUILDING PAD NOTE:**
ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.



ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACC	ACCESSIBLE	MH	MANHOLE
AD	AREA DRAIN	MIN	MINIMUM
BC	BEGINNING OF CURVE	MON.	MONUMENT
B & D	BEARING & DISTANCE	MRO	METERED RELEASE OUTLET
BM	BENCHMARK	(N)	NEW
BUB	BUBBLER BOX	NO.	NUMBER
BW/FG	BOTTOM OF WALL/FINISH GRADE	NTS	NOT TO SCALE
		O.C.	ON CENTER
CB	CATCH BASIN	O/	OVER
C & G	CURB AND GUTTER	(PA)	PLANTING AREA
℄	CENTER LINE	PED	PEDESTRIAN
CPP	CORRUGATED PLASTIC PIPE (SMOOTH INTERIOR)	PIV	POST INDICATOR VALVE
		PSS	PUBLIC SERVICES EASEMENT
CO	CLEANOUT	ℙ	PROPERTY LINE
COTG	CLEANOUT TO GRADE	PP	POWER POLE
CONC	CONCRETE	PUE	PUBLIC UTILITY EASEMENT
CONST	CONSTRUCT or –TION	PVC	POLYVINYL CHLORIDE
CONC COR	CONCRETE CORNER	R	RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DIAMETER	RIM	RIM ELEVATION
DI	DROP INLET	RW	RAINWATER
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
EA	EACH	S	SLOPE
EC	END OF CURVE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATIONS	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SDMH	STORM DRAIN MANHOLE
EQ	EQUIPMENT	SHT	SHEET
EW	EACH WAY	S.L.D.	SEE LANDSCAPE DRAWINGS
(E)	EXISTING	SPEC	SPECIFICATION
FC	FACE OF CURB	SS	SANITARY SEWER
FF	FINISHED FLOOR	SSCO	SANITARY SEWER CLEANOUT
FG	FINISHED GRADE	SSMH	SANITARY SEWER MANHOLE
FH	FIRE HYDRANT	ST.	STREET
FL	FLOW LINE	STA	STATION
FS	FINISHED SURFACE	STD	STANDARD
G	GAS	STRUCT	STRUCTURAL
GA	GAGE OR GAUGE	T	TELEPHONE
GB	GRADE BREAK	TC	TOP OF CURB
HDPE	HIGH DENSITY CORRUGATED POLYETHYLENE PIPE	TOW	TOP OF WALL
		TEMP	TEMPORARY
HORIZ	HORIZONTAL	TP	TOP OF PAVEMENT
HI PT	HIGH POINT	TW/FG	TOP OF WALL/FINISH GRADE
H&T	HUB & TACK	TYP	TYPICAL
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
INV	INVERT ELEVATION	VCP	VITRIFIED CLAY PIPE
JB	JUNCTION BOX	VERT	VERTICAL
JT	JOINT TRENCH	W/	WITH
JP	JOINT UTILITY POLE	W, WL	WATER LINE
L	LENGTH	WM	WATER METER
LNDG	LANDING	WWF	WELDED WIRE FABRIC

RETAINING WALL NOTES

1. TW/FG REPRESENTS FINISHED EARTHEN GRADE OR PAVEMENT ELEVATION AT TOP OF WALL, NOT ACTUAL TOP OF WALL MATERIAL. BW/FG REPRESENTS FINISH EARTHEN GRADE OR PAVEMENT ELEVATION AT BOTTOM OF WALL NOT INCLUDING FILL FOUNDATION. GRADES INDICATED ON THESE PLANS REFER TO THE FINISHED GRADES ADJACENT TO THE RETAINING WALL, NOT INCLUDING FOOTING, FREEBOARD, ETC.
2. DIMENSIONS SHOWN IN BRACKETS SHOWN AS [X.X'] DENOTE THE EFFECTIVE WALL HEIGHT ONLY. THE ACTUAL WALL HEIGHT AND DEPTH MAY DIFFER DUE TO CONSTRUCTION REQUIREMENTS.
3. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR STRUCTURAL ELEMENTS, FREEBOARD, AND EMBEDMENT.
4. REFER TO ARCHITECTURAL, LANDSCAPE ARCHITECTURE, AND/OR STRUCTURAL PLANS FOR DETAILS, WALL ELEVATIONS, SUBDRAINAGE, WATERPROOFING, FINISHES, COLORS, STEEL REINFORCING, MATERIALS, ETC. PROVIDE CLIPS OR OTHER MEANS OF SECURING FINISH MATERIALS AS NECESSARY (WET SET INTO THE WALL).
5. ALL RETAINING WALLS SHOULD HAVE A BACK-OF-WALL SUB-SURFACE DRAINAGE SYSTEM INCLUDING WEEPHOLES TO PREVENT HYDROSTATIC PRESSURE.
6. SEE DETAIL SHEET FOR SPECIFIC INFORMATION.
7. PROVIDE GUARDRAIL (WHERE APPLICABLE AND DESIGNED BY OTHERS) AS REQUIRED FOR GRADE SEPARATION OF 30 INCHES OR MORE MEASURED 5' HORIZONTALLY FROM FACE OF WALL, PER CBC.

ESTIMATED EARTHWORK QUANTITIES

CUBIC YARDS	HOUSE FOOTPRINT EXCLD BASEMENT	ACCESS: DRIVEWAY, PARKING, TURNAROUND	POOL AREA	HARDSCAPE AREAS	LANDSCAPE AREAS	TOTAL CUBIC YARDS
CUT	315 (3' CUT)	20	190	80 (3' CUT)	65 (2' CUT)	670
FILL	0 (0' FILL)	50 (1.5' FILL)	0 (0' FILL)	10 (1' FILL)	50 (2' FILL)	110
EXPORT						560

NOTE:

GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS, SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.

DISCLAIMER:

SMP ENGINEERS OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN.

NOTE:

THIS MAP REPRESENTS TOPOGRAPHY OF THE SURFACE FEATURES ONLY. UNLESS SPECIFIED ON THIS MAP, LOCATIONS OF THE UNDERGROUND UTILITIES ARE NEITHER INTENDED NOR IMPLIED. FOR THE LOCATIONS OF UNDERGROUND UTILITIES CALL "USA" (1-800-642-2444). SURFACE FEATURES ARE LOCATED BY MEANS OF A STATION AND OFFSET FROM THE CONTROL LINE.

BASIS OF BEARINGS:

FOUND SURVEY MONUMENTS. RECORD INFORMATION WAS USED. PER RECORD MAP, BOOK: 742 PAGE: 7 WHICH IS FILED IN THE COUNTY OF SANTA CLARA RECORDER'S OFFICE.

PROJECT BENCHMARK:

S.C.V.W.D. BENCHMARK BM: 338 ELEVATION: 337.03 (NAVD 88 DATUM)

SITE BENCHMARK:

SURVEY CONTROL SET MAG NAIL ELEVATION=569.50 (NAVD 88 DATUM)

NOTES FROM TOPO BY SMP:

1. ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF.
2. THE GROSS AREA OF LAND OF RECORD IS 118,816.11 SQ. FT. ±.
3. THE MAP WAS BASED ON A GRANT DEED DOC.# 24446095 BY STEWART TITLE CO. DATED 04/02/2020, RECORDED IN SANTA CLARA COUNTY.
4. ALL EXISTING BUILDINGS ARE WOOD.
5. FOR PRECISE SPECIES OF TREES A CERTIFIED ARBORIST SHALL BE CONSULTED.
6. THIS DRAWING REPRESENTS A TOPOGRAPHIC SURVEY PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE PROPERTY LINES SHOWN HEREON ARE COMPILED FROM RECORD DATA AND REPRESENT THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES. PURSUANT TO THE CLIENT'S DIRECTION A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES.

SHEET INDEX

C-1.0	TITLE SHEET
C-1.1	OVERALL SITE PLAN
C-2.0	GRADING & DRAINAGE PLAN
C-3.1	UTILITY PLAN
C-4.0	DETAILS
C-4.1	DETAILS
C-5.0	GRADING SPECIFICATIONS
ER-1	EROSION CONTROL
ER-2	EROSION CONTROL DETAILS
SW-1	STORMWATER POLLUTION PREVENTION PLAN

REGISTERED PROFESSIONAL ENGINEER PETER CARLSON No. C79550 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
APN: 537-24-030
SANTA CLARA COUNTY

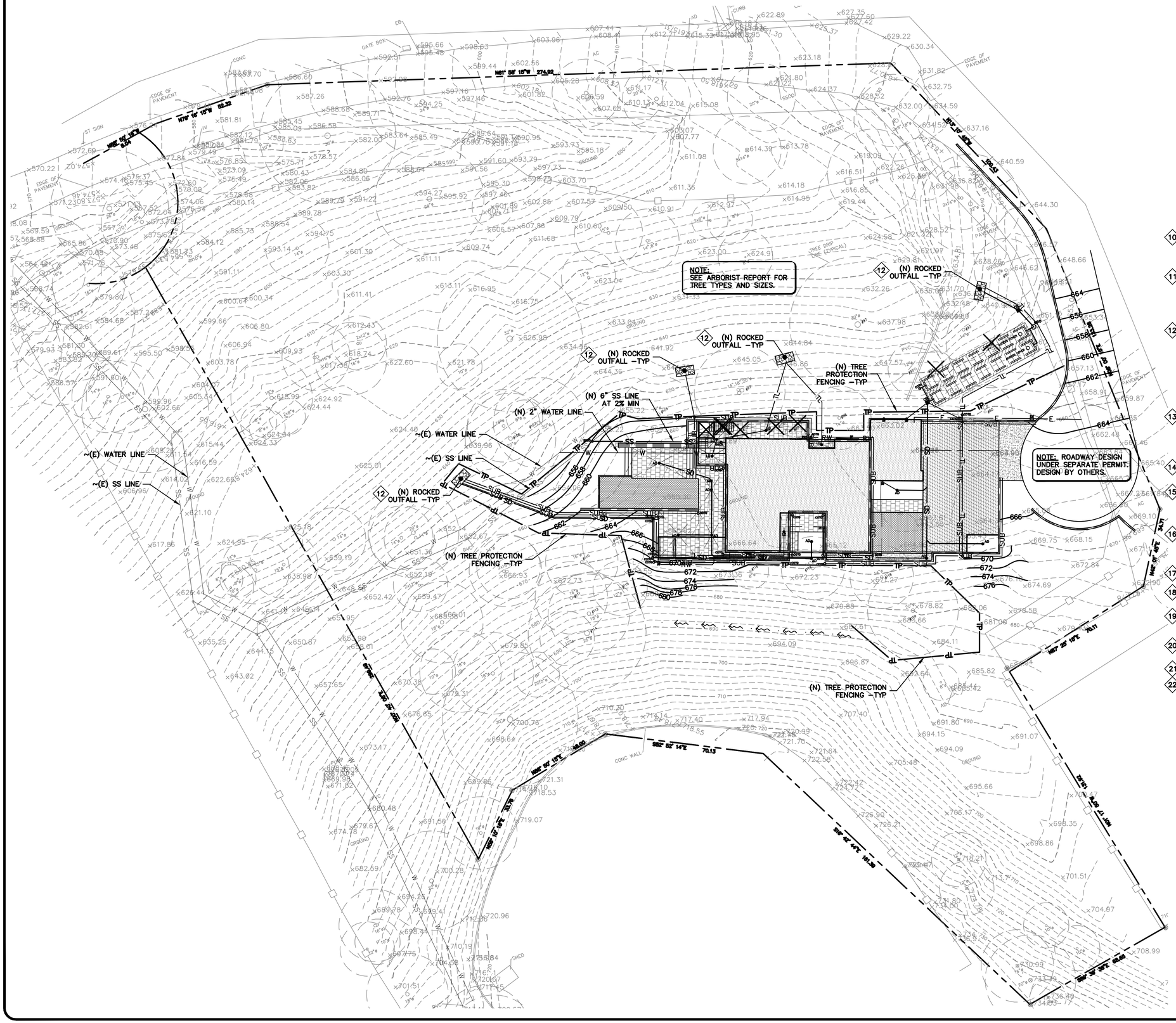
TITLE SHEET

REVISIONS	BY
–	–
–	–
–	–
–	–
–	–

JOB NO: 2232132
DATE: 06-05-24
SCALE: 1" = 50'
DESIGN BY: TB
CHECKED BY: JH
SHEET NO:

C-1.0

01 OF 10 SHEETS



0 10 20 40

SCALE: 1" = 20'

STORM DRAIN KEYNOTES 10 TO 22

10 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

11 INSTALL (N) PEDESTAL PAVER PATIOS/WALKWAYS/LIGHTWELLS DRAIN SYSTEM. SEE DETAIL 3 ON SHEET C-4.0.

12 INSTALL (N) RETAINING WALL SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN. SEE DETAIL 4 ON SHEET C-4.0.

13 INSTALL (N) BASEMENT SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN. SEE DETAIL 5 ON SHEET C-4.0.

14 INSTALL (N) DRIVEWAY SUBDRAIN SYSTEM. CONNECT TO STORM DRAIN SYSTEM AS SHOWN. SEE DETAIL 6 ON SHEET C-4.0.

15 CONSTRUCT (N) EARTHEN SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 7 ON SHEET C-4.0.

16 CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM. DIRECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLANS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES, HOWEVER, DO NOT CONNECT TO SUBDRAIN LINES. SEE DETAIL 8 ON SHEET C-4.0.

17 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 1 ON SHEET C-4.1.

18 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 2 ON SHEET C-4.1.

19 INSTALL (N) "CHRISTY F08" AREA DRAINS. CONNECT TO ON-SITE STORM DRAIN SYSTEM. SEE DETAIL 3 ON C-4.1.

20 INSTALL (N) 4" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE IN LANDSCAPE OR PLANTER AREAS (NDS PART 78 OR 90 FOR 6" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE). SEE DETAIL 4 ON C-4.1.

21 INSTALL (N) CATCH BASIN . SEE DETAIL 4 ON SHEET C-4.1.

22 INSTALL (N) METERED RELEASE OUTLET (MRO). SEE DETAIL 5 ON C-4.1.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116.
aabaya@leabraze.com

PETER CARLSON
No. C79559
CIVIL
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
ORIGINAL SIGNATURES IN BLUE INK

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

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

OVERALL SITE PLAN

-		-	
-		-	
-		-	
-		-	
-		-	
REVISIONS		BY	

JOB NO:	2232132
DATE:	06-05-24
SCALE:	1" = 20'
DESIGN BY:	TB
CHECKED BY:	JH

SHEET NO:

C-1.1

02 OF 10 SHEETS

NOTE:
SEE ARBORIST REPORT FOR TREE TYPES AND SIZES.

(N) ROCKED OUTFALL –TYP

643.00 FL

RIM 648.00

RIM 651.80

MRO

41 (E) TREE TO BE REMOVED

ACCESS COVER

RIM 657.00

42 (N) TREE PROTECTION FENCING –TYP

(E) TREE TO BE REMOVED –TYP 41

LIGHTWELL PLANTER

(N) ROCKED OUTFALL –TYP

647.00 FL

(N) GARAGE
*SLAB: 664.98

(N) HOUSE
FF: 664.98±
BSMT SLAB: 652.58±

(N) POOL
COPING: 664.46±

3 6 (N) PEDESTAL PAVER PATIO

(N) LIGHTWELL

5 (N) GRAVEL PAVE DRIVEWAY

(N) REFLECTING POOL

(N) TREE PROTECTION FENCING –TYP 42

(N) GRAVEL PAVE WALKWAY 7

(N) EARTHEN SWALE TO DIRECT HILLSIDE RUN–OFF AWAY FROM HOUSE

CONC WALL

N87° 25' 15"E 70.11

S52° 52' 14"E 70.13

48.00

15"E

NOTE: ROADWAY DESIGN UNDER SEPARATE PERMIT. DESIGN BY OTHERS.

0 5 10 20

SCALE: 1" = 10'

FLATWORK KEYNOTES 1 TO 7

1. FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.4 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.12.1.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.
2. SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP
3. PROVIDE 2% SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 1804.4. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.
4. (N) CONCRETE DRIVEWAY. SEE DETAIL 1 ON SHEET C–4.0.
5. (N) GRAVEL PAVE DRIVEWAY. SEE DETAIL 2 ON SHEET C–4.0.
6. (N) PEDESTAL PAVER PATIOS/WALKWAYS/LIGHTWELLS. SEE DETAIL ARCHITECTURAL AND/OR LANDSCAPE PLANS FOR DETAILS.
7. (N) GRAVEL WALKWAY. SEE LANDSCAPE PLANS FOR DETAILS.

DEMOLITION KEYNOTES 40 TO 42

40. DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.
41. REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.
42. PROVIDE TREE PROTECTION AROUND TREES TO REMAIN. SEE DETAIL 6 ON SHEET ER–2.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

REGISTERED PROFESSIONAL ENGINEER PETER CARLSON NO. C79550 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

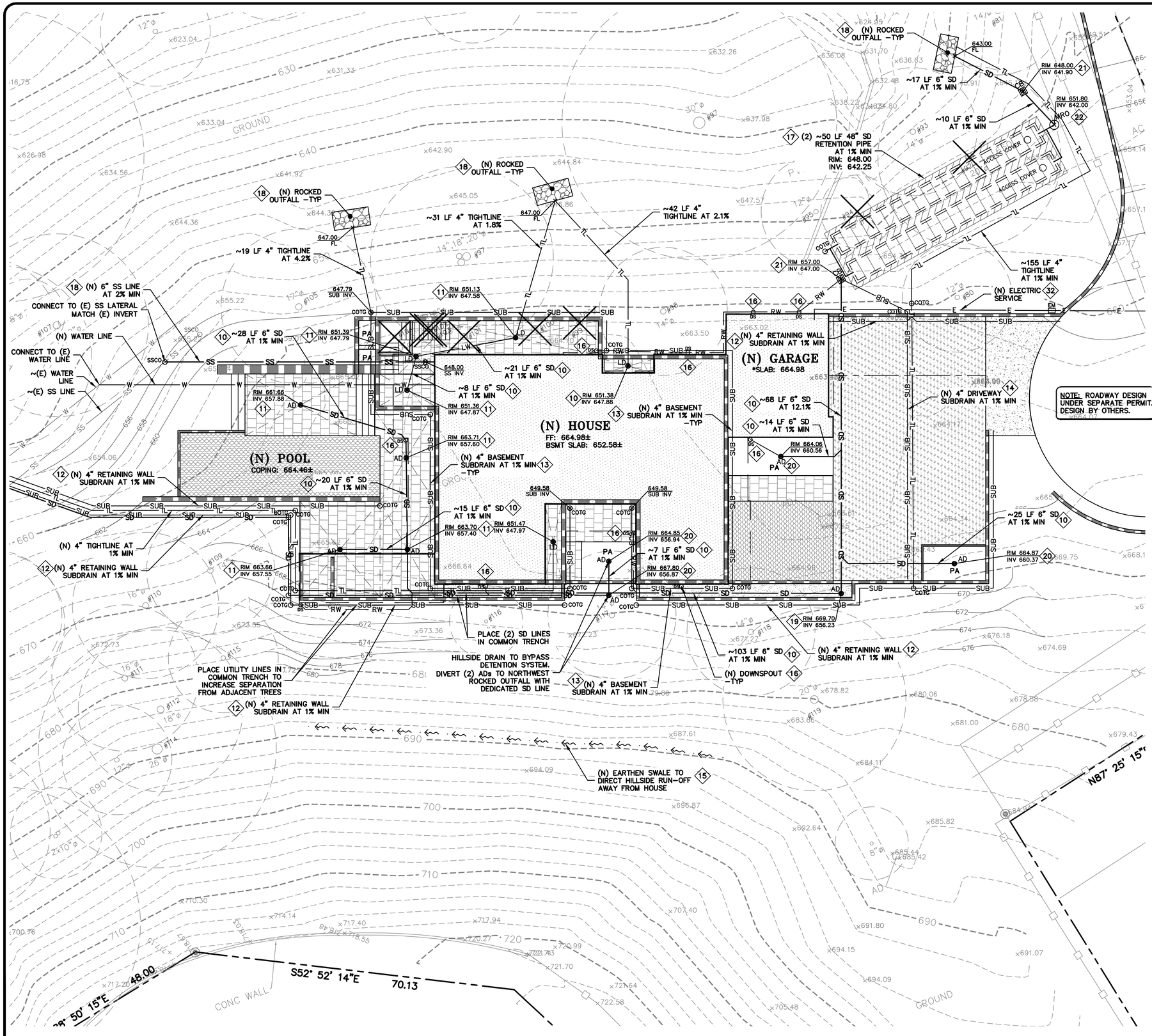
LEA & BRAZE ENGINEERING, INC.
CIVIL ENGINEERS I LAND SURVEYORS
MAIN OFFICE: 2495 INDUSTRIAL PKWY WEST HAYWARD, CALIFORNIA 94545 (510) 887-4086
REGIONAL OFFICES: ROSEVILLE DUBLIN SAN JOSE
WWW.LEABRAZE.COM

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537–24–030

GRADING & DRAINAGE PLAN

–	–
–	–
–	–
–	–
–	–
REVISIONS	BY
JOB NO:	2232132
DATE:	06–05–24
SCALE:	1" = 10'
DESIGN BY:	TB
CHECKED BY:	JH
SHEET NO:	C-2.0

03 OF 10 SHEETS



0 5 10 20

SCALE: 1" = 10'

STORM DRAIN KEYNOTES 10 TO 22

10 INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 6" PVC (SDR 35) OR HDPE (ADS N-12 W/ SMOOTH INTERIOR WALLS). MAINTAIN 24" MINIMUM COVER AND SLOPED AT 1% MINIMUM AT ALL TIMES UNLESS OTHERWISE NOTED. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

11 INSTALL (N) PEDESTAL PAVER PATIOS/WALKWAYS/LIGHTWELLS DRAIN SYSTEM. SEE DETAIL 3 ON SHEET C-4.0.

12 INSTALL (N) RETAINING WALL SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN. SEE DETAIL 4 ON SHEET C-4.0.

13 INSTALL (N) BASEMENT SUBDRAIN. USE PERFORATED 4" PVC (SDR-35) WITH HOLES DOWN AND SLOPED AT 1% MINIMUM SURROUND WITH 3/4" DRAIN ROCK WRAPPED IN FILTER FABRIC (MIRAFI 140N). MIRADRAIN OR OTHER LEA & BRAZE PREAPPROVED DRAINAGE SYSTEM MAY ALSO BE USED. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION AND AT 100' MAXIMUM INTERVALS. SUBDRAIN SHALL REMAIN A DEDICATED SEPARATE SYSTEM UNTIL IT CONNECTS TO STORM DRAIN SYSTEM OR OUTFALL AS SHOWN. SEE DETAIL 5 ON SHEET C-4.0.

14 INSTALL (N) DRIVEWAY SUBDRAIN SYSTEM. CONNECT TO STORM DRAIN SYSTEM AS SHOWN. SEE DETAIL 6 ON SHEET C-4.0.

15 CONSTRUCT (N) EARTHEN SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL. SEE DETAIL 7 ON SHEET C-4.0.

16 CONNECT RAIN WATER DOWNSPOUTS TO 4" PVC (SDR-35) TIGHTLINE, SLOPED AT 1% MINIMUM. DIRECT TO NEAREST STORM DRAIN LINE AS SHOWN ON PLANS. PROVIDE CLEANOUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS. TIGHTLINE MAY BE PLACED IN COMMON TRENCH WITH SUBDRAIN LINES, HOWEVER, DO NOT CONNECT TO SUBDRAIN LINES. SEE DETAIL 8 ON SHEET C-4.0.

17 INSTALL (N) RETENTION SYSTEM. SEE DETAIL 1 ON SHEET C-4.1.

18 INSTALL (N) RIP-RAP ENERGY DISSIPATER. SEE DETAIL 2 ON SHEET C-4.1.

19 INSTALL (N) "CHRISTY F08" AREA DRAINS. CONNECT TO ON-SITE STORM DRAIN SYSTEM. SEE DETAIL 3 ON C-4.1.

20 INSTALL (N) 4" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE IN LANDSCAPE OR PLANTER AREAS (NDS PART 78 OR 90 FOR 6" DIAMETER HEAVY DUTY PLASTIC BLACK GRATE). SEE DETAIL 4 ON C-4.1.

21 INSTALL (N) CATCH BASIN . SEE DETAIL 4 ON SHEET C-4.1.

22 INSTALL (N) METERED RELEASE OUTLET (MRO). SEE DETAIL 5 ON C-4.1.

UTILITIES KEYNOTES 30 TO 32

30 INSTALL (N) SANITARY SEWER LATERALS. USE 4" PVC (SDR-26) SLOPED AT 2% MINIMUM. CONNECT TO (E) SEWER MAIN AS SHOWN. PROVIDE CLEANOUT TO GRADE AT BUILDING AND BEHIND PROPERTY LINE AND AT MAJOR CHANGES IN DIRECTION AS SHOWN. REUSE (E) LATERAL IF POSSIBLE. CONNECT PER DISTRICT STANDARDS.

31 CONNECT (N) WATER SERVICE PER WATER DISTRICT STANDARDS. UPGRADE (E) WATER METER PER WATER DISTRICT STANDARDS AS APPLICABLE. INSTALL (N) 2" MINIMUM SERVICE LINE TO (N) RESIDENCE OR AS DIRECTED BY FIRE SPRINKLER DESIGNER.

32 INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.

NOTE:
FOR CONSTRUCTION STAKING SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

REGISTERED PROFESSIONAL ENGINEER PETER CARLIAD No. C79550 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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

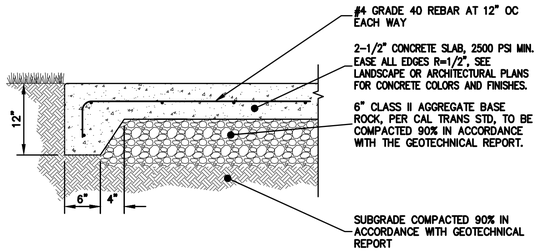
TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

UTILITY PLAN

REVISIONS	BY
-	-
-	-
-	-
-	-
-	-

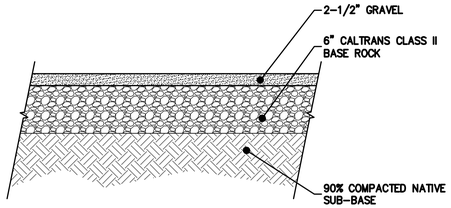
JOB NO:	2232132
DATE:	06-05-24
SCALE:	1" = 10'
DESIGN BY:	TB
CHECKED BY:	JH
SHEET NO:	C-3.0

04 OF 10 SHEETS

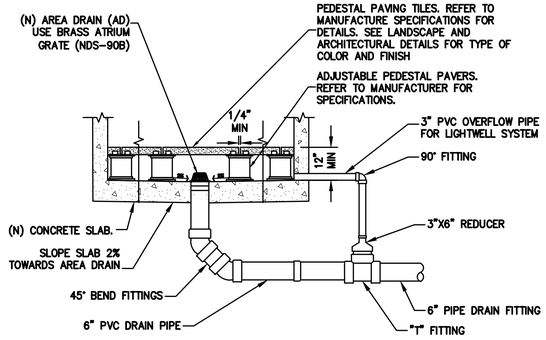


1 C-4.0 **DRIVEWAY SLAB OR CONC. PAVING**
NTS

NOTES:
1. PAVEMENT SECTIONS PER GEOTECHNICAL REPORT
2. SUBGRADE TO BE COMPACTED IN ACCORDANCE WITH GEOTECHNICAL REPORT
3. REFER TO LANDSCAPE OR ARCHITECTURAL PLANS FOR COLOR AND FINISH



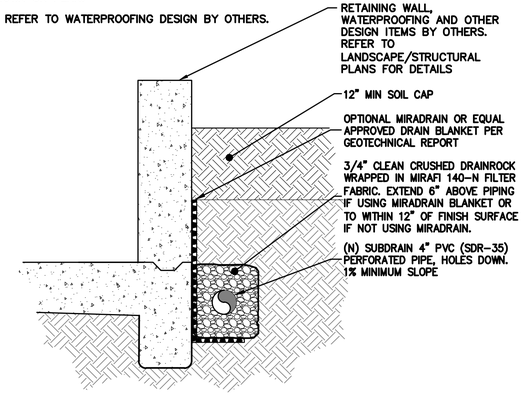
2 C-4.0 **GRAVEL SECTION**
NTS



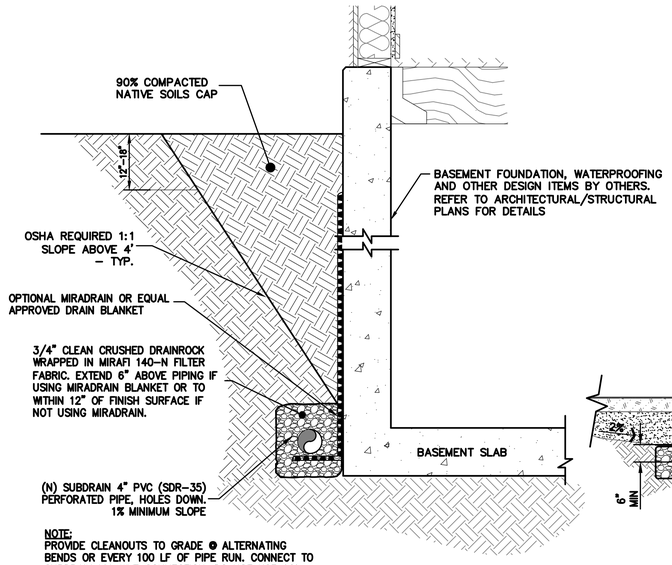
NOTES:
1. SLOPE INTERIOR SLAB OF LIGHTWELL @ 2% MIN IN ALL DIRECTIONS TO DIRECT FLOW TOWARDS INLET.
2. INSTALL 6" BRASS ATRIUM GRATE (NDS 90B OR EQUAL) WITH 6" PVC OUTGOING PIPE.
3. INSTALL 3" PVC OVERFLOW PIPE FOR LIGHTWELL AS SHOWN.
4. CONTRACTOR SHALL SUBMIT TO THE OWNER IN WRITING THE NEED FOR PERIODIC MAINTENANCE AND REMOVAL OF DEBRIS.
5. REFER TO STRUCTURAL PLAN FOR WALL CONSTRUCTION DETAIL.

3 C-4.0 **PEDESTAL PAVING**
NTS

NOTES:
1. PROVIDE CLEANOUTS TO GRADE AT ALTERNATING BENDS OR EVERY 100 LF OF PIPE RUN. CONNECT TO SUBDRAIN VIA WYE CONNECTION. DO NOT USE 90° BENDS. USE 90° SWEEP OR TWO 45° BENDS TO ALLOW FOR EASY CLEANOUT ACCESS.
2. REFER TO SPECIFIC WALL CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION SUCH AS STRUCTURAL DESIGN, FINISH GRADING ABOVE AND BELOW WALL AND IF WALL IS LEVEL ON TOP OR SLOPES
3. DO NOT COMBINE RAINWATER & SUBDRAIN LINES. DISCHARGE AS SHOWN ON PLAN.
4. REFER TO WATERPROOFING DESIGN BY OTHERS.

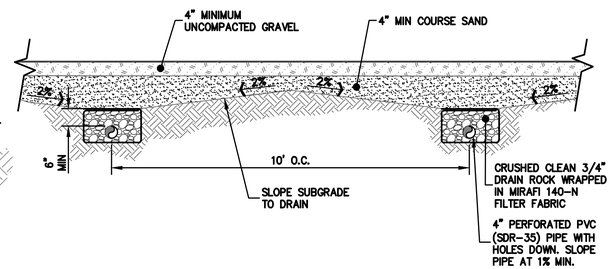


4 C-4.0 **SITE RETAINING WALL SUBDRAIN**
NTS



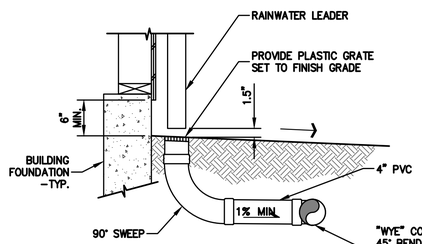
NOTE:
PROVIDE CLEANOUTS TO GRADE @ ALTERNATING BENDS OR EVERY 100 LF OF PIPE RUN. CONNECT TO SUBDRAIN VIA WYE CONNECTION. DO NOT USE 90° BENDS. USE 90° SWEEP OR TWO 45° BENDS TO ALLOW FOR EASY CLEANOUT ACCESS.

5 C-4.0 **BASEMENT SUBDRAIN**
NTS

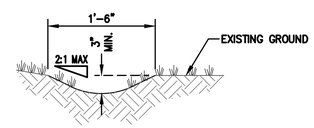


6 C-4.0 **GRAVEL DRIVEWAY SUBDRAIN**
NTS

REFER TO LANDSCAPE PLAN FOR FURTHER INFORMATION



7 C-4.0 **RAIN WATER LEADER TO TIGHTLINE CONNECTION**
NTS



8 C-4.0 **EARTHEN SWALE DETAIL**
NTS

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

REGISTERED PROFESSIONAL ENGINEER PETER CARLIAD No. C79550 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

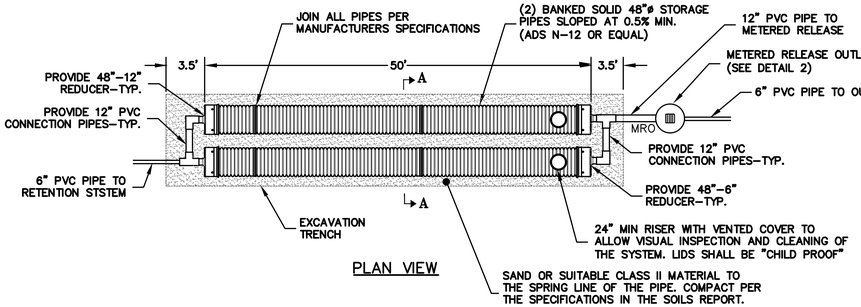
TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

DETAILS

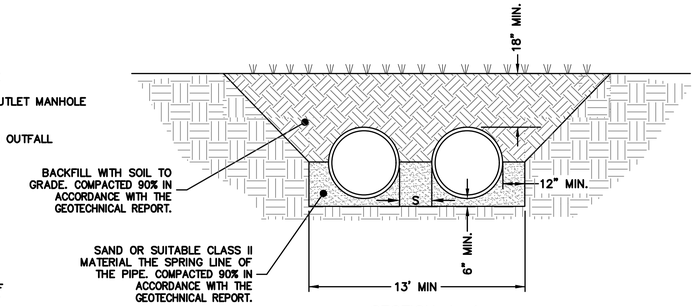
-	-
-	-
-	-
-	-
-	-
REVISIONS	BY

JOB NO:	2232132
DATE:	06-05-24
SCALE:	NTS
DESIGN BY:	TB
CHECKED BY:	JH

SHEET NO:
C-4.0
05 OF 10 SHEETS



PLAN VIEW



SECTION A-A

STORAGE PIPE NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "S"	TYPICAL SIDE WALL "X"
48" (1,200 MM)	54" (1,372 MM)	24" (600 MM)	12" (292 MM)

NOTES:

1. ALL REFERENCES TO CLASS I OR II MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.

2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.

3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.

4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.

6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS II*. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4"-24" (100mm-600mm); 6" (150mm) FOR 30"-60" (750mm-900mm).

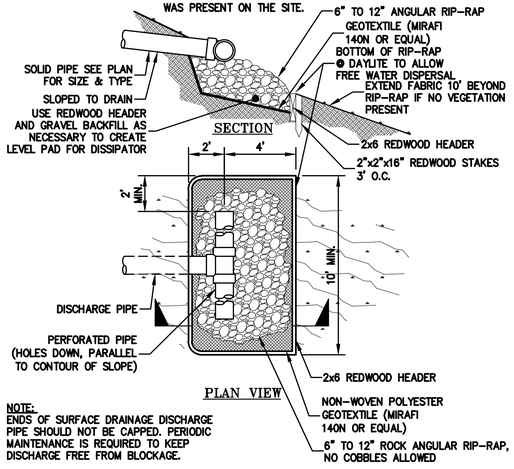
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE APPROVED BY THE SOILS ENGINEER. MATERIAL SHALL BE INSTALLED UNDER THE DIRECTION OF THE SOILS ENGINEER AND COMPACTED PER THE SPECIFICATIONS CONTAINED IN THE SOILS REPORT.

8. MINIMUM COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 18" FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 18" UP TO 36" DIAMETER PIPE AND 24" OF COVER FOR 42" - 60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

* CLASS I BACKFILL REQUIRED AROUND 60" DIAMETER FITTINGS.

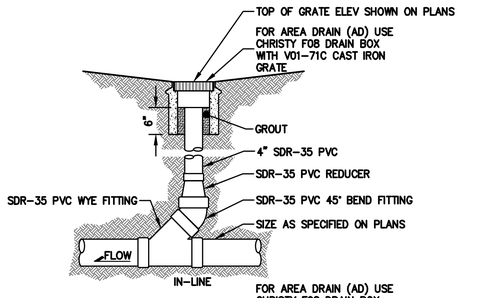
1 / C-4.1 **DETENTION SYSTEM DETAIL**

NTS



2 / C-4.1 **ENERGY DISSIPATOR DISCHARGE**

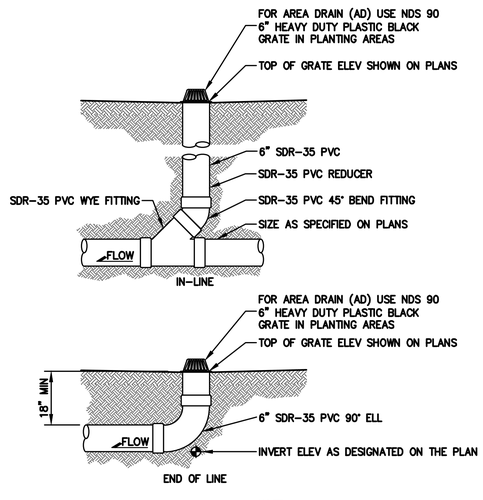
NTS



NOTE:
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

3 / C-4.1 **AREA DRAIN**

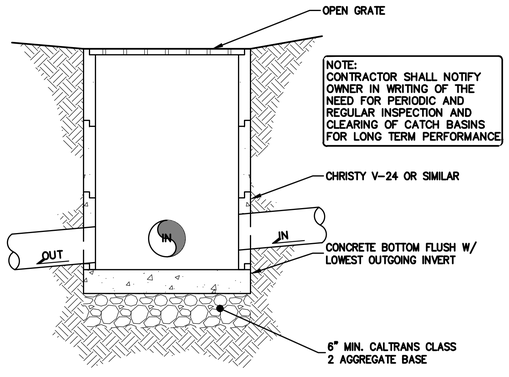
NTS



NOTE:
GLUED FITTINGS MAY BE SUBSTITUTED FOR GASKETED FITTINGS AT THE OPTION OF THE INSTALLATION CONTRACTOR.

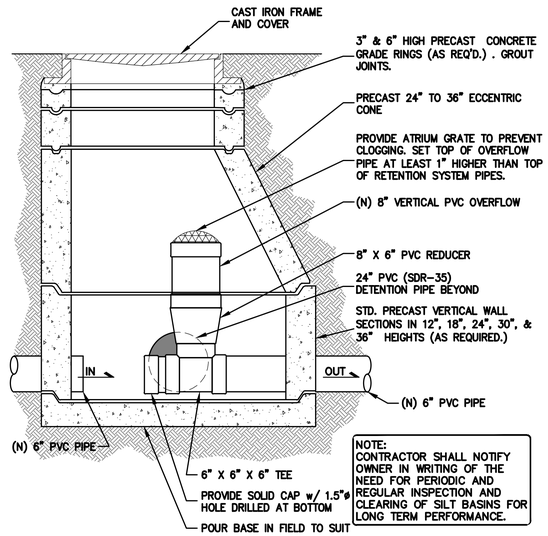
4 / C-4.1 **AREA DRAIN**

NTS



4 / C-4.1 **CATCH BASIN**

NTS



5 / C-4.1 **METERED RELEASE OUTLET**

NTS

REGISTERED PROFESSIONAL ENGINEER PETER CARLSON NO. C79559 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

DETAILS

REVISIONS	BY
-	-
-	-
-	-
-	-
-	-

JOB NO: 2232132
DATE: 06-05-24
SCALE: NTS
DESIGN BY: TB
CHECKED BY: JH
SHEET NO:

C-4.1

06 OF 10 SHEETS

GENERAL NOTES

ALL GENERAL NOTES, SHEET NOTES, AND LEGEND NOTES FOUND IN THESE DOCUMENTS SHALL APPLY TYPICALLY THROUGHOUT. IF INCONSISTENCIES ARE FOUND IN THE VARIOUS NOTATIONS, NOTIFY THE ENGINEER IMMEDIATELY IN WRITING REQUESTING CLARIFICATION.

THESE DRAWINGS AND THEIR CONTENT ARE AND SHALL REMAIN THE PROPERTY OF LEA AND BRAZE ENGINEERING, INC. WHETHER THE PROJECT FOR WHICH THEY ARE PREPARED IS EXECUTED OR NOT. THEY ARE NOT TO BE USED BY ANY PERSONS ON OTHER PROJECTS OR EXTENSIONS OF THE PROJECT EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO THE ENGINEER.

ALL WORK SHALL COMPLY WITH APPLICABLE CODES AND TRADE STANDARDS WHICH GOVERN EACH PHASE OF WORK INCLUDING, BUT NOT LIMITED TO, CALIFORNIA MECHANICAL CODE, CALIFORNIA PLUMBING CODE, CALIFORNIA ELECTRICAL CODE, CALIFORNIA FIRE CODE, CALTRANS STANDARDS AND SPECIFICATIONS, AND ALL APPLICABLE STATE AND/OR LOCAL CODES AND/OR LEGISLATION.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND ALL SUBCONTRACTORS TO CHECK AND VERIFY ALL CONDITIONS, DIMENSIONS, LINES AND LEVELS INDICATED. PROPER FIT AND ATTACHMENT OF ALL PARTS IS REQUIRED. SHOULD THERE BE ANY DISCREPANCIES, IMMEDIATELY NOTIFY THE ENGINEER FOR CORRECTION OR ADJUSTMENT THE EVENT OF FAILURE TO DO SO, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF ANY ERROR.

ALL DIMENSIONS AND CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE JOB BY EACH SUBCONTRACTOR BEFORE HE/SHE BEGINS HIS/HER WORK. ANY ERRORS, OMISSION, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER/CONTRACTOR BEFORE CONSTRUCTION BEGINS.

COMMENCEMENT OF WORK BY THE CONTRACTOR AND/OR ANY SUBCONTRACTOR SHALL INDICATE KNOWLEDGE AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS, OR EXISTING ON SITE, WHICH COULD AFFECT THEIR WORK.

WORK SEQUENCE

IN THE EVENT ANY SPECIAL SEQUENCING OF THE WORK IS REQUIRED BY THE OWNER OR THE CONTRACTOR, THE CONTRACTOR SHALL ARRANGE A CONFERENCE BEFORE ANY SUCH WORK IS BEGUN.

SITE EXAMINATION: THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL THOROUGHLY EXAMINE THE SITE AND FAMILIARIZE HIM/HERSELF WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THE CONTRACTOR SHALL VERIFY AT THE SITE ALL MEASUREMENTS AFFECTING HIS/HER WORK AND SHALL BE RESPONSIBLE FOR THE CORRECTIONS OF THE SAME. NO EXTRA COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR EXPENSES DUE TO HIS/HER NEGLECT TO EXAMINE, OR FAILURE TO DISCOVER, CONDITIONS WHICH AFFECT HIS/HER WORK.

LEA AND BRAZE ENGINEERING, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO A THIRD PARTY WITHOUT FIRST OBTAINING THE WRITTEN PERMISSION AND CONSENT OF LEA AND BRAZE ENGINEERING, INC. IN THE EVENT OF UNAUTHORIZED REUSE OF THESE PLANS BY A THIRD PARTY, THE THIRD PARTY SHALL HOLD HARMLESS LEA AND BRAZE ENGINEERING, INC.

CONSTRUCTION IS ALWAYS LESS THAN PERFECT SINCE PROJECTS REQUIRE THE COORDINATION AND INSTALLATION OF MANY INDIVIDUAL COMPONENTS BY VARIOUS CONSTRUCTION INDUSTRY TRADES. THESE DOCUMENTS CANNOT PORTRAY ALL COMPONENTS OR ASSEMBLIES EXACTLY. IT IS THE INTENTION OF THESE ENGINEERING DOCUMENTS THAT THEY REPRESENT A REASONABLE STANDARD OF CARE IN THEIR CONTENT. IT IS ALSO PRESUMED BY THESE DOCUMENTS THAT CONSTRUCTION REVIEW SERVICES WILL BE PROVIDED BY THE ENGINEER. SHOULD THE OWNER NOT RETAIN THE ENGINEER TO PROVIDE SUCH SERVICES, OR SHOULD HE/SHE RETAIN THE ENGINEER TO PROVIDE ONLY PARTIAL OR LIMITED SERVICES, THEN IT SHALL BE THE OWNER'S AND CONTRACTOR'S RESPONSIBILITY TO FULLY RECOGNIZE AND PROVIDE THAT STANDARD OF CARE.

IF THE OWNER OR CONTRACTOR OBSERVES OR OTHERWISE BECOMES AWARE OF ANY FAULT OR DEFECT IN THE PROJECT OR NONCONFORMANCE WITH THE CONTRACT DOCUMENTS, PROMPT WRITTEN NOTICE THEREOF SHALL BE GIVEN BY THE OWNER AND/OR CONTRACTOR TO THE ENGINEER.

THE ENGINEER SHALL NOT HAVE CONTROL OF OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

SITE PROTECTION

PROTECT ALL LANDSCAPING THAT IS TO REMAIN. ANY DAMAGE OR LOSS RESULTING FROM EXCAVATION, GRADING, OR CONSTRUCTION WORK SHALL BE CORRECTED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL EXISTING SITE UTILITIES AND SHALL COORDINATE THEIR REMOVAL OR MODIFICATIONS (IF ANY) TO AVOID ANY INTERRUPTION OF SERVICE TO ADJACENT AREAS. THE GENERAL CONTRACTOR SHALL INFORM HIM/HERSELF OF MUNICIPAL REGULATIONS AND CARRY OUT HIS/HER WORK IN COMPLIANCE WITH ALL FEDERAL AND STATE REQUIREMENTS TO REDUCE FIRE HAZARDS AND INJURIES TO THE PUBLIC.

STORMWATER POLLUTION PREVENTION NOTES

1) STORE, HANDLE, AND DISPOSE OF CONSTRUCTION MATERIALS AND WASTES PROPERLY, SO AS TO PREVENT THEIR CONTACT WITH STORMWATER.

2) CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING SOLID WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER OR SEDIMENT, AND NON-STORMWATER DISCHARGES TO STORM DRAINS AND WATER COURSES.

3) USE SEDIMENT CONTROL OR FILTRATION TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

4) AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA IN WHICH RUNOFF IS CONTAINED AND TREATED.

5) DELINEATE CLEARING LIMITS, EASEMENTS, SETBACKS, SENSITIVE OR CRITICAL AREAS, BUFFER ZONES, TREES AND DISCHARGE COURSE WITH FIELD MARKERS.

6) PROTECT ADJACENT PROPERTIES AND UNDISTURBED AREAS FROM CONSTRUCTION IMPACTS USING VEGETATIVE BUFFER STRIPS, SEDIMENT BARRIERS OF FILTERS, DIKES, MULCHING, OR OTHER MEASURES AS APPROPRIATE.

7) PERFORM CLEARING AND EARTH MOVING ACTIVITIES DURING DRY WEATHER TO THE MAXIMUM EXTENT PRACTICAL.

8) LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

9) LIMIT CONSTRUCTION ACCESS ROUTES AND STABILIZE DESIGNATED ACCESS POINTS.

10) AVOID TRACKING DIRT OR MATERIALS OFF-SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS TO THE MAXIMUM EXTENT PRACTICAL.

SUPPLEMENTAL MEASURES

A. THE PHRASE "NO DUMPING – DRAINS TO BAY" OR EQUALLY EFFECTIVE PHRASE MUST BE LABELED ON STORM DRAIN INLETS (BY STENCILING, BRANDING, OR PLAQUES) TO ALERT THE PUBLIC TO THE DESTINATION OF STORM WATER AND TO PREVENT DIRECT DISCHARGE OF POLLUTANTS INTO THE STORM DRAIN.

B. USING FILTRATION MATERIALS ON STORM DRAIN COVERS TO REMOVE SEDIMENT FROM DEWATERING EFFLUENT.

C. STABILIZING ALL DENUDED AREAS AND MAINTAINING EROSION CONTROL MEASURES CONTINUOUSLY FROM OCTOBER 15 AND APRIL 15.

D. REMOVING SPOILS PROMPTLY, AND AVOID STOCKPILING OF FILL MATERIALS, WHEN RAIN IS FORECAST. IF RAIN THREATENS, STOCKPILED SOILS AND OTHER MATERIALS SHALL BE COVERED WITH A TARP OR OTHER WATERPROOF MATERIAL.

E. STORING, HANDLING, AND DISPOSING OF CONSTRUCTION MATERIALS AND WASTES SO AS TO AVOID THEIR ENTRY TO THE STORM DRAIN SYSTEMS OR WATER BODY.

F. AVOIDING CLEANING, FUELING, OR MAINTAINING VEHICLES ON-SITE, EXCEPT IN AN AREA DESIGNATED TO CONTAIN AND TREAT RUNOFF.

GRADING & DRAINAGE NOTES:

1. SCOPE OF WORK

THESE SPECIFICATIONS AND APPLICABLE PLANS PERTAIN TO AND INCLUDE ALL SITE GRADING AND EARTHWORK ASSOCIATED WITH THE PROJECT INCLUDING, BUT NOT LIMITED TO THE FURNISHING OF ALL LABOR, TOOLS AND EQUIPMENT NECESSARY FOR SITE CLEARING AND GRUBBING, SITE PREPARATION, DISPOSAL OF EXCESS OR UNSUITABLE MATERIAL, STRIPPING, KEYING, EXCAVATION, OVER EXCAVATION, RECOMPACTION PREPARATION FOR SOIL RECEIVING FILL, PAVEMENT, FOUNDATION OF SLABS, EXCAVATION, IMPORTATION OF ANY REQUIRED FILL MATERIAL, PROCESSING, PLACEMENT AND COMPACTION OF FILL AND SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING TO CONFORM TO THE LINES, GRADING AND SLOPE SHOWN ON THE PROJECT GRADING PLANS.

2. GENERAL

A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT AND THE TOWN OF LOS GATOS' GRADING ORDINANCE.

B. ALL FILL MATERIALS SHALL BE DENSIFIED SO AS TO PRODUCE A DENSITY NOT LESS THAN 90% RELATIVE COMPACTION BASED UPON ASTM TEST DESIGNATION D1557. FIELD DENSITY TEST WILL BE PERFORMED IN ACCORDANCE WITH ASTM TEST DESIGNATION 2922 AND 3017. THE LOCATION AND FREQUENCY OF THE FIELD DENSITY TEST WILL BE AS DETERMINED BY THE SOIL ENGINEER. THE RESULTS OF THESE TESTS AND COMPLIANCE WITH THE SPECIFICATIONS WILL BE THE BASIS UPON WHICH SATISFACTORY COMPLETION OF THE WORK WILL BE JUDGED BY THE SOIL ENGINEER. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED AS SHOWN ON PLANS, BUT NO STEEPER THAN TWO (2) HORIZONTAL TO ONE (1) VERTICAL.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF ALL THE EARTHWORK IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. NO DEVIATION FROM THESE SPECIFICATIONS SHALL BE MADE EXCEPT UPON WRITTEN APPROVAL BY THE SOILS ENGINEER. BOTH CUT AND FILL AREAS SHALL BE SURFACE COMPLETED TO THE SATISFACTION OF THE SOILS ENGINEER AT THE CONCLUSION OF ALL GRADING OPERATIONS AND PRIOR TO FINAL ACCEPTANCE. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO (2) WORKING DAYS PRIOR TO DOING ANY SITE GRADING AND EARTHWORK INCLUDING CLEARING.

3. CLEARING AND GRUBBING

A. THE CONTRACTOR SHALL ACCEPT THE SITE IN ITS PRESENT CONDITION. ALL EXISTING PUBLIC IMPROVEMENTS SHALL BE PROTECTED. ANY IMPROVEMENTS DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE LOCAL JURISDICTION WITH NO EXTRA COMPENSATION.

B. ALL ABANDONED BUILDINGS AND FOUNDATIONS, TREE (EXCEPT THOSE SPECIFIED TO REMAIN FOR LANDSCAPING PURPOSES), FENCES, VEGETATION AND ANY SURFACE DEBRIS SHALL BE REMOVED AND DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

C. ALL ABANDONED SEPTIC TANKS AND ANY OTHER SUBSURFACE STRUCTURES EXISTING IN PROPOSED DEVELOPMENT AREAS SHALL BE REMOVED PRIOR TO ANY GRADING OR FILL OPERATION. ALL APPURTENANT DRAIN FIELDS AND OTHER CONNECTING LINES MUST ALSO BE TOTALLY REMOVED.

D. ALL ABANDONED UNDERGROUND IRRIGATION OR UTILITY LINES SHALL BE REMOVED OR DEMOLISHED. THE APPROPRIATE FINAL DISPOSITION OF SUCH LINES DEPEND UPON THEIR DEPTH AND LOCATION AND THE METHOD OF REMOVAL OR DEMOLITION SHALL BE DETERMINED BY THE SOILS ENGINEER. ONE OF THE FOLLOWING METHODS WILL BE USED:

(1) EXCAVATE AND TOTALLY REMOVE THE UTILITY LINE FROM THE TRENCH.

(2) EXCAVATE AND CRUSH THE UTILITY LINE IN THE TRENCH.

(3) CAP THE ENDS OF THE UTILITY LINE WITH CONCRETE TO PREVENT THE ENTRANCE OF WATER. THE LOCATIONS AT WHICH THE UTILITY LINE WILL BE CAPPED WILL BE DETERMINED BY THE UTILITY DISTRICT ENGINEER. THE LENGTH OF THE CAP SHALL NOT BE LESS THAN FIVE FEET, AND THE CONCRETED MIX EMPLOYED SHALL HAVE MINIMUM SHRINKAGE.

4. SITE PREPARATION AND STRIPPING

A. ALL SURFACE ORGANICS SHALL BE STRIPPED AND REMOVED FROM BUILDING PADS, AREAS TO RECEIVE COMPACTED FILL AND PAVEMENT AREAS.

B. UPON THE COMPLETION OF THE ORGANIC STRIPPING OPERATION, THE GROUND SURFACE (NATIVE SOIL SUBGRADE) OVER THE ENTIRE AREA OF ALL BUILDING PADS, STREET AND PAVEMENT AREAS AND ALL AREAS TO RECEIVE COMPACTED FILL SHALL BE PLOWED OR SCARIFIED UNTIL THE SURFACE IS FREE OF RUTS, HUMMOCKS OR OTHER UNEVEN FEATURES WHICH MAY INHIBIT UNIFORM SOIL COMPACTION. THE GROUND SURFACE SHALL THEN BE DISCED OR BLADED TO A DEPTH OF AT LEAST 6 INCHES. UPON ENGINEER'S SATISFACTION, THE NEW SURFACE SHALL BE WATER CONDITIONED AND RECOMPACTED PER REQUIREMENTS FOR COMPACTING FILL MATERIAL.

5. EXCAVATION

A. UPON COMPLETION OF THE CLEARING AND GRUBBING, SITE PREPARATION AND STRIPPING, THE CONTRACTOR SHALL MAKE EXCAVATIONS TO LINES AND GRADES NOTED ON THE PLAN. WHERE REQUIRED BY THE SOILS ENGINEER, UNACCEPTABLE NATIVE SOILS OR UNENGINEERED FILL SHALL BE OVER EXCAVATED BELOW THE DESIGN GRADE. SEE PROJECT SOILS REPORT FOR DISCUSSION OF OVER EXCAVATION OF THE UNACCEPTABLE MATERIAL. RESULTING GROUND LINE SHALL BE SCARIFIED, MOISTURE-CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE.

B. EXCAVATED MATERIALS SUITABLE FOR COMPACTED FILL MATERIAL SHALL BE UTILIZED IN MAKING THE REQUIRED COMPACTED FILLS. THOSE NATIVE MATERIALS CONSIDERED UNSUITABLE BY THE SOILS ENGINEER SHALL BE DISPOSED OF OFF THE SITE BY THE CONTRACTOR.

6. PLACING, SPREADING AND COMPACTING FILL MATERIAL

A. FILL MATERIALS

THE MATERIALS PROPOSED FOR USE AS COMPACTED FILL SHALL BE APPROVED BY THE SOILS ENGINEER BEFORE COMMENCEMENT OF GRADING OPERATIONS. THE NATIVE MATERIAL IS CONSIDERED SUITABLE FOR FILL; HOWEVER, ANY NATIVE MATERIAL DESIGNATED UNSUITABLE BY THE SOILS ENGINEER SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ANY IMPORTED MATERIAL SHALL BE APPROVED FOR USE BY THE SOILS ENGINEER, IN WRITING, BEFORE BEING IMPORTED TO THE SITE AND SHALL POSSESS SUFFICIENT FINES TO PROVIDE A COMPETENT SOIL MATRIX AND SHALL BE FREE OF VEGETATIVE AND ORGANIC MATTER AND OTHER DELETERIOUS MATERIALS. ALL FILL VOIDS SHALL BE FILLED AND PROPERLY COMPACTED. NO ROCKS LARGER THAN THREE INCHES IN DIAMETER SHALL BE PERMITTED.

B. FILL CONSTRUCTION

THE SOILS ENGINEER SHALL APPROVE THE NATIVE SOIL SUBGRADE BEFORE PLACEMENT OF ANY COMPACTED FILL MATERIAL. UNACCEPTABLE NATIVE SOIL SHALL BE REMOVED AS DIRECTED BY THE SOILS ENGINEER. THE RESULTING GROUND LINE SHALL BE SCARIFIED MOISTURE CONDITIONED AND RECOMPACTED AS SPECIFIED IN SECTION 4 OF THESE SPECIFICATIONS. COMPACTED FILL MATERIAL SHALL BE PLACED TO BRING GROUND LEVEL BACK TO DESIGN GRADE. GROUND PREPARATION SHALL BE FOLLOWED CLOSELY BY FILL PLACEMENT TO PREVENT DRYING OUT OF THE SUBSOIL BEFORE PLACEMENT OF THE FILL.

THE APPROVED FILL MATERIALS SHALL BE PLACED IN UNIFORM HORIZONTAL LAYERS NO THICKER THAN 8" IN LOOSE THICKNESS. LAYERS SHALL BE SPREAD EVENLY AND SHALL BE THOROUGHLY BLADE MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. THE SCARIFIED SUBGRADE AND FILL MATERIAL SHALL BE MOISTURE CONDITIONED TO AT LEAST OPTIMUM MOISTURE. WHEN THE MOISTURE CONTENT OF THE FILL IS BELOW THAT SPECIFIED, WATER SHALL BE ADDED UNTIL THE MOISTURE DURING THE COMPACTION PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL IS ABOVE THAT SPECIFIED, THE FILL MATERIAL SHALL BE AERATED BY BLADING OR OTHER SATISFACTORY METHODS UNTIL THE MOISTURE CONTENT IS AS SPECIFIED.

AFTER EACH LAYER HAS BEEN PLACED, MIXED, SPREAD EVENLY AND MOISTURE CONDITIONED, IT SHALL BE COMPACTED TO AT LEAST THE SPECIFIED DENSITY.

THE FILL OPERATION SHALL BE CONTINUED IN COMPACTED LAYERS AS SPECIFIED ABOVE UNTIL THE FILL HAS BEEN BROUGHT TO THE FINISHED SLOPES AND GRADES AS SHOWN ON THE PLANS. NO LAYER SHALL BE ALLOWED TO DRY OUT BEFORE SUBSEQUENT LAYERS ARE PLACED.

COMPACTION EQUIPMENT SHALL BE OF SUCH DESIGN THAT IT WILL BE ABLE TO COMPACT THE FILL TO THE SPECIFIED MINIMUM COMPACTION WITHIN THE SPECIFIED MOISTURE CONTENT RANGE. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER ITS ENTIRE AREA UNTIL THE REQUIRED MINIMUM DENSITY HAS BEEN OBTAINED.

7. CUT OR FILL SLOPES

ALL CONSTRUCTED SLOPES, BOTH CUT AND FILL, SHALL BE NO STEEPER THAN 2 TO 1 (HORIZONTAL TO VERTICAL). DURING THE GRADING OPERATION, COMPACTED FILL SLOPES SHALL BE OVERFILLED BY AT LEAST ONE FOOT HORIZONTALLY AT THE COMPLETION OF THE GRADING OPERATIONS, THE EXCESS FILL EXISTING ON THE SLOPES SHALL BE BLADED OFF TO CREATE THE FINISHED SLOPE EMBANKMENT. ALL CUT AND FILL SLOPES SHALL BE TRACK WALKED AFTER BEING BROUGHT TO FINISH GRADE AND THEN BE PLANTED WITH EROSION CONTROL SLOPE PLANTING. THE SOILS ENGINEER SHALL REVIEW ALL CUT SLOPES TO DETERMINE IF ANY ADVERSE GEOLOGIC CONDITIONS ARE EXPOSED. IF SUCH CONDITIONS DO OCCUR, THE SOILS ENGINEER SHALL RECOMMEND THE APPROPRIATE MITIGATION MEASURES AT THE TIME OF THEIR DETECTION.

8. SEASONAL LIMITS AND DRAINAGE CONTROL

FILL MATERIALS SHALL NOT BE PLACED, SPREAD OR COMPACTED WHILE IT IS AT AN UNSUITABLY HIGH MOISTURE CONTENT OR DURING OTHERWISE UNFAVORABLE CONDITIONS. WHEN THE WORK IS INTERRUPTED FOR ANY REASON THE FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TEST PERFORMED BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONDITIONS IN AREAS TO BE FILLED ARE AS PREVIOUSLY SPECIFIED. ALL EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. ALL EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY.

9. DUST CONTROL

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY FOR THE ALLEVIATION OR PREVENTION OF ANY DUST NUISANCE ON OR ABOUT THE SITE CAUSED BY THE CONTRACTOR'S OPERATION EITHER DURING THE PERFORMANCE OF THE GRADING OR RESULTING FROM THE CONDITION IN WHICH THE CONTRACTOR LEAVES THE SITE. THE CONTRACTOR SHALL ASSUME ALL LIABILITY INCLUDING COURT COST OF CO-DEFENDIANTS FOR ALL CLAIMS RELATED TO DUST OR WIND-BLOWN MATERIALS ATTRIBUTABLE TO HIS WORK. COST FOR THIS ITEM OF WORK IS TO BE INCLUDED IN THE EXCAVATION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. INDEMNITY

THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ENGINEER, THE OWNER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS, FROM ANY AND ALL LIABILITY CLAIMS, LOSSES OR DAMAGE ARISING OR ALLEGED TO HEREIN, BUT NOT INCLUDING THE SOLE NEGLIGENCE OF THE OWNER, THE ARCHITECT, THE ENGINEER AND HIS CONSULTANTS AND EACH OF THEIR OFFICERS AND EMPLOYEES AND AGENTS.

11. SAFETY

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE. INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

THE DUTY OF THE ENGINEERS TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.

12. GUARANTEE

NEITHER THE FINAL PAYMENT, NOR THE PROVISIONS IN THE CONTRACT, NOR PARTIAL, NOR ENTIRE USE OR OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF THE WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT OR RELIEVES THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL OR WORKMANSHIP.

THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THERE FROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE (1) CALENDAR YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

13. TRENCH BACKFILL

EITHER THE ON-SITE INORGANIC SOIL OR APPROVED IMPORTED SOIL MAY BE USED AS TRENCH BACKFILL. THE BACKFILL MATERIAL SHALL BE MOISTURE CONDITIONED PER THESE SPECIFICATIONS AND SHALL BE PLACED IN LIFTS OF NOT MORE THAN SIX INCHES IN HORIZONTAL UNCOMPACTED LAYERS AND BE COMPACTED BY MECHANICAL MEANS TO A MINIMUM OF 90% RELATIVE COMPACTION. IMPORTED SAND MAY BE USED FOR TRENCH BACKFILL MATERIAL PROVIDED IT IS COMPACTED TO AT LEAST 90% RELATIVE COMPACTION. WATER JETTING ASSOCIATED WITH COMPACTION USING VIBRATORY EQUIPMENT WILL BE PERMITTED ONLY WITH IMPORTED SAND BACKFILL WITH THE APPROVAL OF THE SOILS ENGINEER. ALL PIPES SHALL BE BEDDED WITH SAND EXTENDING FROM THE TRENCH BOTTOM TO TWELVE INCHES ABOVE THE PIPE. SAND BEDDING IS TO BE COMPACTED AS SPECIFIED ABOVE FOR SAND BACKFILL.

14. EROSION CONTROL

A. ALL GRADING, EROSION AND SEDIMENT CONTROL AND RELATED WORK UNDERTAKEN ON THIS SITE IS SUBJECT TO ALL TERMS AND CONDITIONS OF THE TOWN GRADING ORDINANCE AND MADE A PART HEREOF BY REFERENCE.

B. THE CONTRACTOR WILL BE LIABLE FOR ANY AND ALL DAMAGES TO ANY PUBLICLY OWNED AND MAINTAINED ROAD CAUSED BY THE AFORESAID CONTRACTOR'S GRADING ACTIVITIES, AND SHALL BE RESPONSIBLE FOR THE CLEANUP OF ANY MATERIAL SPILLED ON ANY PUBLIC ROAD ON THE HAUL ROUTE.

C. THE EROSION CONTROL MEASURES ARE TO BE OPERABLE DURING THE RAINY SEASON, GENERALLY FROM OCTOBER FIRST TO APRIL FIFTEENTH. EROSION CONTROL PLANTING IS TO BE COMPLETED BY OCTOBER FIRST. NO GRADING OR UTILITY TRENCHING SHALL OCCUR BETWEEN OCTOBER FIRST AND APRIL FIFTEENTH UNLESS AUTHORIZED BY THE LOCAL JURISDICTION.

D. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED AND CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE SOILS ENGINEER.

E. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.

F. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON.

G. WHEN NO LONGER NECESSARY AND PRIOR TO FINAL ACCEPTANCE OF DEVELOPMENT, SEDIMENT BASINS SHALL BE REMOVED OR OTHERWISE DEACTIVATED AS REQUIRED BY THE LOCAL JURISDICTION.

H. A CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ANY POINT OF EGRESS FROM THE SITE TO ROADWAY. A CONSTRUCTION ENTRANCE SHOULD BE COMPOSED OF COARSE DRAIN ROCK (2" TO 3") MINIMUM DIAMETER) AT LEAST EIGHT INCHES THICK BY FIFTY (50) FEET LONG BY TWENTY (20) FEET WIDE UNLESS SHOWN OTHERWISE ON PLAN AND SHALL BE MAINTAINED UNTIL THE SITE IS PAVED.

I. ALL AREAS SPECIFIED FOR HYDROSEEDING SHALL BE NOZZLE PLANTED WITH STABILIZATION MATERIAL CONSISTING OF FIBER, SEED, FERTILIZER AND WATER, MIXED AND APPLIED IN THE FOLLOWING PROPORTIONS:

FIBER, 2000 LBS/ACRE
SEED, 200 LBS/ACRE (SEE NOTE J, BELOW)
FERTILIZER (11-8-4), 500 LBS/ACRE
WATER, AS REQUIRED FOR APPLICATION

J. SEED MIX SHALL BE PER CALTRANS STANDARDS.

K. WATER UTILIZED IN THE STABILIZATION MATERIAL SHALL BE OF SUCH QUALITY THAT IT WILL PROMOTE GERMINATION AND STIMULATE GROWTH OF PLANTS. IT SHALL BE FREE OF POLLUTANT MATERIALS AND WEED SEED.

L. HYDROSEEDING SHALL CONFORM TO THE PROVISIONS OF SECTION 20, EROSION CONTROL AND HIGHWAY PLANTING", OF THE STANDARD SPECIFICATIONS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED.

M. A DISPERSING AGENT MAY BE ADDED TO THE HYDROSEEDING MATERIAL, PROVIDED THAT THE CONTRACTOR FURNISHES SUITABLE EVIDENCE THAT THE ADDITIVE WILL NOT ADVERSELY AFFECT THE PERFORMANCE OF THE SEEDING MIXTURE.

N. STABILIZATION MATERIALS SHALL BE APPLIED AS SOON AS PRACTICABLE AFTER COMPLETION OF GRADING OPERATIONS AND PRIOR TO THE ONSET OF WINTER RAINS, OR AT SUCH OTHER TIME AS DIRECTED BY THE TOWN ENGINEER. THE MATERIAL SHALL BE APPLIED BEFORE INSTALLATION OF OTHER LANDSCAPING MATERIALS SUCH AS TREES, SHRUBS AND GROUND COVERS.

O. THE STABILIZATION MATERIAL SHALL BE APPLIED WITHIN 4-HOURS AFTER MIXING. MIXED MATERIAL NOT USED WITHIN 4-HOURS SHALL BE REMOVED FROM THE SITE.

P. THE CONTRACTOR SHALL MAINTAIN THE SOIL STABILIZATION MATERIAL AFTER PLACEMENT. THE TOWN ENGINEER MAY REQUIRE SPRAY APPLICATION OF WATER OR OTHER MAINTENANCE ACTIVITIES TO ASSURE THE EFFECTIVENESS OF THE STABILIZATION PROCESS. APPLICATION OF WATER SHALL BE ACCOMPLISHED USING NOZZLES THAT PRODUCE A SPRAY THAT DOES NOT CONCENTRATE OR WASH AWAY THE STABILIZATION MATERIALS.

15. CLEANUP

THE CONTRACTOR MUST MAINTAIN THE SITE CLEAN, SAFE AND IN USABLE CONDITION. ANY SPILLS OF SOIL, ROCK OR CONSTRUCTION MATERIAL MUST BE REMOVED FROM THE SITE BY THE CONTRACTOR DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. COST FOR THIS ITEM OF WORK SHALL BE INCLUDED IN THE EXCAVATION AND COMPACTION ITEM AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

NOTE:
THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.

REGISTERED PROFESSIONAL ENGINEER
PETER CARLSON
No. C79559
CIVIL
STATE OF CALIFORNIA
ORIGINAL SIGNATURES IN BLUE INK

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

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

GRADING SPECIFICATIONS

REVISIONS	BY
–	–
–	–
–	–
–	–
–	–

JOB NO:	2232132
DATE:	06-

PURPOSE:

THE PURPOSE OF THIS PLAN IS TO STABILIZE THE SITE TO PREVENT EROSION OF GRADED AREAS AND TO PREVENT SEDIMENTATION FROM LEAVING THE CONSTRUCTION AREA AND AFFECTING NEIGHBORING SITES, NATURAL AREAS, PUBLIC FACILITIES OR ANY OTHER AREA THAT MIGHT BE AFFECTED BY SEDIMENTATION. ALL MEASURES SHOWN ON THIS PLAN SHOULD BE CONSIDERED THE MINIMUM REQUIREMENTS NECESSARY. SHOULD FIELD CONDITIONS DICTATE ADDITIONAL MEASURES, SUCH MEASURES SHALL BE PER CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL AND THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION. LEA & BRAZE ENGINEERING SHOULD BE NOTIFIED IMMEDIATELY SHOULD CONDITIONS CHANGE.

EROSION CONTROL NOTES:

1. IT SHALL BE THE OWNER'S/CONTRACTOR'S RESPONSIBILITY TO MAINTAIN CONTROL OF THE ENTIRE CONSTRUCTION OPERATION AND TO KEEP THE ENTIRE SITE IN COMPLIANCE WITH THIS EROSION CONTROL PLAN.
2. THE INTENTION OF THIS PLAN IS FOR INTERIM EROSION AND SEDIMENT CONTROL ONLY. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL, THE CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION, AND THE LOCAL GOVERNING AGENCY FOR THIS PROJECT.
3. OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO, DURING, AND AFTER STORM EVENTS. PERSON IN CHARGE OF MAINTAINING EROSION CONTROL MEASURES SHOULD WATCH LOCAL WEATHER REPORTS AND ACT APPROPRIATELY TO MAKE SURE ALL NECESSARY MEASURES ARE IN PLACE.
4. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT–LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM, INCLUDING EXISTING DRAINAGE SWALES AND WATERCOURSES.
6. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION WILL BE MINIMIZED. COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS CONCERNING POLLUTION SHALL BE MAINTAINED AT ALL TIMES.
7. CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED BY THE APPROPRIATE FEDERAL, STATE AND LOCAL AGENCY REQUIREMENTS.
8. ALL MATERIALS NECESSARY FOR THE APPROVED EROSION CONTROL MEASURES SHALL BE IN PLACE BY OCTOBER 15TH.
9. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON, OR FROM OCTOBER 15TH THROUGH APRIL 15TH, WHICHEVER IS LONGER.
10. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVAL EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
12. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY LOCAL JURISDICTION'S ENGINEERING DEPARTMENT OR BUILDING OFFICIALS.
13. MEASURES SHALL BE TAKEN TO COLLECT OR CLEAN ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY STREET, ALLEY OR PUBLIC PLACE OR IN ANY PUBLIC STORM DRAIN SYSTEMS. THE REMOVAL OF AFORESAID SHALL BE DONE BY STREET SWEEPING OR HAND SWEEPING. WATER SHALL NOT BE USED TO WASH SEDIMENTS INTO PUBLIC OR PRIVATE DRAINAGE FACILITIES.
14. EROSION CONTROL MEASURES SHALL BE ON–SITE FROM OCTOBER 15 THROUGH APRIL 15.
15. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON OR FROM OCTOBER 15 THROUGH APRIL 15, WHICHEVER IS GREATER.
16. PLANS SHALL BE DESIGNED TO MEET C3 REQUIREMENTS OF THE MUNICIPAL STORMWATER REGIONAL PERMIT ("MRP") NPDES PERMIT CAS 612008.
17. THE CONTRACTOR TO NPDES (NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM) BEST MANAGEMENT PRACTICES (BMP) FOR SEDIMENTATION PREVENTION AND EROSION CONTROL TO PREVENT DELETERIOUS MATERIALS OR POLLUTANTS FROM ENTERING THE TOWN OR COUNTY STORM DRAIN SYSTEMS.
18. THE CONTRACTOR MUST INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO THE INCEPTION OF ANY WORK ONSITE AND MAINTAIN THE MEASURES UNTIL THE COMPLETION OF ALL LANDSCAPING.
19. THE CONTRACTOR SHALL MAINTAIN ADJACENT STREETS IN A NEAT, CLEAN DUST FREE AND SANITARY CONDITION AT ALL TIMES AND TO THE SATISFACTION OF THE TOWN INSPECTOR. THE ADJACENT STREET SHALL AT ALL TIMES BE KEPT CLEAN OF DEBRIS, WITH DUST AND OTHER NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR BE RESPONSIBLE FOR ANY CLEAN UP ON ADJACENT STREETS AFFECTED BY THE BY THEIR CONSTRUCTION, METHOD OF STREET CLEANING SHALL BE BY DRY SWEEPING OF ALL PAVED AREAS. NO STOCKPILING OF BUILDING MATERIALS WITHIN THE TOWN RIGHT–OF–WAY.
20. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONTRACTOR SHALL INSTALL A STABILIZED CONSTRUCTION ENTRANCE PRIOR TO THE INSPECTION OF ANY WORK ONSITE AND MAINTAIN IT FOR THE DURATION OF THE CONSTRUCTION PROCESS SO AS TO NOT INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT–OF–WAY UNTIL THE COMPLETION OF ALL LANDSCAPING.
21. THE CONTRACTOR SHALL PROTECT DOWN SLOPE DRAINAGE COURSES, STREAMS AND STORM DRAINS WITH ROCK FILLED SAND BAGS, TEMPORARY SWALES, SILT FENCES, AND EARTH PERMS IN CONJUNCTION OF ALL LANDSCAPING.
22. STOCKPILED MATERIALS SHALL BE COVERED WITH VISQUEEN OR A TARPAULIN UNTIL THE MATERIAL IS REMOVED FROM THE SITE. ANY REMAINING BARE SOIL THAT EXISTS AFTER THE STOCKPILE HAS BEEN REMOVED SHALL BE COVERED UNTIL A NATURAL GROUND COVER IS ESTABLISHED OR IT IS SEEDED OR PLANTED TO PROVIDE GROUND COVER PRIOR TO THE FALL RAINY SEASON.
23. EXCESS OR WASTE CONCRETE MUST NOT BE WASHED INTO THE PUBLIC RIGHT–OF–WAYOR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
24. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION AND DISPERSAL BY WIND

EROSION CONTROL NOTES CONTINUED:

25. FUELS, OILS, SOLVENTS AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MUST NOT BE WASHED INTO THE DRAINAGE SYSTEM,
26. DUST CONTROL SHALL BE DONE BY WATERING AND AS OFTEN AS REQUIRED BY THE TOWN INSPECTOR.
27. SILT FENCE(S) AND/OR FIBER ROLL(S) SHALL BE INSTALLED PRIOR TO SEPTEMBER 15TH AND SHALL REMAIN IN PLACE UNTIL THE LANDSCAPING GROUND COVER IS INSTALLED. CONTRACTOR SHALL CONTINUOUSLY MONITOR THESE MEASURES, FOLLOWING AND DURING ALL RAIN EVENTS,TO PUBLIC OWNED FACILITIES.

EROSION CONTROL MEASURES:

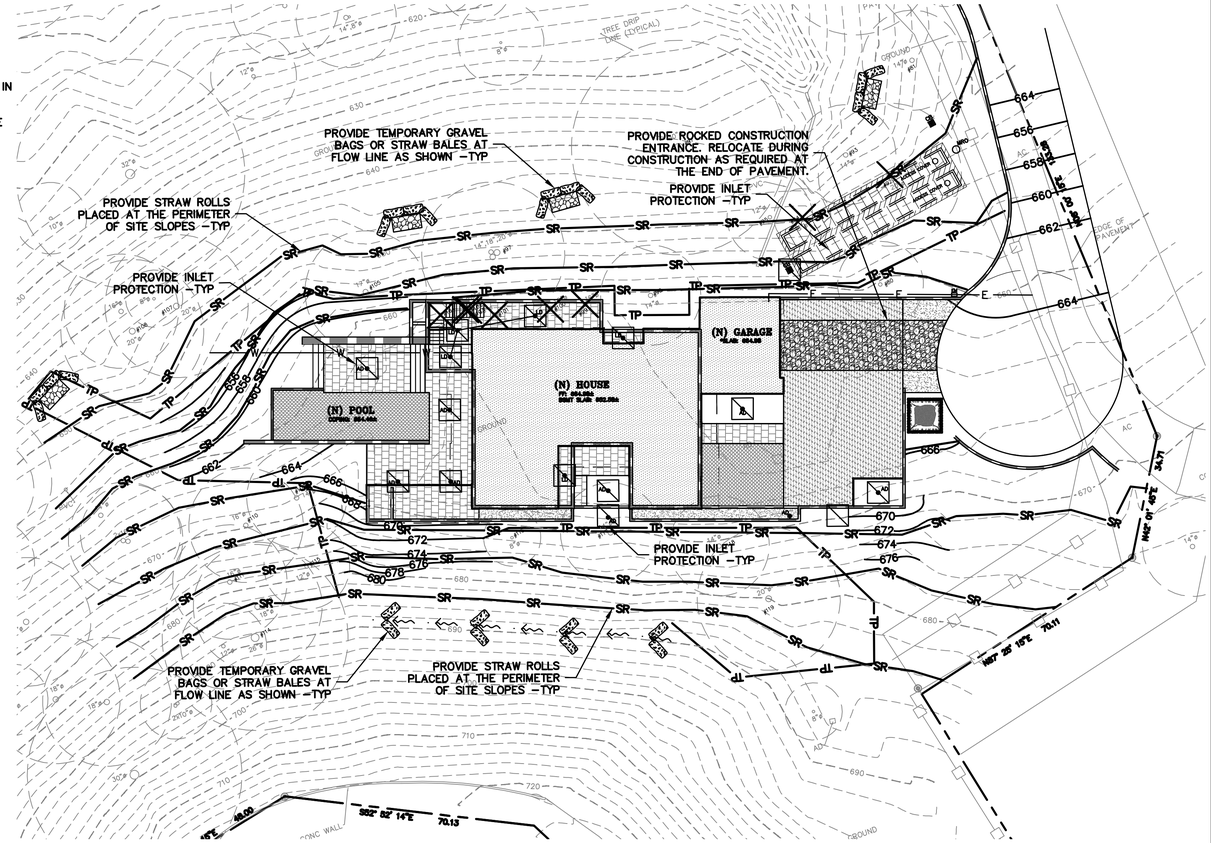
1. THE FACILITIES SHOWN ON THIS PLAN ARE DESIGNED TO CONTROL EROSION AND SEDIMENT DURING THE RAINY SEASON, OCTOBER 15TH TO APRIL 15. EROSION CONTROL FACILITIES SHALL BE IN PLACE PRIOR TO OCTOBER 15TH OF ANY YEAR. GRADING OPERATIONS DURING THE RAINY SEASON WHICH LEAVE DENUDED SLOPES SHALL BE PROTECTED WITH EROSION CONTROL MEASURES IMMEDIATELY FOLLOWNG GRADING ON THE SLOPES.
2. SITE CONDITIONS AT TIME OF PLACEMENT OF EROSION CONTROL MEASURES WILL VARY. APPROPRIATE ACTION INCLUDING TEMPORARY SWALES, INLETS, HYDROSEEDING, STRAW BALES, ROCK SACKS, ETC. SHALL BE TAKEN TO PREVENT EROSION AND SEDIMENTATION FROM LEAVING SITE. EROSION CONTROL MEASURES SHALL BE ADJUSTED AS THE CONDITIONS CHANGE AND THE NEED OF CONSTRUCTION SHIFT.
3. CONSTRUCTION ENTRANCES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF GRADING. ALL CONSTRUCTION TRAFFIC ENTERING ONTO THE PAVED ROADS MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCES. CONTRACTOR SHALL MAINTAIN STABILIZED ENTRANCE AT EACH VEHICLE ACCESS POINT TO EXISTING PAVED STREETS. ANY MUD OR DEBRIS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED DAILY AND AS REQUIRED BY THE GOVERNING AGENCY.
4. ALL EXPOSED SLOPES THAT ARE NOT VEGETATED SHALL BE HYDROSEEDED. IF HYDROSEEDING IS NOT USED OR IS NOT EFFECTIVE BY OCTOBER 15, THEN OTHER IMMEDIATE METHODS SHALL BE IMPLEMENTED, SUCH AS EROSION CONTROL BLANKETS, OR A THREE–STEP APPLICATION OF 1) SEED, MULCH, FERTILIZER 2) BLOWN STRAW 3) TACKIFIER AND MULCH. HYDROSEEDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF SECTION 20" EROSION CONTROL AND HIGHWAY PLANTING" OF THE STANDARD SPECIFICATION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, AS LAST REVISED. REFER TO THE EROSION CONTROL SECTION OF THE GRADING SPECIFICATIONS THAT ARE A PART OF THIS PLAN SET FOR FURTHER INFORMATION.
5. INLET PROTECTION SHALL BE INSTALLED AT OPEN INLETS TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM. INLETS NOT USED IN CONJUNCTION WITH EROSION CONTROL ARE TO BE BLOCKED TO PREVENT ENTRY OF SEDIMENT. MINIMUM INLET PROTECTION SHALL CONSIST OF A ROCK SACKS OR AS SHOWN ON THIS PLAN
6. THIS EROSION AND SEDIMENT CONTROL PLAN MAY NOT COVER ALL THE SITUATIONS THAT MAY ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS AND ADDITIONS MAY BE MADE TO THIS PLAN IN THE FIELD. A REPRESENTATIVE OF LEA & BRAZE ENGINEERING SHALL PERFORM A FIELD REVIEW AND MAKE RECOMMENDATIONS AS NEEDED. CONTRACTOR IS RESPONSIBLE TO NOTIFY LEA & BRAZE ENGINEERING AND THE GOVERNING AGENCY OF ANY CHANGES.
7. THE EROSION CONTROL MEASURES SHALL CONFORM TO THE LOCAL JURISDICTION'S STANDARDS AND THE APPROVAL OF THE LOCAL JURISDICTION'S ENGINEERING DEPARTMENT.
8. STRAW ROLLS SHALL BE PLACED AT THE TOE OF SLOPES AND ALONG THE DOWN SLOPE PERIMETER OF THE PROJECT. THEY SHALL BE PLACED AT 25 FOOT INTERVALS ON GRADED SLOPES. PLACEMENT SHALL RUN WITH THE CONTOURS AND ROLLS SHALL BE TIGHTLY END BUTTED. CONTRACTOR SHALL REFER TO MANUFACTURES SPECIFICATIONS FOR PLACEMENT AND INSTALLATION INSTRUCTIONS.

REFERENCES:

1. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD'S FIELD MANUAL FOR EROSION AND SEDIMENTATION CONTROL
2. CALIFORNIA STORM WATER QUALITY ASSOCIATION BEST MANAGEMENT PRACTICES HANDBOOK FOR CONSTRUCTION

PERIODIC MAINTENANCE:

1. MAINTENANCE IS TO BE PERFORMED AS FOLLOWS:
   - A. DAMAGES CAUSED BY SOIL EROSION OR CONSTRUCTION SHALL BE REPAIRED AT THE END OF EACH WORKING DAY.
   - B. SWALES SHALL BE INSPECTED PERIODICALLY AND MAINTAINED AS NEEDED.
   - C. SEDIMENT TRAPS, BERMS, AND SWALES ARE TO BE INSPECTED AFTER EACH STORM AND REPAIRS MADE AS NEEDED.
   - D. SEDIMENT SHALL BE REMOVED AND SEDIMENT TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 1' FOOT.
   - E. SEDIMENT REMOVED FROM TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
   - F. RILLS AND GULLIES MUST BE REPAIRED.
2. GRAVEL BAG INLET PROTECTION SHALL BE CLEANED OUT WHENEVER SEDIMENT DEPTH IS ONE HALF THE HEIGHT OF ONE GRAVEL BAG.
3. STRAW ROLLS SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHED HALF THE HEIGHT OF THE ROLL.
4. SILT FENCE SHALL BE PERIODICALLY CHECKED TO ASSURE PROPER FUNCTION AND CLEANED OUT WHENEVER THE SEDIMENT DEPTH REACHES ONE FOOT IN HEIGHT.
5. CONSTRUCTION ENTRANCE SHALL BE REGRAVELED AS NECESSARY FOLLOWING SILT/SOIL BUILDUP.
6. ANY OTHER EROSION CONTROL MEASURES SHOULD BE CHECKED AT REGULAR INTERVALS TO ASSURE PROPER FUNCTION



EROSION CONTROL LEGEND

- GRAVEL BAG
- SEDIMENTATION BASIN
- INLET PROTECTION
- STRAW ROLL (SR)
- SILT FENCE (X)
- CONCRETE WASHOUT
- CONSTRUCTION ENTRANCE
- TREE PROTECTION
- EROSION CONTROL BLANKET / MATTING

NOTE:
SEAL ALL OTHER INLETS NOT INTENDED TO ACCEPT STORM WATER AND DIRECT FLOWS TEMPORARILY TO FUNCTIONAL SEDIMENTATION BASIN INLETS. –TYP

0 10 20 40

SCALE: 1" = 20'

LICENSED PROFESSIONAL ENGINEER PETER CARLSON No. C79559 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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

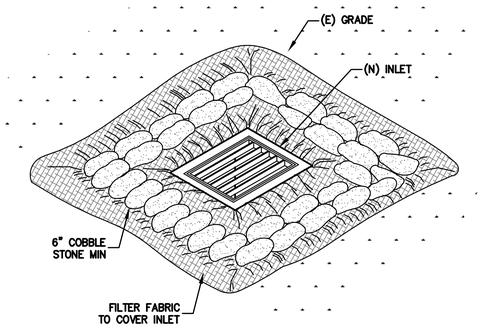
TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
APN: 537–24–030
SANTA CLARA COUNTY

EROSION CONTROL PLAN

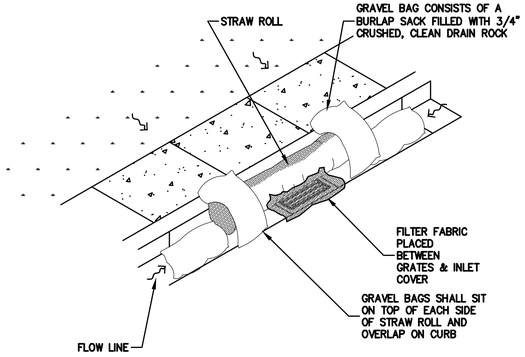
REVISIONS	BY
–	–
–	–
–	–
–	–
–	–

JOB NO:	2232132
DATE:	06–05–24
SCALE:	1" = 20'
DESIGN BY:	TB
CHECKED BY:	JH
SHEET NO:	ER–1

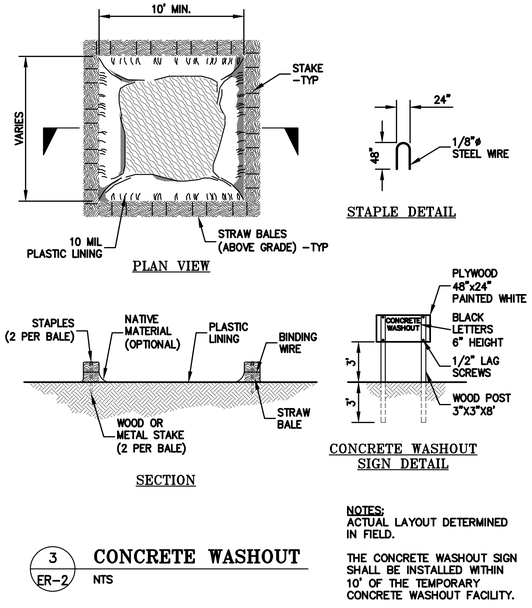
08 OF 10 SHEETS



1 ER-2 **INLET PROTECTION**
NTS



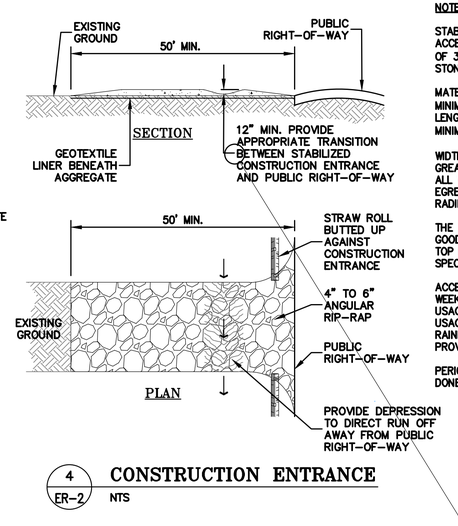
2 ER-2 **STREET INLET PROTECTION**
NTS



NOTES:
ACTUAL LAYOUT DETERMINED IN FIELD.

THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

3 ER-2 **CONCRETE WASHOUT**
NTS



NOTES:

STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF 3" TO 4" WASHED, FRACTURED STONE AGGREGATE.

MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12". LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50'.

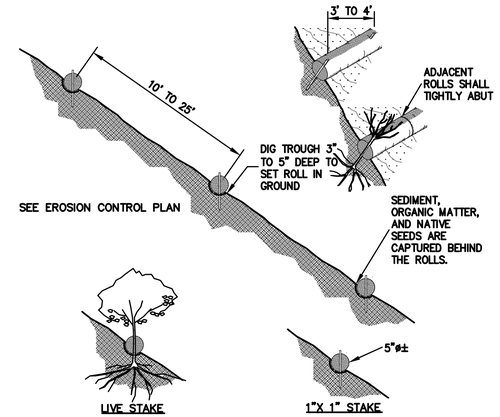
WIDTH SHALL BE A MIN. OF 15' OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.

THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN ABOVE NOTE.

ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY.

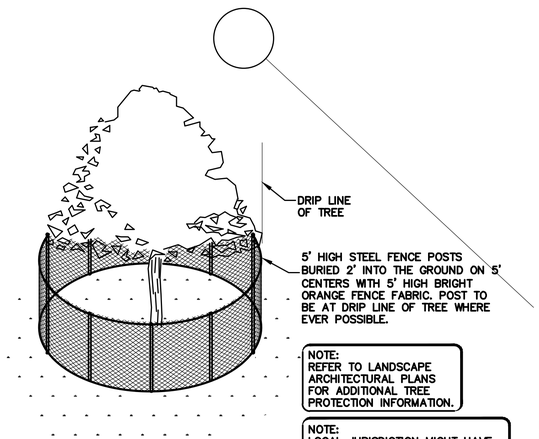
PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

4 ER-2 **CONSTRUCTION ENTRANCE**
NTS

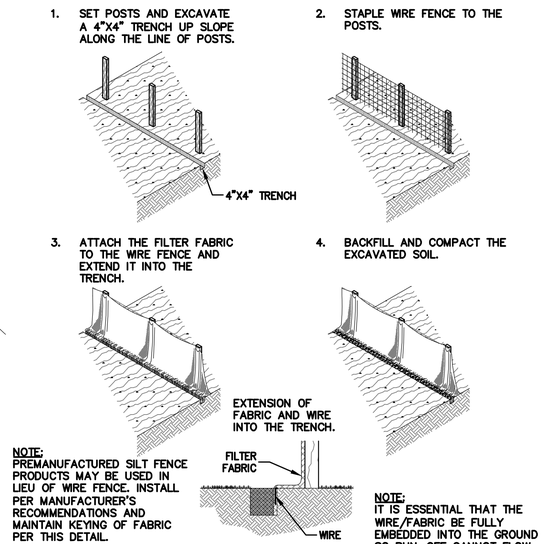


NOTE:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3" TO 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
2. CONTRACTOR IS RESPONSIBLE FOR REGULAR MAINTENANCE AND INSPECTION. THE SILT SHALL BE CLEANED OUT WHEN IT REACHES HALF THE HEIGHT OF THE ROLL.

5 ER-2 **STRAW ROLLS**
NTS



6 ER-2 **EXISTING TREE PROTECTION DETAIL**
NTS



NOTE:
PREMANUFACTURED SILT FENCE PRODUCTS MAY BE USED IN LIEU OF WIRE FENCE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND MAINTAIN KEYING OF FABRIC PER THIS DETAIL.

NOTE:
IT IS ESSENTIAL THAT THE WIRE/FABRIC BE FULLY EMBEDDED INTO THE GROUND SO RUN-OFF CANNOT FLOW FREELY UNDER FENCE.

7 ER-2 **SILT FENCE**
NTS

REGISTERED PROFESSIONAL ENGINEER PETER CARLSON No. C79550 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

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

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
SANTA CLARA COUNTY
APN: 537-24-030

EROSION CONTROL DETAILS

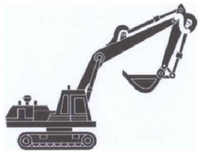
REVISIONS	BY
-	-
-	-
-	-
-	-
-	-

JOB NO:	2232132
DATE:	06-05-24
SCALE:	NTS
DESIGN BY:	TB
CHECKED BY:	JH
SHEET NO:	ER-2

09 OF 10 SHEETS

Heavy Equipment Operation

Best Management Practices for the Construction Industry



Who should use this information?

- Vehicle and Equipment Operators
- Site Supervisors
- General Contractors
- Home Builders
- Developers

Doing the Job Right

Site Planning and Preventive Vehicle Maintenance

- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for repair leaks.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site where cleanup is easier.
- ❑ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers, and properly dispose as hazardous waste (recycle whenever possible).
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- ❑ Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.

Storm Water Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm water pollution. Prevent leaks by properly maintaining equipment and utilizing drip pans to place under any leaking equipment. Remove any leaking or malfunctioning equipment from the site as soon as possible.

Spill Cleanup

- ❑ Clean up spills immediately when they happen.
- ❑ Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/or rags) whenever possible and properly dispose of absorbent materials.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ❑ Use as little water as possible for dust control. Ensure water doesn't leave silt or discharge to storm drains.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately: Police (non-emergency): 650-903-6350. Fire & Environmental Safety: 650-903-6378.
- ❑ If the spill poses a significant hazard to human health and safety, property or the environment, you must also report it to the State Office of Emergency Services.

Roadwork and Paving

Best Management Practices for the Construction Industry



Who should use this information?

- Road Crews
- Driveway/Sidewalk/Parking Lot Construction Crews
- Seal Coat Contractors
- Operators of grading Equipment, Paving Machines, Dump Trucks, Concrete Mixers
- Construction Inspectors
- General Contractors
- Home Builders
- Developers

Doing the Job Right

General Business Practices

- ❑ Develop and implement erosion/sediment control plans for roadway embankments.
- ❑ Schedule excavation and grading work during dry weather.
- ❑ Check for and repair leaking equipment.
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- ❑ When refueling or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- ❑ Do not use diesel oil to lubricate equipment parts of clean equipment.
- ❑ Recycle used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly.

During Construction

- ❑ Avoid paving and seal coating in wet weather, or when rain is forecast, to prevent fresh materials from contacting storm water runoff.
- ❑ Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ Protect drainage ways by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.

Storm Water Pollution from Roadwork

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for asphalt, saw-cut slurry, or excavated material to illegally enter storm drains. Extra planning is required to protect storm drain inlets, store and dispose of materials properly and guard against pollution of storm drains, creeks, and the Bay.

- ❑ Never wash excess material from exposed-aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- ❑ Cover stockpiles (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- ❑ Park paving machines over drip pans to catch drips when not in use. Store oily rags in a fire-rated container.
- ❑ Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags), or dig up, remove, and properly dispose of contaminated soil.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- ❑ Avoid over-application by water trucks for dust control.

Asphalt/Concrete Removal

- ❑ Avoid creating excess dust when breaking asphalt or concrete.
- ❑ After breaking up old pavement, be sure to remove all chunks and pieces. Make sure broken pavement does not come in contact with rainfall or runoff.
- ❑ When making saw cuts, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.
- ❑ Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquor in storm drains.

Fresh Concrete and Mortar Application

Best Management Practices for the Construction Industry



Who should use this information?

- Masons and Bricklayers
- Sidewalk Construction Crews
- Patio Construction Workers
- Construction Inspectors
- General Contractors
- Home Builders
- Developers
- Concrete Delivery/Pumping Workers

Doing the Job Right

General Business Practices

- ❑ Wash out concrete mixers only in designated wash-out areas in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- ❑ Wash out chutes onto dirt areas at site that do not flow to streets or drains.
- ❑ Always store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- ❑ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall and runoff.
- ❑ Do not use diesel fuel as a lubricant on concrete forms, tools or trailers.

Storm Drain Pollution from Fresh Concrete and Mortar Applications

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks can block storm drains, causes serious problems and is prohibited by law.

During Construction

- ❑ Don't mix up more fresh concrete or cement than you will use in a two-hour period.
- ❑ Set up and operate small mixers on tarps or heavy plastic drop cloths.
- ❑ When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- ❑ Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.
- ❑ 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) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ❑ When breaking up pavement, be sure to pick up all the pieces and dispose of properly. Recycle large chunks of broken concrete at a landfill.
- ❑ Never bury waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- ❑ Never dispose of washout into the street, storm drains, drainage ditches or streams.

Preventing Pollution: It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay without treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or bay lands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street storm drain. Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight storm water pollution. To comply with this program, contractors must comply with the practices described in this blueprint.

Small Business Hazardous Waste Disposal Program

Santa Clara County businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call: 408-299-7300 for a quote, more information or guidance on disposal.

Spill Response Agencies

DIAL 9-1-1

State Office of Emergency Services Warning Center (24 hours): 800-852-7550

Santa Clara County Environmental Health Services: 408-299-6930

Local Pollution Control Agencies

County of Santa Clara Pollution Prevention Program: 408-441-1195

County of Santa Clara Integrated Waste Management Program: 408-441-1198

County of Santa Clara District Attorney Environmental Crimes Hotline: 408-299-TIPS

Santa Clara County Recycling Hotline: 800-533-8414

Santa Clara Valley Water District: 408-265-2600

Santa Clara Valley Water District Pollution Hotline: 888-510-5151

Regional Water Quality Control Board San Francisco Bay Region: 510-622-2300

Palo Alto Regional Water Quality Control Plant: 650-329-2598
Serving East Palo Alto Sanitary District, Los Altos, Los Altos Hills, Mountain View, Palo Alto, Stanford

City of Mountain View

Building Division: 650-903-6313

Fire & Environmental Protection Division: 650-903-6378

Solid Waste Division: 650-903-6311

Local Accredited Laboratories List

http://www.cdph.ca.gov/certlic/labs/Documents/ELAPLablist.xls

Landscaping, Gardening, and Pool Maintenance

Best Management Practices for the Construction Industry



Who should use this information?

- Landscapers
- Gardeners
- Swimming Pool/Spa Service and Repair Workers
- General Contractors
- Home Builders
- Developers

Doing the Right Job

General Business Practices

- ❑ Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- ❑ Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- ❑ Schedule grading and excavation projects during dry weather.
- ❑ Use temporary check dams or ditches to divert runoff away from storm drains.
- ❑ Protect storm drains with sandbags or other sediment controls.
- ❑ Re-vegetation is an excellent form of erosion control for any site.

Landscaping/Garden Maintenance

- ❑ Use pesticides sparingly, according to instructions on the label. Rinse empty containers, and use rinse water as product. Dispose of rinsed, empty containers in the trash. Dispose of unused pesticides as hazardous waste.
- ❑ Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.
- ❑ Curbside pickup of yard waste is provided for Mountain View residents. Place yard waste in approved containers at curbside for pickup on recycling collection days. Commercial entities may take yard waste directly to the SMaRT Station® in Sunnyvale (fees apply). Contact the SMaRT Station®: 408-752-8530 for further information.
- ❑ Cover loads with a tarp when transporting to a facility.
- ❑ Do not blow or rake leaves, etc. into the street, or place yard waste in gutters or on dirt shoulders. Sweep up any leaves, litter or residue in gutters or on street.

Pool/Fountain/Spa Maintenance

Draining Pools or Spas

When it's time to drain a pool, spa, or fountain, please be sure to call the City of Mountain View Fire and Environmental Protection Division at: 650-903-6378 before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows shall not exceed 100 gallons per minute.

- ❑ Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.
- ❑ If possible, when emptying a pool or spa, let chlorine dissipate for a few days and then recycle/reuse water by draining it gradually onto a landscaped area.
- ❑ Do not use copper-based algaecides. Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- ❑ Never clean a filter in the street or near a storm drain. Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- ❑ If there is no suitable dirt area, call your local wastewater treatment plant for instructions on discharging filter backwash or rinse water to the sanitary sewer.

Storm Water Pollution From Landscaping and Swimming Pool Maintenance

Many landscaping activities expose soils and increase the likelihood that earth and garden chemicals will run off into the storm drains during irrigation or when it rains. Swimming pool water containing chlorine and copper-based algaecides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

Painting and Application of Solvents and Adhesives

Best Management Practices for the Construction Industry



Who should use this information?

- Homeowners
- Painters
- Paperhangers
- Plasterers
- Graphic Artists
- Dry Wall Crews
- Floor Covering Installers
- General Contractors
- Home Builders
- Developers

Doing the Job Right

Handling Paint Products

- ❑ **Keep all liquid paint products and wastes away from the gutter, street, and storm drains.** Liquid residues from paints, thinners, solvents, glues, and cleaning fluids are hazardous wastes and must be disposed of at a hazardous waste collection facility. Contact the Santa Clara County Hazardous Waste Program at 408-299-7300.
- ❑ When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be disposed of as garbage in a sanitary landfill. Empty, dry paint cans also may be recycled as metal.
- ❑ Wash water from painted buildings constructed before 1978 can contain high amounts of lead, even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory.
- ❑ If there is loose paint on the building, or if the paint tests positive for lead, block storm drains. Check with the wastewater treatment plant to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

Painting Cleanup

- ❑ **Never clean brushes or rinse paint containers into a street, gutter, storm drain, French 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 and residue as hazardous waste.
- ❑ For more information about proper paint disposal, refer to PaintCare California at: www.paintcare.org/california

Paint Removal

- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury or tributyl tin must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.
- ❑ When stripping or cleaning building exteriors with a high-pressure water, block storm drains. Direct wash water onto a dirt area and spade into soil. Or, check Palo Alto Regional Water Quality Control Plant at: 650-329-2598 to find out if you can collect (mop or vacuum) building cleaning water and dispose to the sanitary sewer. Sampling of the water may be required to assist the wastewater treatment authority in making its decision.

Recycle/Reuse Leftover Paints Whenever Possible

- ❑ Recycle or donate excess **water-based (latex) paint**, or return to supplier.
- ❑ Reuse leftover **oil-based paint**. Dispose of non-recyclable thinners, sludge and unwanted paint, as hazardous waste.
- ❑ Unopened cans of paint may be able to be returned to the paint vendor. Check with the vendor regarding its "buy-back" policy.

Storm Water Pollution from Paints, Solvents and Adhesives

All paints, solvents and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

Mountain View Municipal Code Requirements

Mountain View Municipal Code Chapter 35.31.3.1 Discharge to curbside gutter, storm sewer, storm drain or natural outlets

It shall be unlawful to discharge or cause a threatened discharge to any curbside gutter, storm sewer, storm drain gutter, creek or natural outlet any domestic sewage, sanitary sewage, industrial wastes or polluted waters except where permission is granted by the fire chief or his designee. Unlawful discharges to storm drains shall include, but are not limited to discharges from: toilets, sinks, commercial or industrial processes, cooling systems, air compressors, boilers, fabric or carpet cleaning, equipment cleaning, vehicle cleaning, swimming pools, spas, fountains, construction activities (e.g., painting, paving, concrete placement, sawcutting, grading), painting, and paint stripping, unless specifically permitted by a discharge permit or unless exempted pursuant to regulations established by the fire chief or his designee. Additionally, it shall be unlawful to discharge any pollutants or waters containing pollutants that would contribute to violations of the city's stormwater discharge permit or applicable water quality standards.

Mountain View Municipal Code Chapter 35.32.10 Discharges and prevention thereof through implementation of best management practices

Construction Areas. All construction projects occurring within city limits shall be conducted in a manner which prevents the release of hazardous materials or hazardous waste to the soil or groundwater, and minimizes the discharge of hazardous materials, hazardous wastes, polluted water and sediments to the storm sewer system. Practices which shall be implemented to meet the intent of this requirement are described in the City of Mountain View's document "It's In the Contract! (But Not in the Bay)." The city may require any additional practices consistent with its NPDES stormwater discharge permit if it concludes that the intent of this section is not being met during the construction process.
A stormwater pollution prevention plan (SWPPP) shall be prepared and available at the site for all projects regulated under the state's "general construction" permit and for, any other projects for which the fire department (fire and environmental protection division) determines that a SWPPP is necessary to protect surface waters.

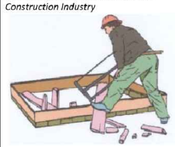
Mountain View Municipal Code Chapter 35.32.2.1 Discharge Permit

It shall be unlawful for any person or organization to discharge or cause to be discharged any industrial wastes or polluted water whatsoever directly or indirectly into the sewer system without first obtaining a permit for discharge. The discharge applicant shall not commence discharge prior to permit issuance. Furthermore, it shall be unlawful for any person to discharge any industrial wastes or polluted water in excess of the quantity or quality limitations, or to violate any other requirement set forth in this article or in a permit for discharge.

Criminal and judicial penalties can be assessed for non-compliance.

General Construction and Site Supervision

Best Management Practices for the Construction Industry



Who should use this information?

- General Contractors
- Site Supervisors
- Inspectors
- Home Builders
- Developers

Storm Water Pollution from Construction Activities

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter, or street have a direct impact on local creeks and the Bay.
As a contractor, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Doing the Job Right

General Principles

- ❑ Keep an orderly site and ensure good housekeeping practices are used.
- ❑ Maintain equipment properly.
- ❑ Cover materials when they are not in use.
- ❑ Keep materials away from streets, storm drains and drainage channels.
- ❑ Ensure dust control water doesn't leave site or discharge storm drains.

Advance Planning to Prevent Pollution

- ❑ Schedule excavation and grading activities for dry weather periods. To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the Erosion and Sediment Control Manual, available from the Regional Water Quality Control Board, as a reference.
- ❑ Control the amount of runoff crossing your site (especially during excavation) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce storm water runoff velocities by constructing temporary check dams or berms where appropriate.
- ❑ Train your employees and subcontractors. Make these best management practices available to everyone who works on the construction site. Inform subcontractors about the storm water requirements and their own responsibilities.

Good Housekeeping Practices

- ❑ Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, bermed if necessary. Make major repairs off site.
- ❑ Keep materials out of the rain—prevent runoff contamination at the source. Cover exposed piles of soil or construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- ❑ Keep pollutants off exposed surfaces. Place trashcans and recycling receptacles around the site to minimize litter.
- ❑ Clean up leaks, drips and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- ❑ 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. Never clean out a dumpster by hosing it down on the construction site.
- ❑ Set portable toilets away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

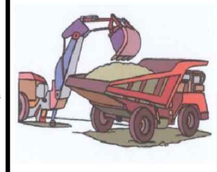
- ❑ Practice **Source Reduction**—minimize waste when you order materials. Order only the amount you need to finish the job.
- ❑ Use recyclable materials whenever possible. Arrange for pick-up of recyclable materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.
- ❑ Dispose of all wastes properly. Many construction materials and wastes, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or steam bed. Contact the Solid Waste staff for information about recycling and disposal requirements at: 650-903-6311.

Permits

- ❑ In addition to local building permits, you will need to obtain coverage under the State's General Construction Activity Storm water Permit if your construction site disturbs one acre or more. Obtain information from the Regional Water Quality Control Board.

Earth-Moving and Dewatering Activities

Best Management Practices for the Construction Industry



Who should use this information?

- Bulldozer, Back Hoe, and Grading Machine operators
- Dump Truck Drivers
- Site Supervisors
- General Contractors
- Home Builders
- Developers

Doing the Job Right

General Business Practices

- ❑ Schedule excavation and grading work during dry weather.
- ❑ Perform major equipment repairs away from the job site.
- ❑ When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- ❑ Do not use diesel oil to lubricate equipment parts, or clean equipment.

Practices During Construction

- ❑ Remove existing vegetation only when absolutely necessary. Plant temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Protect down slope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures.

Storm Water Pollution From Earth-Moving Activities And Dewatering

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces. Contaminated groundwater is a common problem in the Santa Cara Valley. Depending on soil types and site history, groundwater pumped from construction sites may be contaminated with toxics (such as oil or solvents) or laden with sediments. Any of these pollutants can harm wildlife in creeks or the Bay, or interfere with wastewater treatment plant operation.
Discharging sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

- ❑ Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations

1. Check for Toxic Pollutants

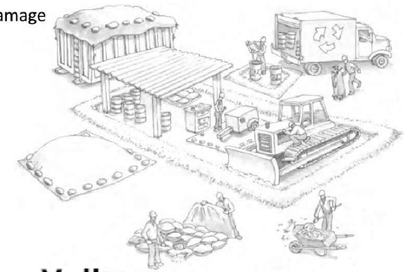
- ❑ Check for odors, discoloration, or an oily sheen on groundwater.
- ❑ Call your local wastewater treatment agency and ask whether the groundwater must be tested.
- ❑ If contamination is suspected, have the water tested by a certified laboratory.
- ❑ Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain (if no sediments present) or sanitary sewer. OR, you may be required to collect and haul pumped groundwater offsite for treatment and disposal at an appropriate treatment facility.

2. Check for Sediment Levels

- ❑ If the water has been determined to be unpolluted and is clear, the pumping time is less than 24 hours, and the flow rate is less than 20 gallons per minute, you may pump water to the street or storm drain.
- ❑ If the pumping time is more than 24 hours and the flow rate greater than 20 gpm, call your local wastewater treatment plant for guidance.
- ❑ If the water is not clear, solids must be filtered or settled out by pumping to a settling tank prior to discharge. Options for filtering include:
  - Pumping through a perforated pipe sunk part way into a small pit filled with gravel;
  - Pumping from a bucket placed below water level using a submersible pump;
  - Pumping through a filtering device such as a swimming pool filter or filter fabric wrapped around end of suction pipe.
- ❑ When discharging to a storm drain, protect the inlet using a barrier or burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate. OR pump water through a grassy swale prior to discharge.

Blueprint for a Clean Bay

Remember: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. You may be held responsible for any environmental damage caused by your subcontractors or employees.



Best Management Practices for the Construction Industry

Santa Clara Valley
Urban Runoff
Pollution Prevention Program

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

REGISTERED PROFESSIONAL ENGINEER PETER CARLSON No. C79555 CIVIL STATE OF CALIFORNIA ORIGINAL SIGNATURES IN BLUE INK

TOOFAN RESIDENCE
200 HAPPY ACRES
LOS GATOS, CALIFORNIA
APN: 537-24-030
SANTA CLARA COUNTY

STORMWATER POLLUTION PREVENTION PLAN

REVISIONS	BY
-	-
-	-
-	-
-	-
-	-

JOB NO:	2232132
DATE:	06-05-24
SCALE:	NTS
DESIGN BY:	TB
CHECKED BY:	JH
SHEET NO:	SW-1

10 OF 10 SHEETS

PLANS FOR

THE IMPROVEMENT OF HAPPY ACRES PRIVATE COMMON DRIVEWAY

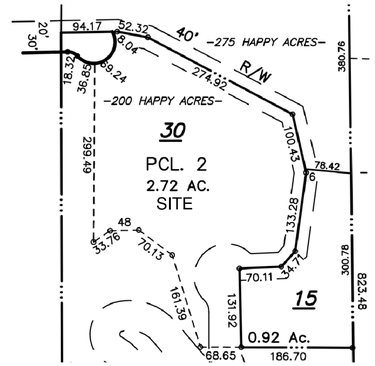
LANDS OF TOOFAN
200 HAPPY ACRES, LOS GATOS
A.P.N. 537-24-030



VICINITY MAP
N.T.S.

SHEET INDEX

SHEET NO.	DESCRIPTION
C1	TITLE SHEET
C2	SITE PLAN
C3	PLAN & PROFILE - NEW COMMON DRIVEWAY
C4	CROSS SECTIONS & DETAILS
C5	EROSION CONTROL PLAN



LOCATION MAP
N.T.S.

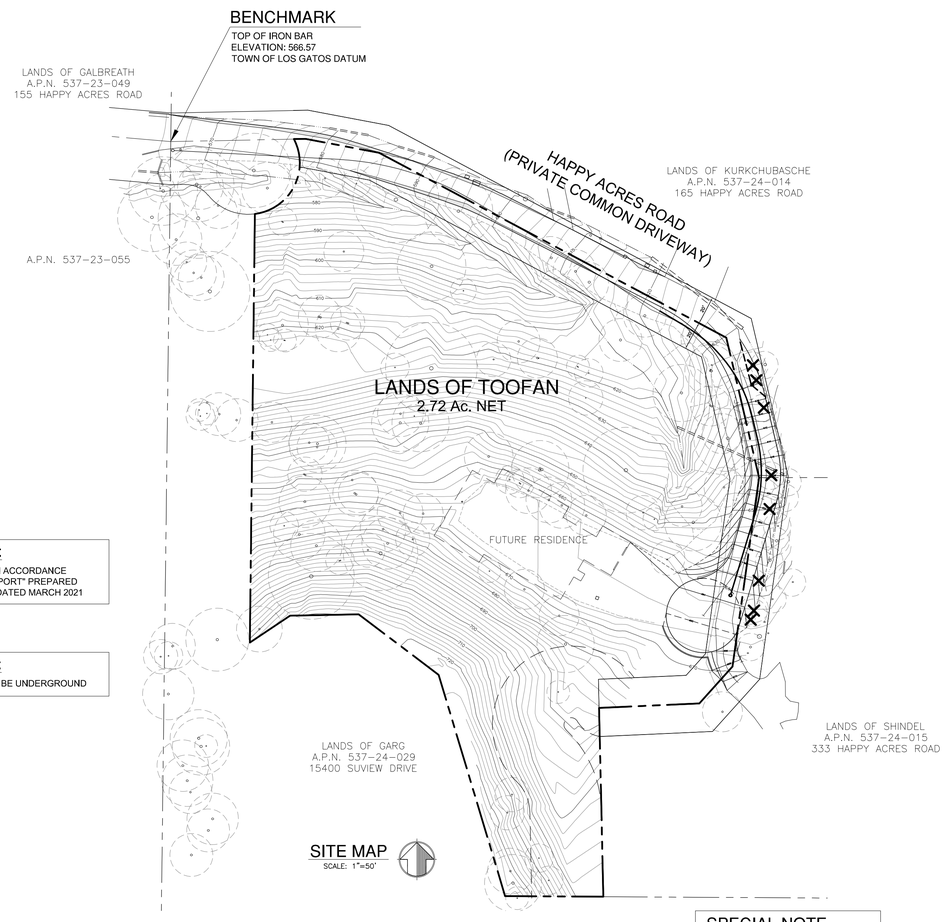
ABBREVIATIONS

A.D.	= Area Drain
AC. or A.C.	= Asphalt Concrete
B.S.L.	= Building Setback Line
B.W.	= Bottom of Wall
C.B.	= Catch Basin
C.O.	= Clean Out
CL	= Centerline
Conc.	= Concrete
Div. V.	= Diversion Valve
D/W	= Driveway
E.P.	= Edge of Pavement
Ex. or Exist.	= Existing
F.F.	= Finish Floor
F.H.	= Fire Hydrant
F.L.	= Flow Line
Fnd.	= Found
IP.	= Iron Pipe
L.F.	= Linear Feet
L.L.	= Leach Line
Max.	= Maximum
Min.	= Minimum
Mon.	= Monument
N.T.S.	= Not To Scale
NAT.	= Natural
Pav.	= Pavement
PL or Prop.	= Property Line
P.W.L.E.	= Private Water Line Easement
R/W	= Right-of-Way
Ret.	= Retaining
S.T.	= Septic Tank
T.L.	= Tight Line
T.W.	= Top of Wall
Typ.	= Typical
W	= Water
W.M.	= Water Meter

GENERAL NOTES

1. TOPOGRAPHY OBTAIN OCTOBER, 2019 AND JUNE 2021.
2. ADDITIONAL TOPOGRAPHY PROVIDED BY OWNER.
3. THIS TOPOGRAPHIC MAP REPRESENTS SURFACE FEATURES ONLY.
4. CONTOUR INTERVAL IS 2-FEET WITH SPOT ELEVATIONS.
5. BENCHMARK IS TOWN OF LOS GATOS DATUM.
6. PROPERTY LINES SHOWN ARE RECORD DATA.
7. ALL GRADING SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED FOR THIS SITE, SEE GRADING NOTE.
8. THE COMMON PRIVATE DRIVEWAY SHALL BE 20' WIDE MIN.
9. MAINTAIN NATURAL DRAINAGE PATTERN AND EXISTING SHEET-FLOW INTO EXISTING SWALES AND CULVERTS.

BENCHMARK
TOP OF IRON BAR
ELEVATION: 566.57
TOWN OF LOS GATOS DATUM



SITE MAP
SCALE: 1"=50'

GRADING NOTE:

ALL GRADING SHALL BE IN ACCORDANCE WITH "GEOTECHNICAL REPORT" PREPARED BY GEOFORENSICS, INC. DATED MARCH 2021

UTILITIES NOTE:

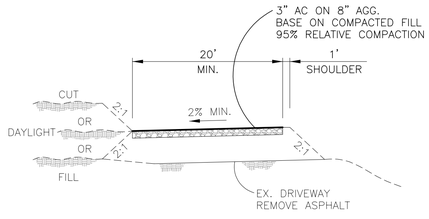
ALL NEW UTILITIES SHALL BE UNDERGROUND

SPECIAL NOTE

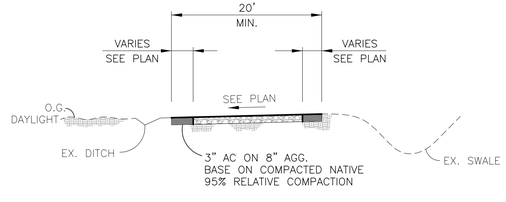
1. TRIM AND CUT BRANCHES AND VEGETATION TO OBTAIN 15-FEET MIN. VERTICAL CLEARANCE.

GENERAL NOTES

OWNERS:	MR. TOOFAN 200 HAPPY ACRES ROAD LOS GATOS, CA (408) 910-1528
PROPERTY ADDRESS:	200 HAPPY ACRES ROAD LOS GATOS, CA
EXISTING ZONING:	R-1-20
NET ACREAGE:	2.72 Ac.
PROPOSED USE:	SINGLE FAMILY RESIDENCE
STORM:	EXISTING NATURAL DRAINAGE PATTERNS, CULVERS & SWALES
SANITARY:	WEST VALLEY SANITATION DISTRICT EXISTING IN HAPPY ACRES ROAD & ON-SITE
WATER:	SAN JOSE WATER CO. EXISTING IN HAPPY ACRES ROAD & ON-SITE
GAS:	P.G.&E. EXISTING IN HAPPY ACRES ROAD & ON-SITE
ELECTRIC:	P.G.&E. EXISTING IN HAPPY ACRES ROAD & ON-SITE
TELEPHONE:	AT&T EXISTING IN HAPPY ACRES ROAD & ON-SITE
CABLE TV:	COMCAST EXISTING IN HAPPY ACRES ROAD & ON-SITE
A.P.N.	537-24-030
SITE IS OF RECORD:	PARCEL 2 PARCEL MAP BOOK 742 OF MAPS PAGES 7-8



NEW PRIVATE COMMON DRIVEWAY
TYPICAL CROSS -SECTION
N.T.S.



EX. DRIVEWAY WIDENING
TYPICAL CROSS -SECTION
N.T.S.

REGISTERED PROFESSIONAL ENGINEER
ALLAN B. EZAODIN
C47265
Exp 12/31/23
CIVIL
STATE OF CALIFORNIA

BY	REVISION DESCRIPTION	DATE	REV.
V.S.	RELEASED TO CLIENT AND TOWN	09.23	0

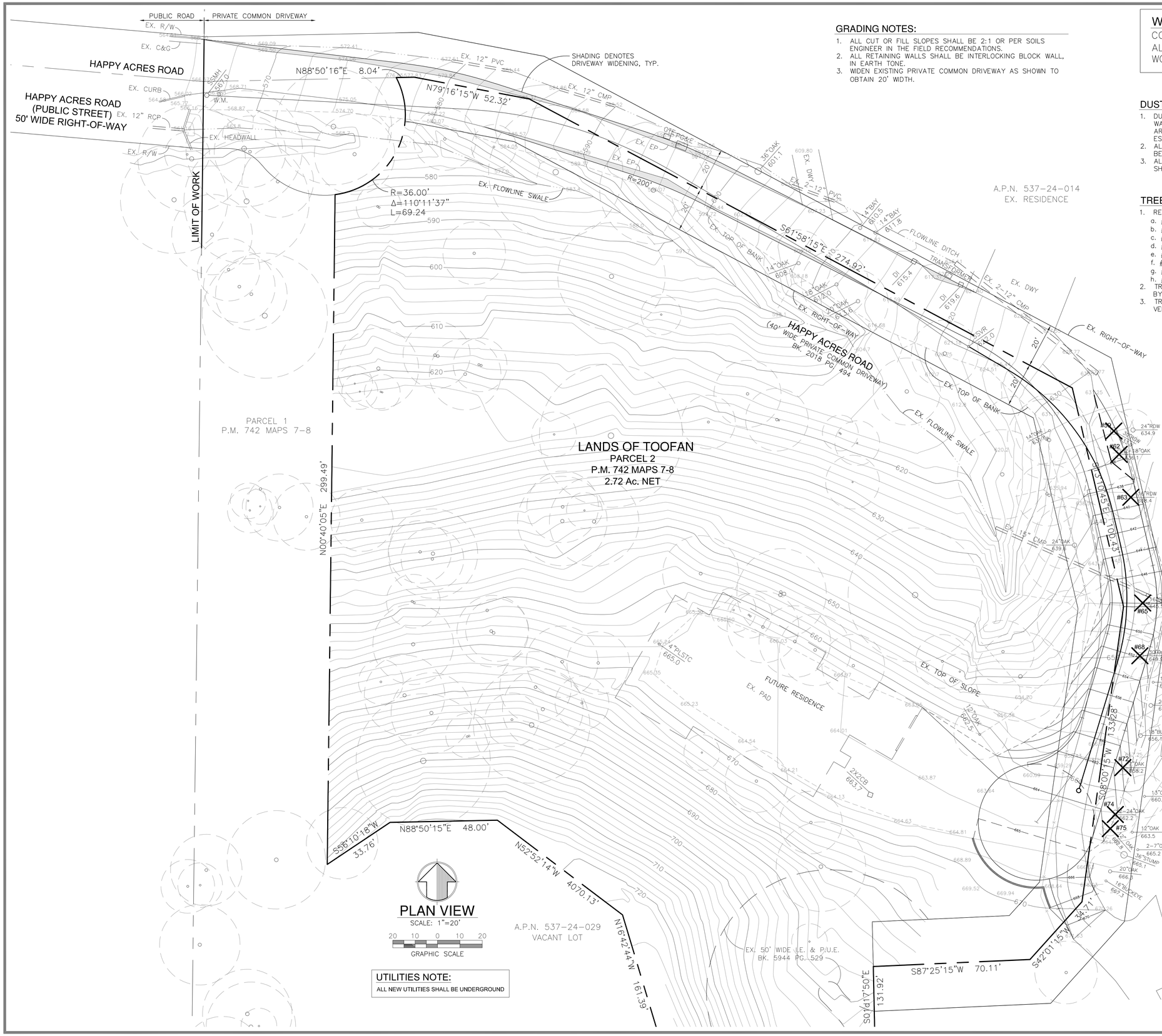
DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE: 9-12-22

PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
408-957-9220
San Jose, California
www.pase.com
Pleasanton, California

R.E. no. 47,265
APPROVED BY:

TITLE SHEET
LANDS OF TOOFAN
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

SHEET NUMBER
CD-1
OF 5 SHEETS
DRAWING NO.
22022-C1



GRADING NOTES:

1. ALL CUT OR FILL SLOPES SHALL BE 2:1 OR PER SOILS ENGINEER IN THE FIELD RECOMMENDATIONS.
2. ALL RETAINING WALLS SHALL BE INTERLOCKING BLOCK WALL, IN EARTH TONE.
3. WIDEN EXISTING PRIVATE COMMON DRIVEWAY AS SHOWN TO OBTAIN 20' WIDTH.

WARNING

CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (U.S.A.) AT (800) 227-2600 TWO (2) WORKING DAYS PRIOR TO START OF WORK.

DUST CONTROL NOTES:

1. DUST GENERATED ON THE PROJECT SITE SHALL BE CONTROLLED BY WATERING OR APPLYING APPROVED DUST PALLIATIVE ON ALL EXPOSED AREAS AT LEAST TWICE DAILY DURING DEMOLITION, EXCAVATION AND ESPECIALLY DURING CLEARING AND GRADING OPERATIONS.
2. ALL HAUL TRUCKS TRANSPORTING LOOSE MATERIAL OFF-SITE SHALL BE COVERED.
3. ALL VISIBLE MUD OR DIRT TRACKED OUT ONTO ADJACENT ROADS SHALL BE REMOVED USING WET POWER VACUUM STREET SWEEPERS.

TREE NOTES:

1. REMOVE TREES AS SHOWN (8 TOTAL)
   a. #59 24" CEDAR
   b. #62 18" OAK
   c. #63 13" CEDAR
   d. #65 16.5" OAK
   e. #68 24" OAK
   f. #72 6" BUCKEYE
   g. #74 16 OAK
   h. #75 10" BUCKEYE
2. TREES WILL BE PROTECTED DURING CONSTRUCTION PER ARBORIST REPORT BY BO FIRESTONE CERTIFIED ARBORIST #WE-8525A.
3. TRIM AND CUT BRANCHES AND VEGETATION TO OBTAIN 15-FEET MIN. VERTICAL CLEARANCE.

IMPERVIOUS AREA

LOCATION	EXISTING S.F.	NEW S.F.
WIDENING EX. DRIVEWAY	-	1,235
EXISTING DRIVEWAY	2,720	-
NEW FIRETRUCK TURNAROUND	-	2,122
NEW DRIVEWAY	-	3,563
TOTAL	2,720	6,920

NEW IMPERVIOUS AREA: 4,200 S.F.

REGISTERED PROFESSIONAL ENGINEER
ALLAN B. EZADDIN
C47265
Exp 12/31/23
CIVIL
STATE OF CALIFORNIA

BY	REVISION DESCRIPTION	DATE	REV
V.S.	RELEASED TO CLIENT AND TOWN	09.22	0

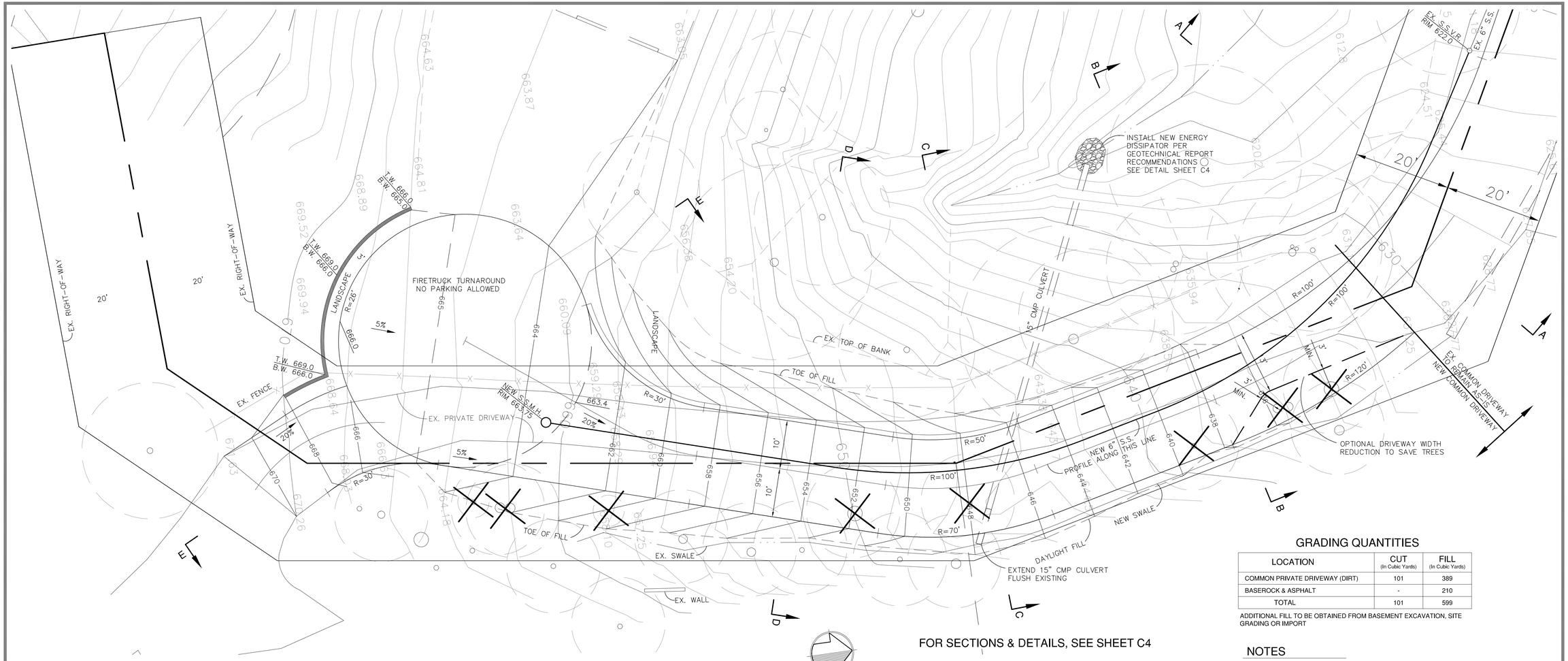
DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE 9-12-22
APPROVED BY:

PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
www.pase.com
408-867-9220 · Pleasanton, California
San Jose, California
R.E. NO. 47,265

SITE PLAN

LANDS OF TOOFAN
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

SHEET NUMBER
CD-2
OF 5 SHEETS
DRAWING NO.
22022-C2



GRADING QUANTITIES

LOCATION	CUT (In Cubic Yards)	FILL (In Cubic Yards)
COMMON PRIVATE DRIVEWAY (DIRT)	101	389
BASEROCK & ASPHALT	-	210
TOTAL	101	599

ADDITIONAL FILL TO BE OBTAINED FROM BASEMENT EXCAVATION, SITE GRADING OR IMPORT

FOR SECTIONS & DETAILS, SEE SHEET C4

NOTES

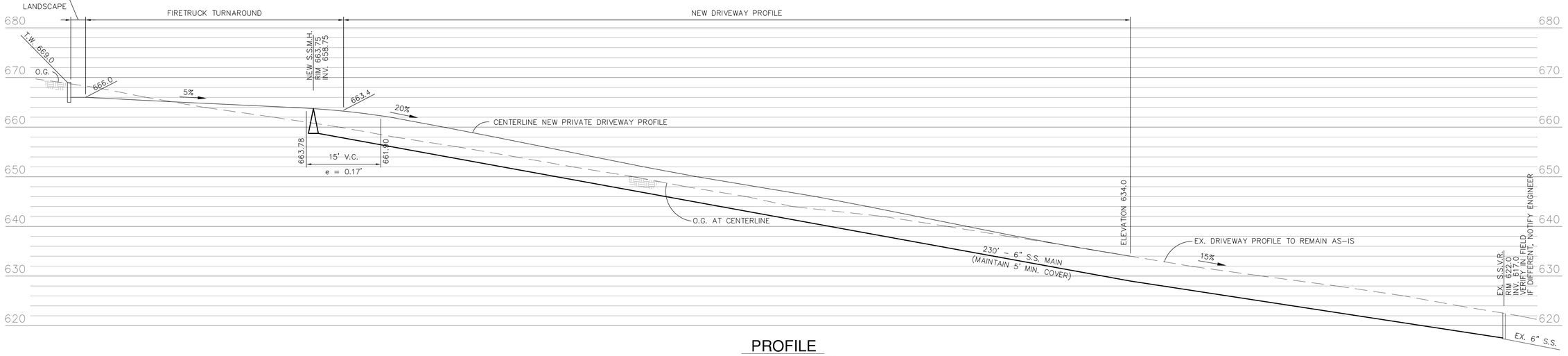
1. ALL NEW CUT OR FILL SLOPES SHALL HAVE A MINIMUM 2:1 SLOPE OF FLATTER.
2. ALL RETAINING WALLS SHALL BE INTERLOCKING BLOCK WALL IN EARTH TONE.
3. FOR SLOPE STABILITY ANALYSIS, SEE REPORT PREPARED BY GEOFORENSICS, INC. DATED AUGUST 29, 2022.
4. ALL FILL MATERIALS MUST BE APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO INSTALLATION.
5. FOR FIRETRUCK MOVEMENT IN THE TURNAROUND AREA, SEE ATTACHED DRAWING FTM1.

PLAN VIEW

SCALE: 1"=10'

10 5 0 5 10

GRAPHIC SCALE



PROFILE

SCALE: 1"=10' HORIZ. & VERT.

REGISTERED PROFESSIONAL ENGINEER
ALLAN B. EZAOUIN
C47265
Exp 12/31/23
CIVIL
STATE OF CALIFORNIA

BY	REVISION DESCRIPTION	DATE	REV.
V.S.	RELEASED TO CLIENT AND TOWN	09.22	0

DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE 9-12-22
APPROVED BY:

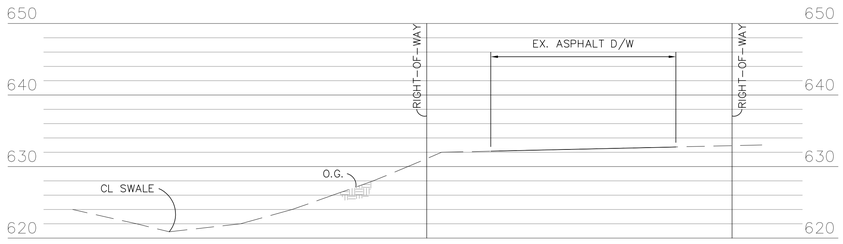
PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
www.pase.com
408-957-9220 • Pleasanton, California
San Jose, California

R.E. NO. 47,265

PLAN & PROFILE
NEW COMMON DRIVEWAY
LANDS OF TOOFAN

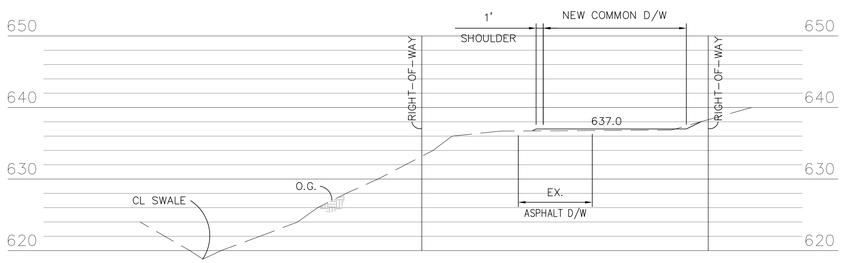
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

SHEET NUMBER
CD-3
OF 5 SHEETS
DRAWING NO.
22022-C3



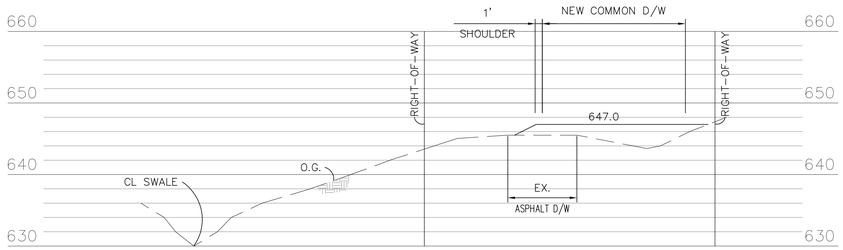
SECTION A-A

SCALE: 1"=10' HORIZ. & VERT.



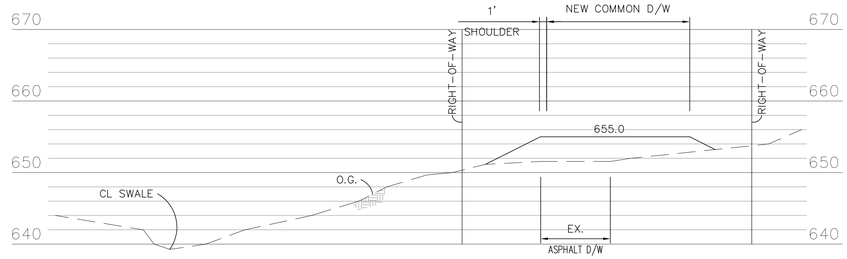
SECTION B-B

SCALE: 1"=10' HORIZ. & VERT.



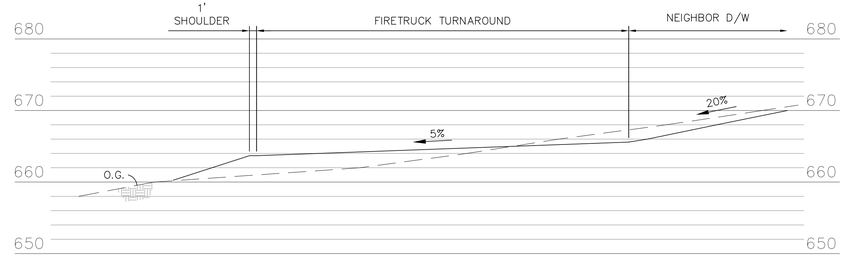
SECTION C-C

SCALE: 1"=10' HORIZ. & VERT.



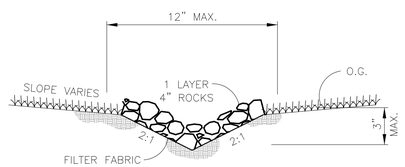
SECTION D-D

SCALE: 1"=10' HORIZ. & VERT.



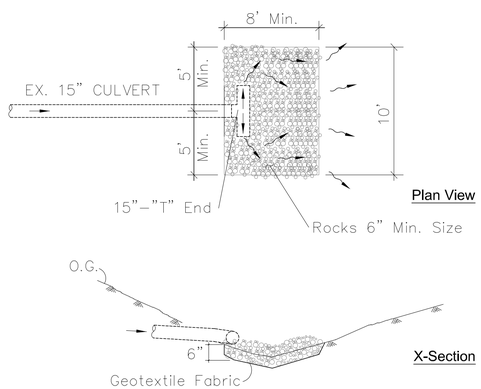
SECTION E-E

SCALE: 1"=10' HORIZ. & VERT.



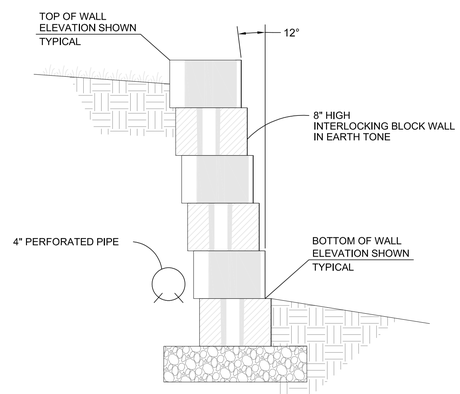
NEW SWALE DETAIL

N.T.S.



OUTLET WITH ENERGY DISSIPATOR DETAIL

N.T.S.



INTERLOCKING BLOCK WALL DETAIL

N.T.S.

REGISTERED PROFESSIONAL ENGINEER
ALLAN B. EZAODIN
C47265
Exp 12/31/23
CIVIL
STATE OF CALIFORNIA

BY	DESCRIPTION	DATE	REV.
V.S.	RELEASED TO CLIENT AND TOWN	09.22	0

DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE 9-12-22
APPROVED BY:

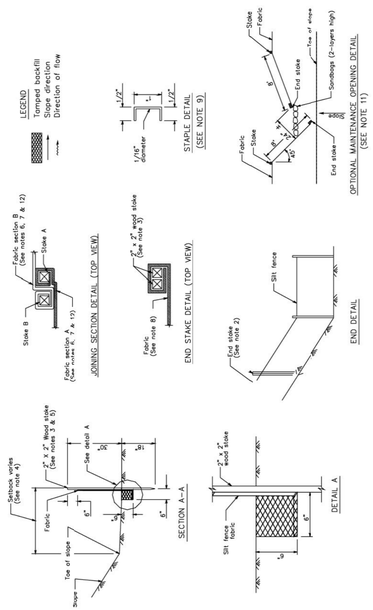
PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
www.pase.com
Pleasanton, California
408-857-6220
San Jose, California
R.E. NO. 47,265

ENLARGED PLAN & PROFILE

LANDS OF TOOFAN
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

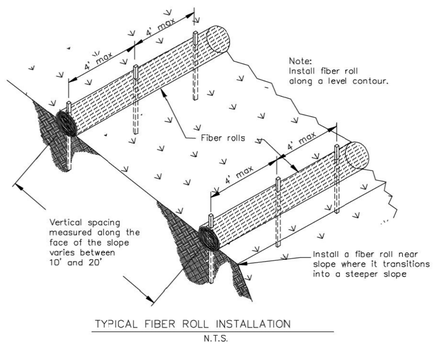
SHEET NUMBER
CD-4
OF 5 SHEETS
DRAWING NO.
22022-C4

SE-1 Silt Fence

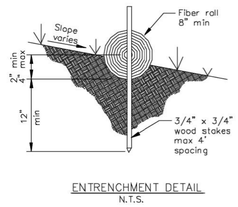


CALIFORNIA STORMWATER BMP HANDBOOK
JANUARY 2003

SE-5 Fiber Rolls



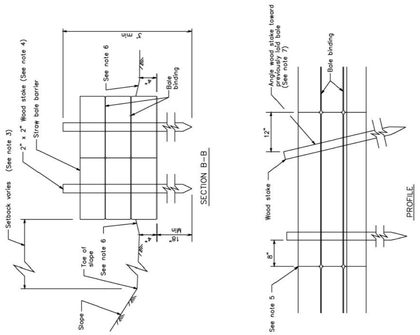
TYPICAL FIBER ROLL INSTALLATION
N.T.S.

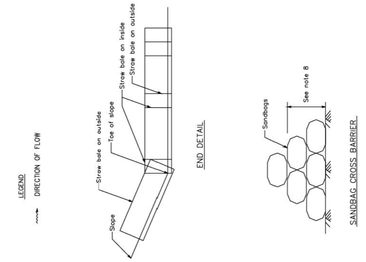


ENTRENCHMENT DETAIL
N.T.S.

CALIFORNIA STORMWATER BMP HANDBOOK
JANUARY 2003

SE-9 Straw Bale Barrier





CALIFORNIA STORMWATER BMP HANDBOOK
JANUARY 2003

EROSION CONTROL NOTES:

1. EROSION CONTROL MEASURES SHALL CONFORM WITH ABAG STANDARDS OR TOWN OF LOS GATOS STANDARDS.
2. EROSION CONTROL SYSTEMS SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE RAINY SEASON.
3. IN THE EVENT OF RAIN, ALL GRADING WORK IS TO CEASE IMMEDIATELY AND THE SITE IS TO BE SEALED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL MEASURES AND APPROVED EROSION CONTROL PLAN.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND REPAIRING EROSION CONTROL SYSTEMS AFTER EACH STORM.
5. ALL CUT AND FILL SLOPES SHALL BE PROTECTED BY SEEDING AND COVERED WITH STRAW MULCH.
6. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY THE SOILS ENGINEER IN FIELD OR TOWN INSPECTOR.
7. CONTRACTOR SHALL PREVENT ANY ACCUMULATION OR DEPOSIT OF DIRT, MUD, SAND, ROCKS, GRAVEL OR DEBRIS ON THE SURFACE OF ANY PAVED ROAD.

EROSION PROTECTION MEASURES:

1. INSTALL SEDIMENT ROLLS (FIBER ROLLS), OR SILT FENCE, OR STRAW BALE DIKES WHERE SHOWN.
2. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
3. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO INSURE THAT NO MUD OR SILTATION LEAVES THE PROJECT SITE.

SPECIAL NOTE:

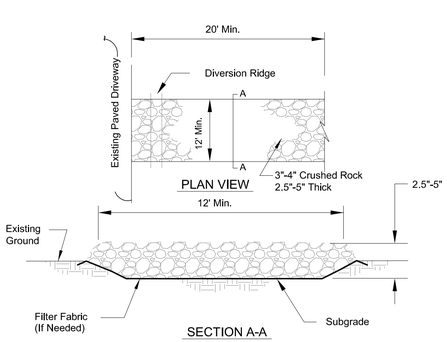
GRADING WORK BETWEEN OCTOBER 15TH AND APRIL 15TH IS AT THE DISCRETION OF THE CITY OF MONTE SERENO.

SEEDING NOTES:

1. SEED AND MULCH WILL BE APPLIED BY OCTOBER 15 TO ALL DISTURBED SLOPES STEEPER THAN 5% AND HIGHER THAN 3 FEET, AND TO ALL CUT AND FILL SLOPES WITHIN OR ADJACENT TO EXISTING ROAD AS DIRECTED BY THE TOWN INSPECTOR.
2. SEED AND FERTILIZER WILL BE APPLIED HYDRAULICALLY OR BY HAND AT THE RATES SPECIFIED BELOW. ON SLOPES, STRAW WILL BE APPLIED BY BLOWER OR BY HAND AND ANCHORED IN PLACE BY PUNCHING

ITEM	POUNDS PER ACRE
"BLANDO" BROME	30
ANNUAL RYE GRASS	20
FERTILIZER (16-20-0 & 15% SULFUR)	500
STRAW MULCH	4,000

3. SEEDED AREAS WILL BE REPAIRED, RESEEDED AND MULCHED IF DAMAGED



Notes:
1. The entrance shall be maintained in a condition that will prevent tracking or flowing of sediment onto public rights-of-way. This may require top dressing repair and/or cleanout of any measures used to trap sediment.

Temporary Gravel Construction Entrance/Exit
N.T.S.

LEGEND:

= STRAW WATTLES OR SILT FENCE
= DIRECTION OF FLOW
= CONSTRUCTION ENTRANCE



PLAN VIEW
SCALE: 1"=30'
30 15 0 15 30
GRAPHIC SCALE

REGISTERED PROFESSIONAL ENGINEER
ALLAN B. EZADDIN
C47265
Exp 12/31/23
CIVIL
STATE OF CALIFORNIA

BY	REVISION DESCRIPTION	DATE	REV.
V.S.	RELEASED TO CLIENT AND TOWN	09.22	0

DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE 9-12-22

PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
408-957-9220 • www.pase.com
San Jose, California • Pleasanton, California

R.E. NO. 47,265
APPROVED BY:

EROSION CONTROL PLAN

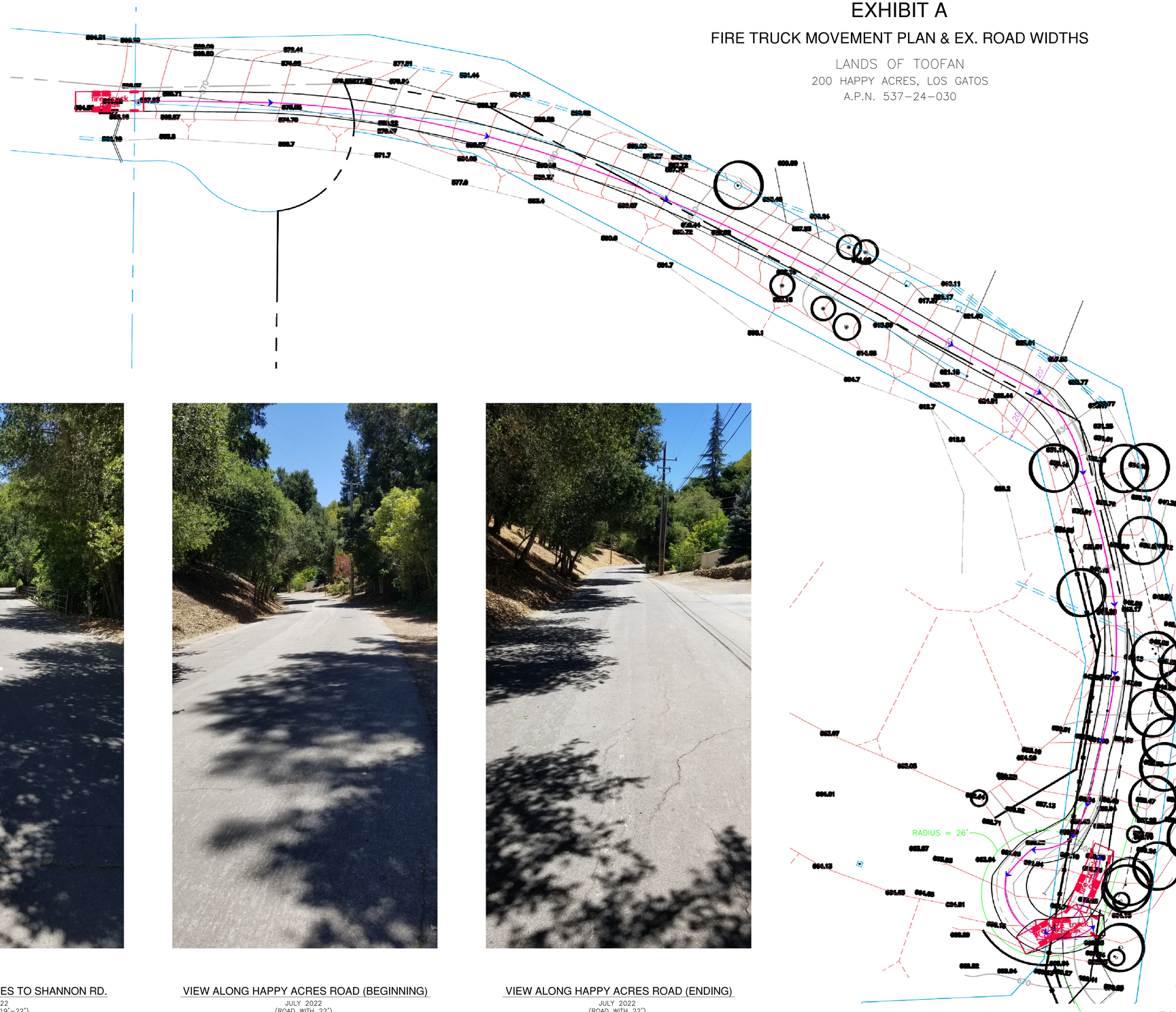
LANDS OF TOOFAN
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

SHEET NUMBER
CD-5
OF 5 SHEETS
DRAWING NO.
22022-C5

EXHIBIT A

FIRE TRUCK MOVEMENT PLAN & EX. ROAD WIDTHS

LANDS OF TOOFAN
200 HAPPY ACRES, LOS GATOS
A.P.N. 537-24-030



VIEW FROM HAPPY ACRES TO SHANNON RD.
JULY 2022
(ROAD WIDTH 19'-22')

VIEW ALONG HAPPY ACRES ROAD (BEGINNING)
JULY 2022
(ROAD WITH 22')

VIEW ALONG HAPPY ACRES ROAD (ENDING)
JULY 2022
(ROAD WITH 22')

BY	REVISION DESCRIPTION	DATE	REV.
V.S.	RELEASED TO CLIENT AND TOWN	09.22	0

DESIGNED BY: V.S.
DRAWN BY: R.S.C.
CHECKED BY: V.S.
SCALE: AS SHOWN
DATE: 9-12-22

PEOPLES ASSOCIATES
STRUCTURAL ENGINEERS
408-957-5220
San Jose, California
www.pase.com
Pleasanton, California

R.E. NO. 47,265
APPROVED BY:

EXHIBIT A
LANDS OF TOOFAN
200 HAPPY ACRES ROAD
LOS GATOS, CALIFORNIA

SHEET NUMBER
FTM1
OF 5 SHEETS
DRAWING NO.
22022-FTM1

NOTES:

"'ATION) =

* CENTER LINE =
* STREET LAMP = SL
* FIRE HYDRANT =
* SEWER LINE = SS
* FENCE =
* WATER METER = WM
* ASPHALT = AC
* SANITARY SEWER CLEAN OUT = SSCO
* SANITARY SEWER MAN HOLE = SSMH
* ELECTRIC BOX = EB
* JOINT POLE =
* CONCRETE = CONC
* MAIL BOX = MB

BOUNDARY LINE =

* SURVEY MONUMENT =
* AREA DRAIN = AD
* IRRIGATION VALVE = IV
* PLASTIC PIPE = PVC
*

SCALE 1"= 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

DISCLAIMER:

SMP ENGINEERS OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN.

NOTE:

THIS MAP REPRESENTS TOPOGRAPHY OF THE SURFACE FEATURES ONLY. UNLESS SPECIFIED ON THIS MAP, LOCATIONS OF THE UNDERGROUND UTILITIES ARE NEITHER INTENDED NOR IMPLIED. FOR THE LOCATIONS OF UNDERGROUND UTILITIES CALL "USA" (1-800-642-2444). SURFACE FEATURES ARE LOCATED BY MEANS OF A STATION AND OFFSET FROM THE CONTROL LINE.

BASIS OF BEARINGS:

FOUND SURVEY MONUMENTS. RECORD INFORMATION WAS USED. PER RECORD MAP, BOOK: 742 PAGE: 7 WHICH IS FILED IN THE COUNTY OF SANTA CLARA RECORDER'S OFFICE.

SITE BENCHMARK:

SURVEY CONTROL SET MAG NAIL ELEVATION=566.57 (TOWN OF LOS GATOS BANCHMARK)

NOTES:

1. ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF.
2. THE GROSS AREA OF LAND OF RECORD IS 118,816.11 SQ. FT. ±.
3. THE MAP WAS BASED ON A GRANT DEED DOC.# 24446095 BY STEWART TITLE CO. DATED 04/02/2020, RECORDED IN SANTA CLARA COUNTY.
4. ALL EXISTING BUILDINGS ARE WOOD.
5. FOR PRECISE SPECIES OF TREES A CERTIFIED ARBORIST SHALL BE CONSULTED.
6. THIS DRAWING REPRESENTS A TOPOGRAPHIC SURVEY PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE PROPERTY LINES SHOWN HEREON ARE COMPILED FROM RECORD DATA AND REPRESENT THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES. PURSUANT TO THE CLIENT'S DIRECTION A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES.

$$\text{SLOPE DENSITY} = \frac{0.0023 \times 2 \times 25619}{2.728} = 43.20\%$$

HAPPY ACRES RD (R/W: 50')

ESMNT (R/W: 40')

BASIS OF BEARINGS:

MATCH LINE

MATCH LINE

200 HAPPY ACRES RD.
LOS GATOS, CA 95032
APN: 537-24-030

SMP ENGINEERS
CIVIL ENGINEERS—LAND SURVEYORS
1534 Carob Lane Los Altos, CA 94024
Tel. (650) 941-8055 Fax (650) 941-8755

Scale: 1" = 20'
Prepared by: J.N.
Checked by: S.R.
Date: 02/28/2024
Project No: 220062

PRELIMINARY BOUNDARY AND TOPOGRAPHIC SURVEY MAP

Sheet No: T1-1

	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE
◇					

CITY OF LOS GATOS

NOTES:

- '''ATION) =
- * CENTER LINE =
- * STREET LAMP = SL
- * FIRE HYDRANT =
- * SEWER LINE = SS
- * FENCE =
- * WATER METER = WM
- * ASPHALT = AC
- * SANITARY SEWER CLEAN OUT = SSCO
- * SANITARY SEWER MAN HOLE = SSMH
- * ELECTRIC BOX = EB
- * JOINT POLE =
- * CONCRETE = CONC
- * MAIL BOX = MB
- BOUNDARY LINE =
- * SURVEY MONUMENT =
- * AREA DRAIN = AD
- * IRRIGATION VALVE = IV
- * PLASTIC PIPE = PVC
- *

DISCLAIMER:

SMP ENGINEERS OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN.

NOTE:

THIS MAP REPRESENTS TOPOGRAPHY OF THE SURFACE FEATURES ONLY. UNLESS SPECIFIED ON THIS MAP, LOCATIONS OF THE UNDERGROUND UTILITIES ARE NEITHER INTENDED NOR IMPLIED. FOR THE LOCATIONS OF UNDERGROUND UTILITIES CALL "USA" (1-800-642-2444). SURFACE FEATURES ARE LOCATED BY MEANS OF A STATION AND OFFSET FROM THE CONTROL LINE.

BASIS OF BEARINGS:

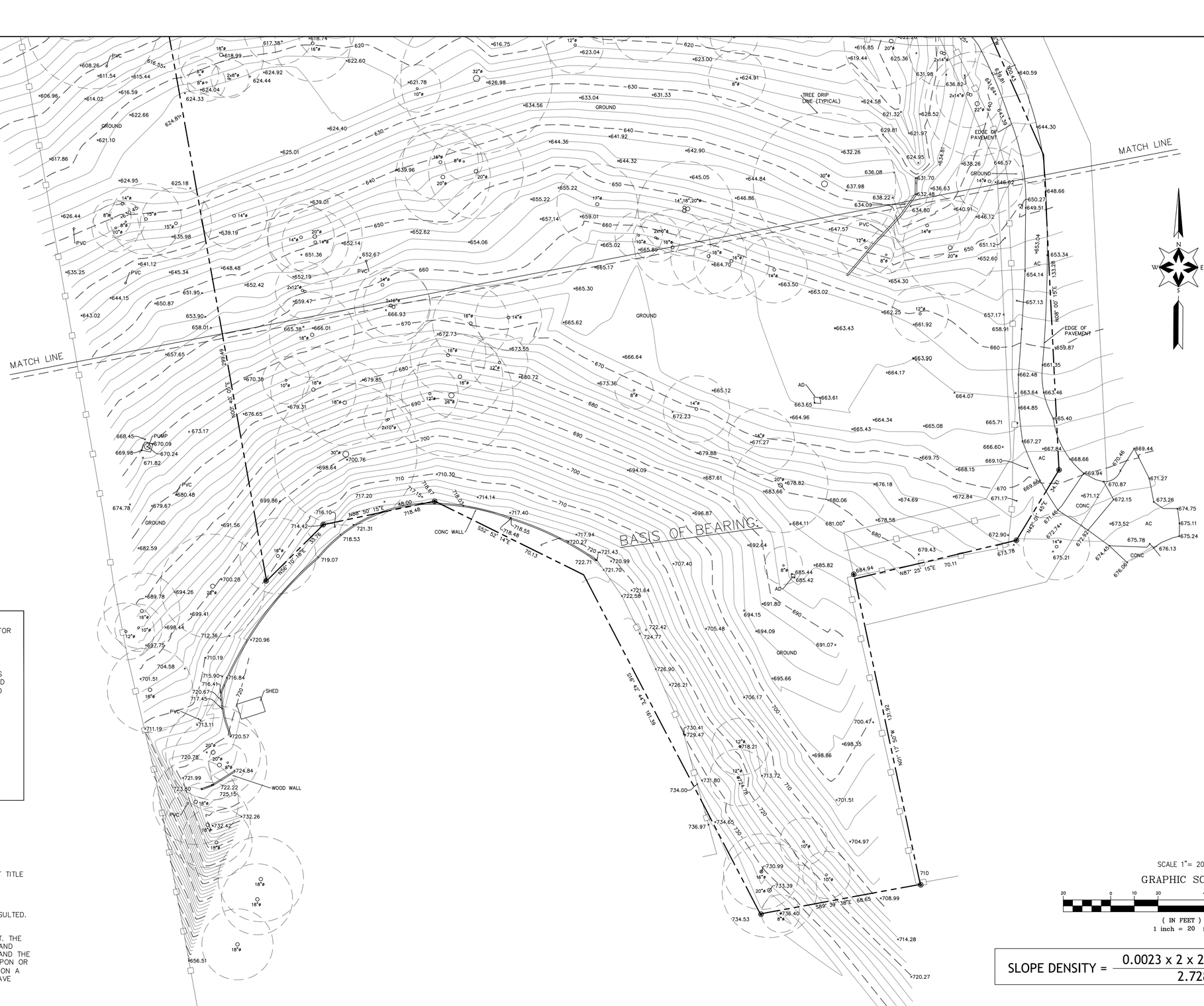
FOUND SURVEY MONUMENTS. RECORD INFORMATION WAS USED. PER RECORD MAP, BOOK: 742 PAGE: 7 WHICH IS FILED IN THE COUNTY OF SANTA CLARA RECORDER'S OFFICE.

SITE BENCHMARK:

SURVEY CONTROL SET MAG NAIL ELEVATION=566.57 (TOWN OF LOS GATOS BANCHMARK)

NOTES:

1. ALL DIMENSIONS ARE GIVEN IN FEET AND DECIMALS THEREOF.
2. THE GROSS AREA OF LAND OF RECORD IS 118,816.11 SQ. FT. ±.
3. THE MAP WAS BASED ON A GRANT DEED DOC.# 24446095 BY STEWART TITLE CO. DATED 04/02/2020, RECORDED IN SANTA CLARA COUNTY.
4. ALL EXISTING BUILDINGS ARE WOOD.
5. FOR PRECISE SPECIES OF TREES A CERTIFIED ARBORIST SHALL BE CONSULTED.
6. THIS DRAWING REPRESENTS A TOPOGRAPHIC SURVEY PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF THE LAND SURVEYORS ACT. THE PROPERTY LINES SHOWN HEREON ARE COMPILED FROM RECORD DATA AND REPRESENT THE BEST GRAPHICAL FIT BETWEEN RECORD INFORMATION AND THE TOPOGRAPHICAL FEATURES SURVEYED AND SHOULD NOT BE RELIED UPON OR USED FOR ANY OTHER PURPOSES. PURSUANT TO THE CLIENT'S DIRECTION A BOUNDARY SURVEY WAS NOT PERFORMED AT THIS TIME WHICH MAY HAVE DETERMINED THE ACTUAL PROPERTY LINES.



SCALE 1"= 20'

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

$$\text{SLOPE DENSITY} = \frac{0.0023 \times 2 \times 25619}{2.728} = 43.20\%$$

200 HAPPY ACRES RD.
LOS GATOS, CA 95032
APN: 537-24-030

SMP ENGINEERS
CIVIL ENGINEERS—LAND SURVEYORS
1534 Carob Lane Los Altos, CA 94024
Tel. (650) 941-8055 Fax (650) 941-8755

Scale: 1" = 20'
Prepared by: J.N.
Checked by: S.R.
Date: 02/28/2024
Project No: 220062

PRELIMINARY BOUNDARY AND TOPOGRAPHIC SURVEY MAP

Sheet No: T1-2

	REVISIONS	DESIGN BY	DESIGN DATE	CITY APPR.	APPR. DATE

CITY OF LOS GATOS