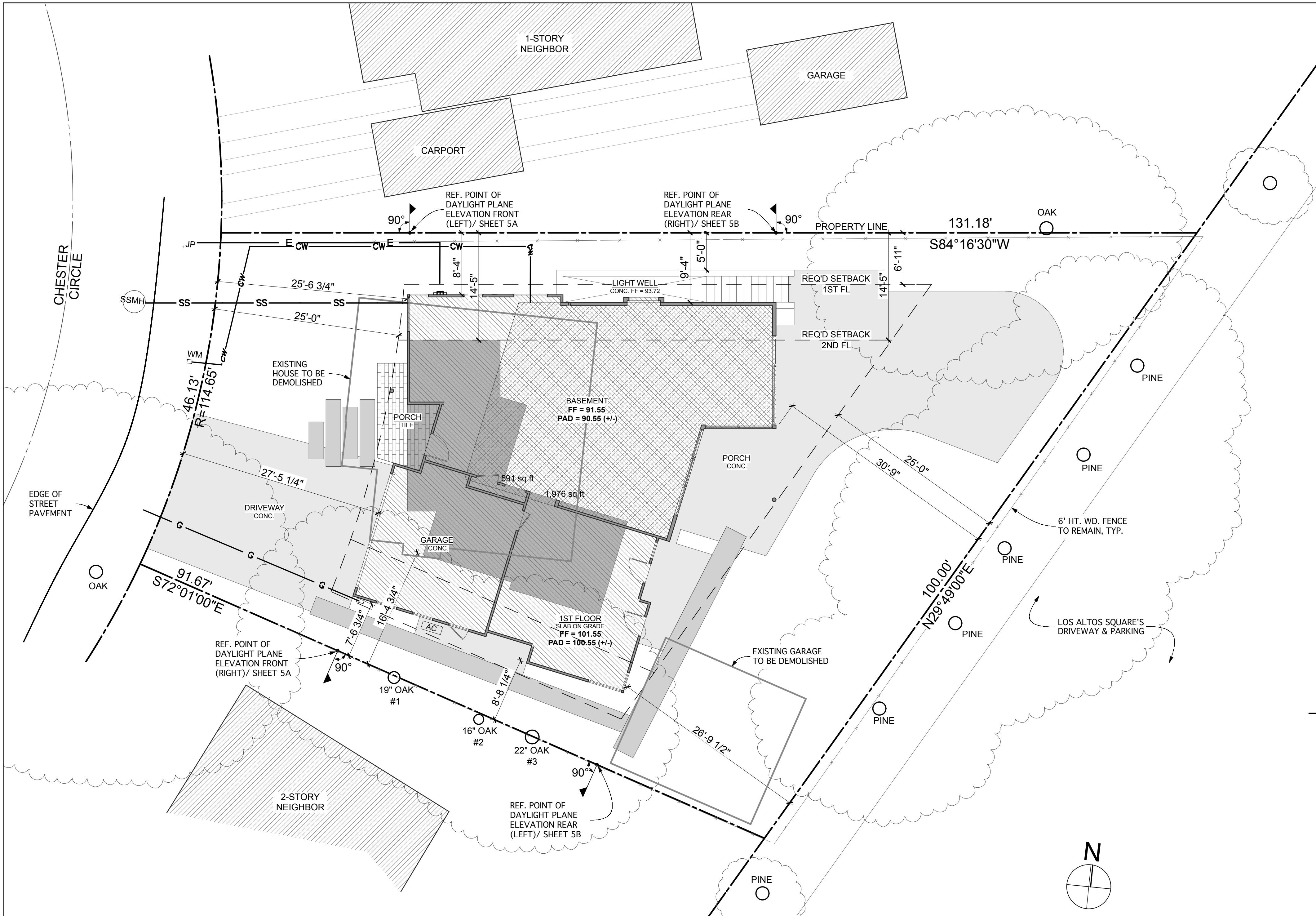


REQUIRED SETBACK



SITE PLAN

PROJECT DATA

NET LOT AREA:	7,334.7 square feet		
	Existing	Change in	Total Proposed
% OF FRONT YARD PAVING	N/A	N/A	654 square feet (43 %)
HABITABLE LIVING AREA (INCLUDING HABITABLE BASEMENT AREA:	969 square feet	2,209 square feet	3,178 square feet
NON-HABITABLE AREA:	378 square feet	(-) 28 square feet	350 square feet

	Existing	Proposed	Allowed/Required
LOT COVERAGE: (Land area covered by all structures that are over 6 feet in height)	1,347 square feet (18 %)	2,108.7 square feet (28.7%)	2,200 square feet (30 %)
FLOOR AREA:			
First floor	1,347 square feet	1,976 square feet	
Second floor	- square feet	591 square feet	
Total	1,347 square feet (18 %)	2,567 square feet (35 %)	2,567 square feet (35 %)
SETBACKS:			
Front	19.1 feet	25.6 feet	25 feet
Rear	42.8 feet	26.8 feet	25 feet
Right side (1st/2nd)	15.3 feet / - feet	7.6 feet / 16.4 feet	6.9 feet / 14.4 feet
Left side (1st/2nd)	8.7 feet / - feet	8.3 feet / 14.4 feet	6.9 feet / 14.4 feet
HEIGHT:	15.5 feet	22 feet	27 feet

SHEET INDEX

- 1 SITE PLAN & PROJECT DATA
- 2A 1ST FLOOR PLAN & BASEMENT
- 2B 2ND FLOOR PLAN & ROOF PLAN
- 2C AREA CALCULATIONS
- 5A ELEVATIONS
- 5B ELEVATIONS
- 6 SECTIONS
- C1 GRADING & DRAINAGE NOTES & DETAILS
- C2 GRADING & DRAINAGE PLAN
- L LANDSCAPE PLAN & TREE PROTECTION

PROJECT TEAM

OWNER
LI-ZEN TING &
CHII-LUH (CAROLINE) CHEN
T: (650) 888-6286
eting@yahoo.com

ARCHITECT
CHII-LUH (CAROLINE) CHEN
718 TERRACE COURT
LOS ALTOS, CA 94024
T: (650) 996-0622
chiluh@yahoo.com

LANDSCAPE ARCHITECT
ALEKSANDRA DUDUKOVIC
T: (510) 610-1974
aduducovic@gmail.com

SURVEYOR & CIVIL ENGINEER
SCOTT HOFFMAN
BAY LAND CONSULTING
2005 DE LA CRUZ BLVD., #165
SANTA CLARA, CA 95050
T: (408) 296-6000
F: (408) 404-5579
scott@ah-land.com

SOIL ENGINEER
DAN DYCKMAN
GEOFORENSICS
561 PILGRIM DRIVE, #D
FOSTER CITY, CA 94404
T: (650) 349-3369
F: (650) 571-1878
dan.geoforensics@yahoo.com

SITE PLAN LEGEND

- PROPERTY LINE
- SETBACK LINE
- EXISTING WOOD FENCE TO REMAIN
- DRIP LINE
- E NEW UNDERGROUND ELECTRICAL TO EXISTING POLE
- CW NEW WATER LINE TO EXISTING METER
- SS NEW SANITARY SEWER LINE
- G NEW GAS LINE
- PROPOSED 1ST FLOOR
- PROPOSED BASEMENT
- PROPOSED 2ND FLOOR
- CONCRETE, COLOR LIGHT GREY
- CONCRETE, COLOR DARK GREY

REVISIONS

Design Review Submittal 9/5/13

Design Review Submittal 10/22/13

CHII-LUH (CAROLINE) CHEN
ARCHITECT
718 TERRACE CT
LOS ALTOS, CA 94024
650.996.0622
chiluh@yahoo.com

TING RESIDENCE: NEW SINGLE FAMILY HOME

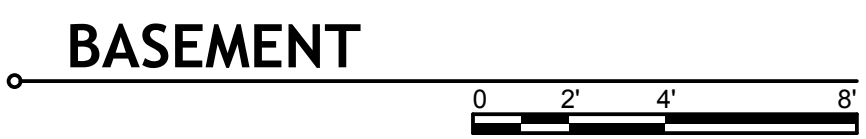
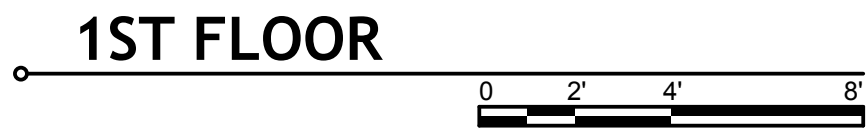
64 CHESTER CIRCLE, LOS ALTOS, CA 94022


SITE PLAN & PROJECT DATA

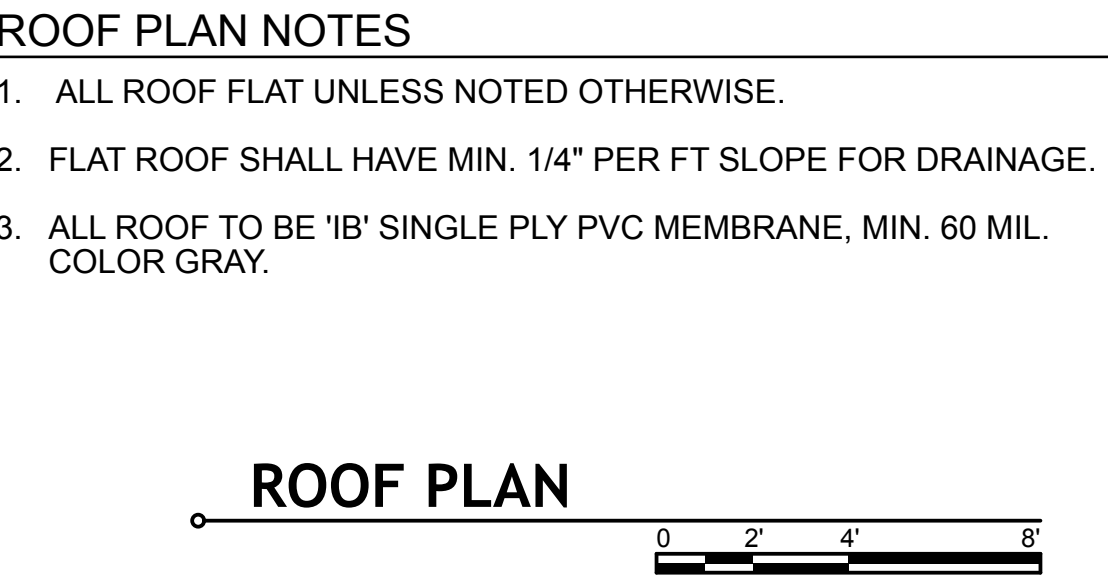
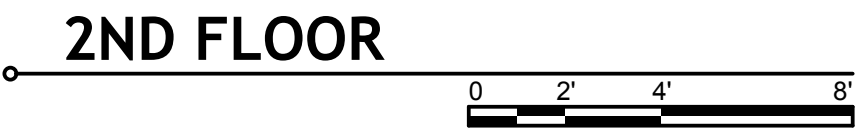
PRINT DATE: 10/22/13

SHEET

1



REVISIONS	
Design Review Submittal	9/5/13
Design Review Submittal	10/22/13
	
CHII-LUH (CAROLINE) CHEN ARCHITECT 718 TERRACE CT LOS ALTOS, CA 94024 650.996.0622 chiiLUH@yahoo.com	
TING RESIDENCE: NEW SINGLE FAMILY HOME 64 CHESTER CIRCLE, LOS ALTOS, CA 94022	
1ST FLOOR PLAN & BASEMENT	
PRINT DATE: 10/22/13	
SHEET	
2A	



2ND FLOOR PLAN & ROOF PLAN

TING RESIDENCE: NEW SINGLE FAMILY HOME

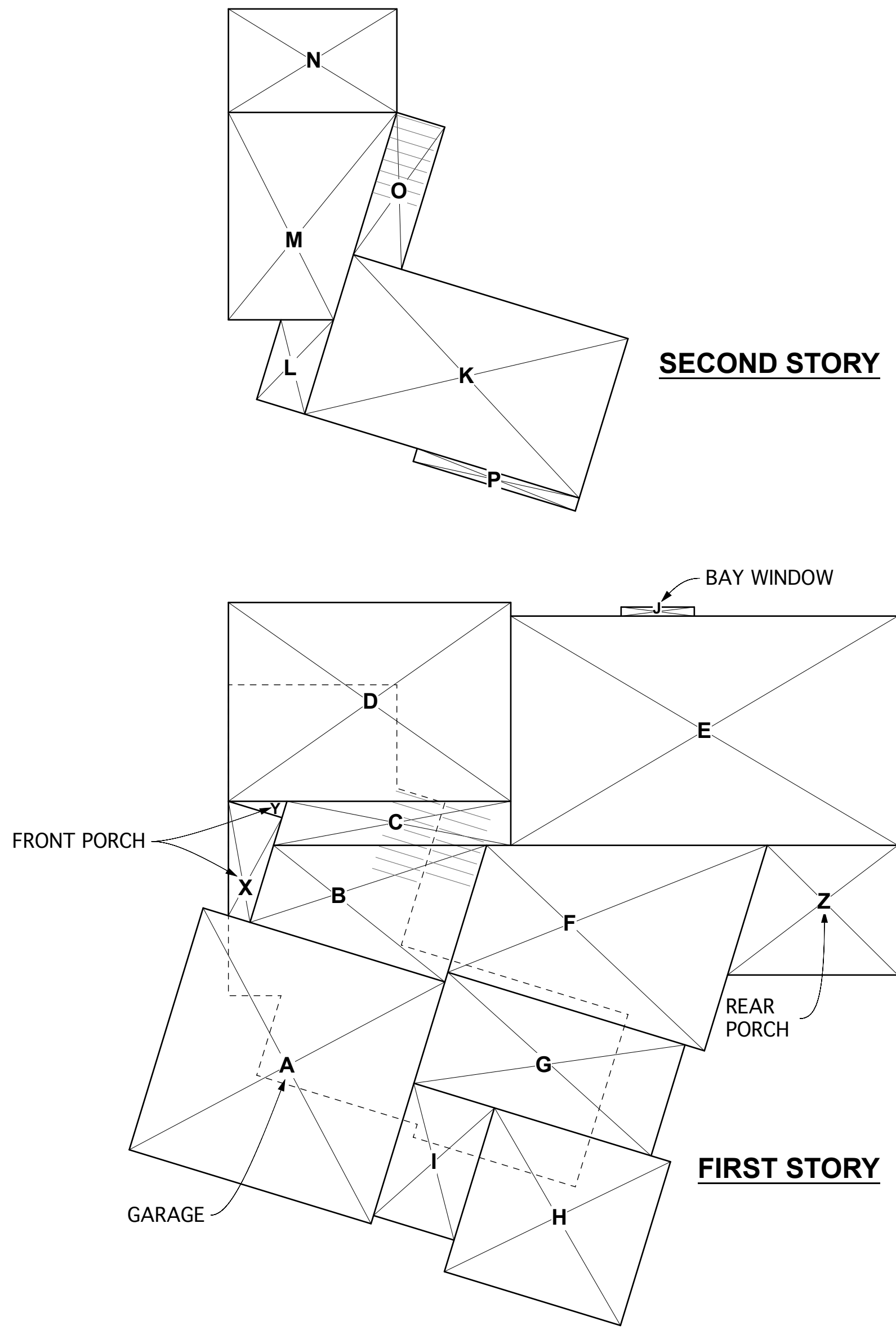
64 CHESTER CIRCLE, LOS ALTOS, CA 94022

CHIH-LUH (CAROLINE) CHEN
 ARCHITECT
 718 TERRACE CT
 LOS ALTOS, CA 94024
 650.996.0622
 chihluh@yahoo.com

PRINT DATE: 10/22/13

SHEET

2B



FLOOR AREA COVERAGE CALCULATIONS

Section	Dimensions	Area
A	18' 8 1/2" x 18' 8 1/2"	350.0 sq. ft.
B	[(5' 11 1/2"+ 10' 7")/2] x 15' 1"	124.8 sq. ft.
C	[(16' 6 3/4" + 17' 6 3/4")/2] x 3' 3"	55.5 sq. ft.
D	20' 10 3/4" x 14' 8 1/2"	307.3 sq. ft.
E	28' 7 3/4" x 16' 11 1/2"	485.8 sq. ft.
F	[(9' 9 3/4" + 15' 10 3/4")/2] x 19' 10 1/4"	255.2 sq. ft.
G	18' 4 1/4" x 8' 7"	157.5 sq. ft.
H	13' 7 1/2" x 12' 8"	172.6 sq. ft.
I	6' 2 3/4" x 10' 2 3/4"	63.7 sq. ft.
J	5' 5" x 8"	3.6 sq. ft.
FIRST STORY SUBTOTAL=		1,976.0 sq. ft.
K	21' 3" x 12' 4"	262.1 sq. ft.
L	[(6' 2" + 7' 3 1/2")/2] x 3' 8 1/2"	25.0 sq. ft.
M	[(7' 9 1/4" + 12' 5 1/2")/2] x 15' 4"	155.1 sq. ft.
N	12' 5 1/2" x 7' 8"	95.5 sq. ft.
O	3' 8 1/2" x 11'	40.8 sq. ft.
P	12' 6 1/2" x 1'	12.5 sq. ft.
SECOND STORY SUBTOTAL=		591.0 sq. ft.

TOTAL FLOOR AREA=	2,567.0 sq. ft.
-------------------	-----------------

S	[(34' 7" + 39' 9")/2] x 16' 11 1/2"	630.2 sq. ft.
T	[(7' 1" + 15' 10 3/4")/2] x 28' 9 1/2"	327.8 sq. ft.
BASEMENT SUBTOTAL=		961.0 sq. ft.
X	[(1' 8"+ 4' 1 3/4")/2] x 8' 1"	23.5 sq. ft.
Y	(1' 3" x 4' 1 3/4")/2	2.6 sq. ft.
Z	[(9' 8" + 12' 7")/2] x 9' 7"	106.6 sq. ft.

COVERED PORCH SUBTOTAL= 132.7 sq. ft.

TOTAL SITE COVERAGE=	2,108.7 sq. ft.
----------------------	-----------------

AREA CALCULATIONS



REVISIONS

Design Review Submittal
9/5/13

Design Review Submittal
10/22/13

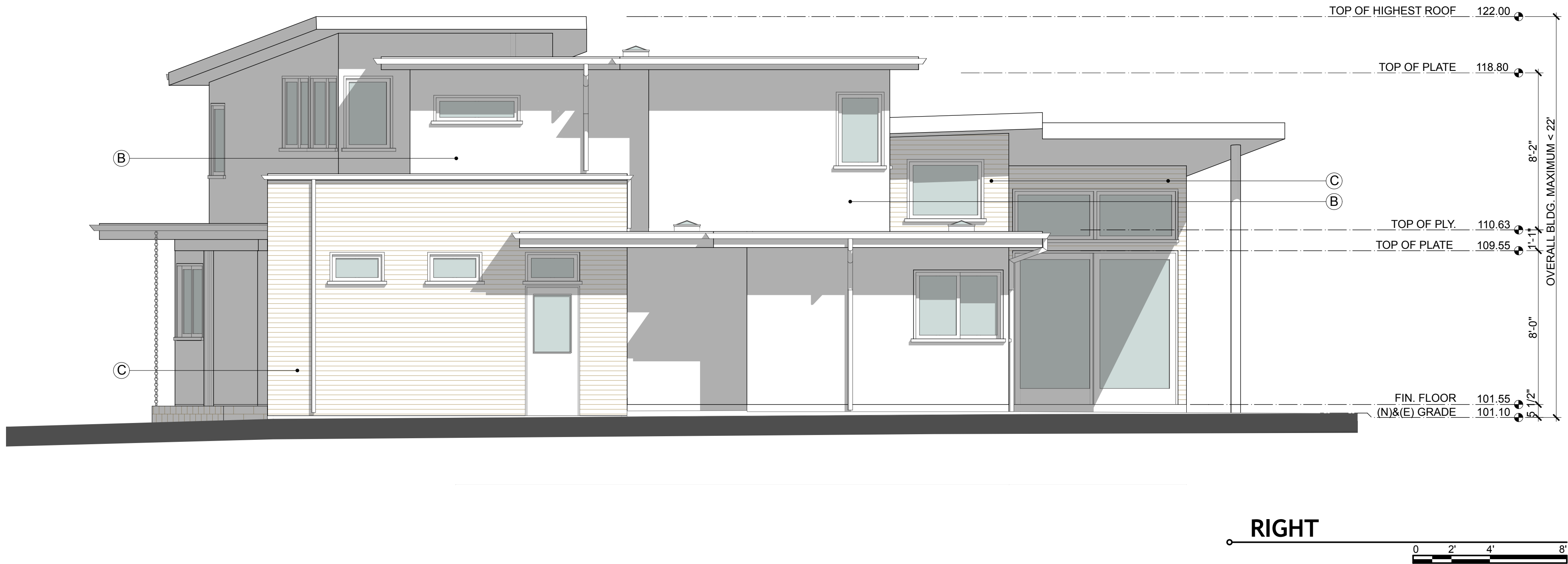
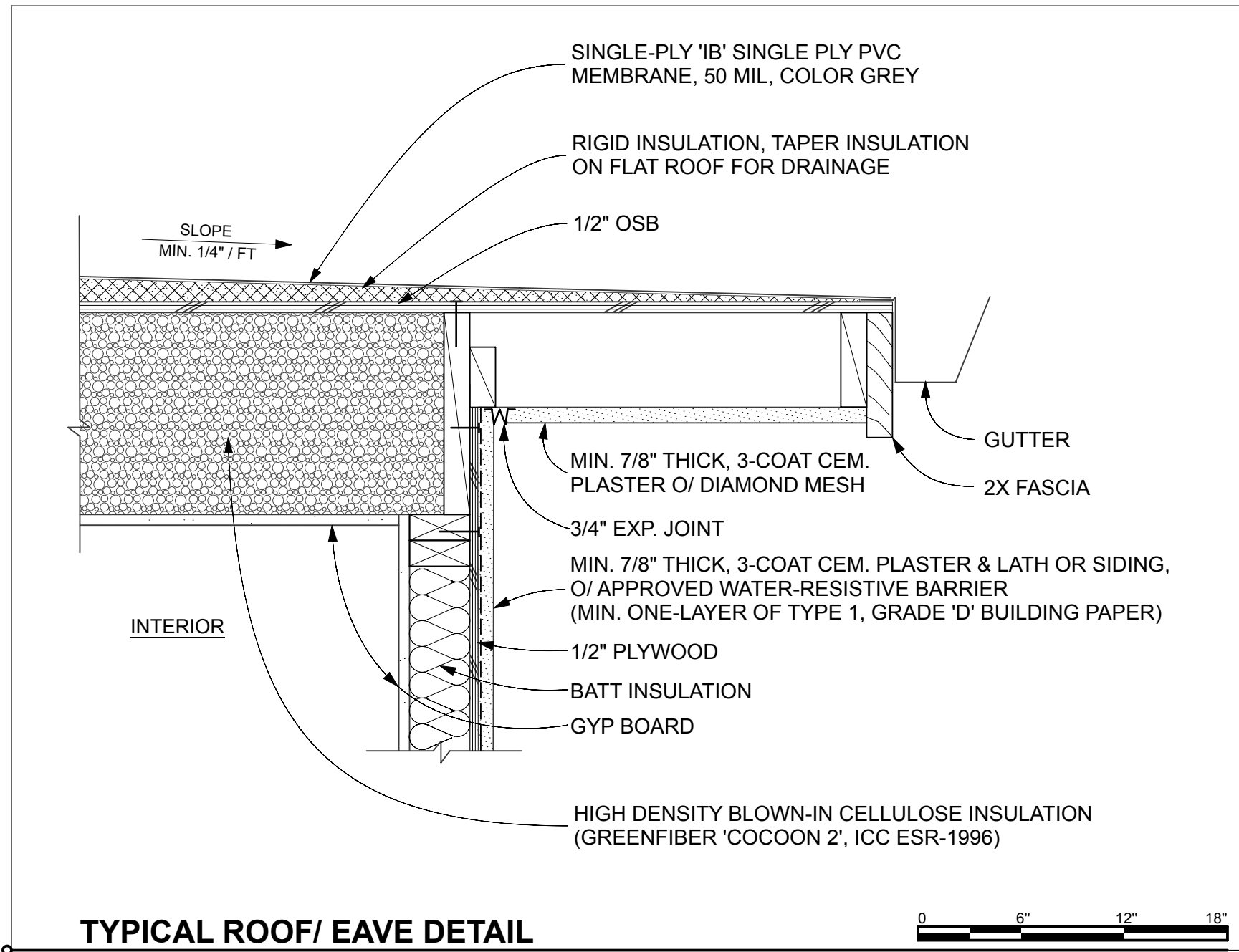
CHII-LUH (CAROLINE) CHEN
ARCHITECT
718 TERRACE CT
LOS ALTOS, CA 94024
650.996.0622
chiluh@yahoo.com

TING RESIDENCE: NEW SINGLE FAMILY HOME
64 CHESTER CIRCLE, LOS ALTOS, CA 94022

AREA CALCULATIONS

PRINT DATE: 10/22/13

SHEET



EXTERIOR FINISHES

EXTERIOR WALLS:

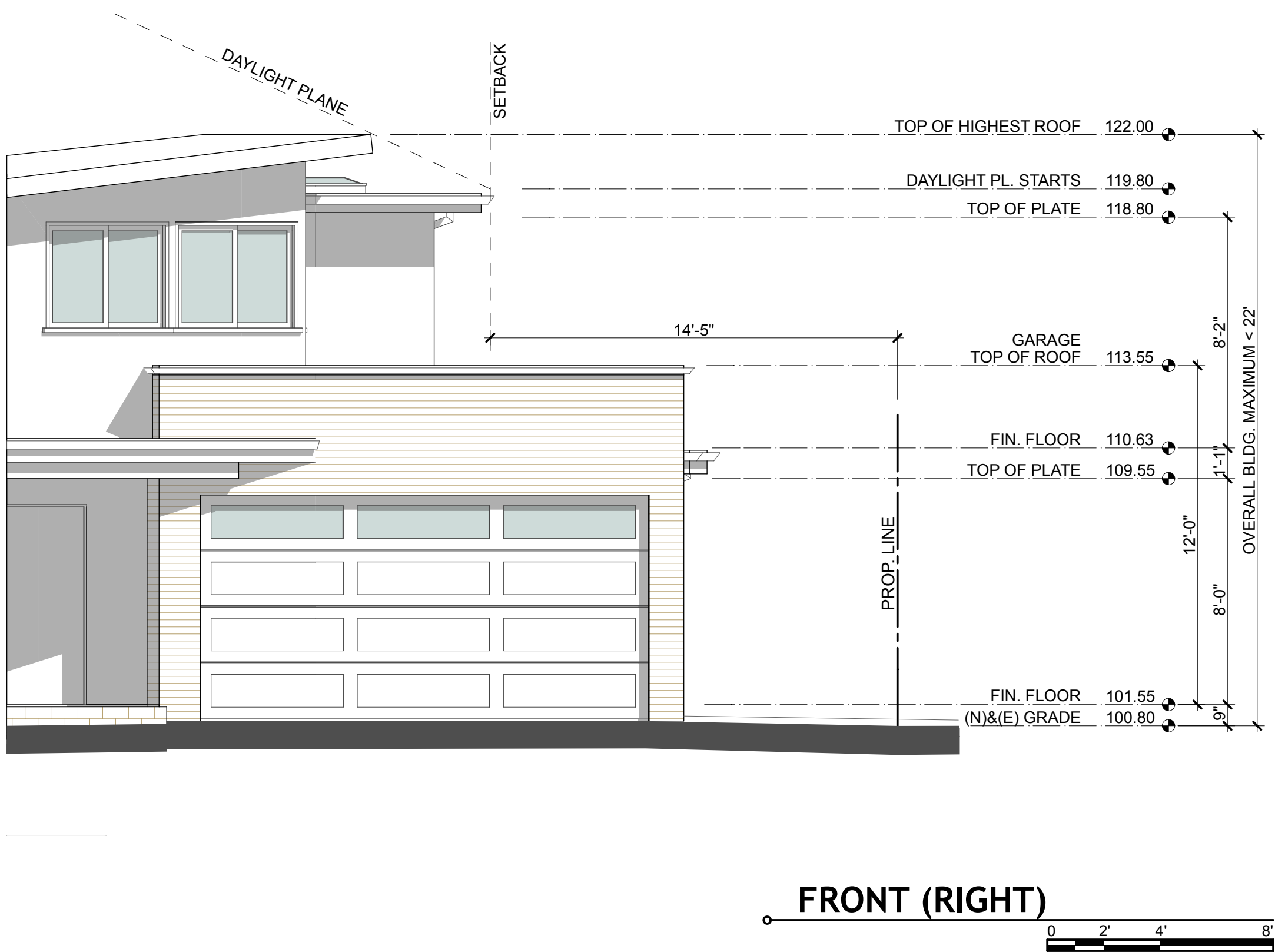
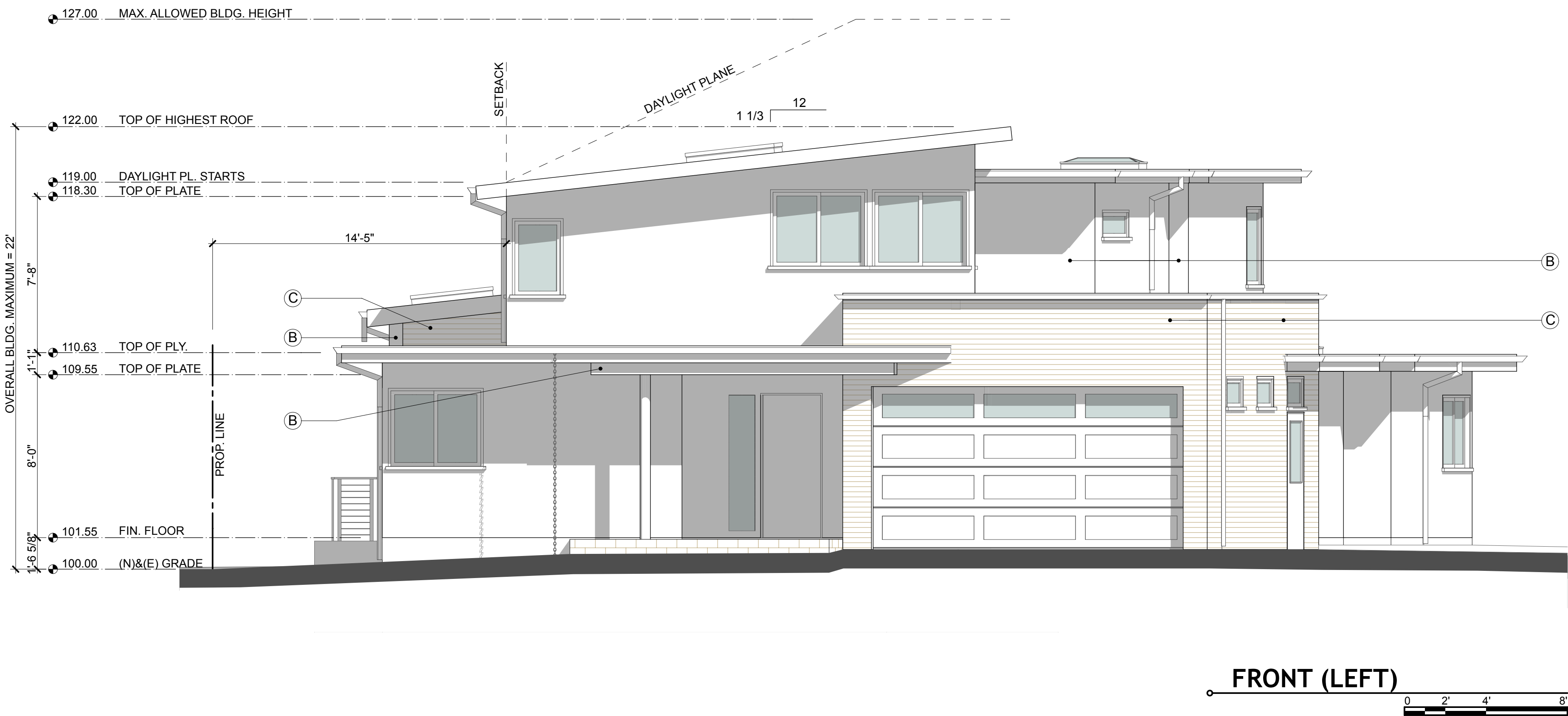
- (A) -STUCCO (3 COAT, W/ INTEGRAL COLOR)/ COLOR "A", TYPICAL FOR ALL EXTERIOR WALL FINISH U.N.O.
- (B) -STUCCO (3 COAT, W/ ACRYLIC FINISH)/ COLOR "B"
- (C) -HORIZONTAL REDWOOD SIDING, 5" W/ 1/8" V-GROOVE

WINDOWS: CLEAR ANODIZED ALUMINUM

ROOFING: "IB" PVC SINGLE PLY MEMBRANE, COLOR GRAY

FASCIA: PAINTED WOOD

SOFFITS: 3-COAT STUCCO W/ INTEGRAL COLOR (FOR ALL EAVE OVERHANG)



REVISIONS

Design Review Submittal	9/5/13
Design Review Submittal	10/22/13

CHII-LUH (CAROLINE) CHEN
ARCHITECT
718 TERRACE CT
LOS ALTOS, CA 94024
650.996.0622
chiluh@yahoo.com

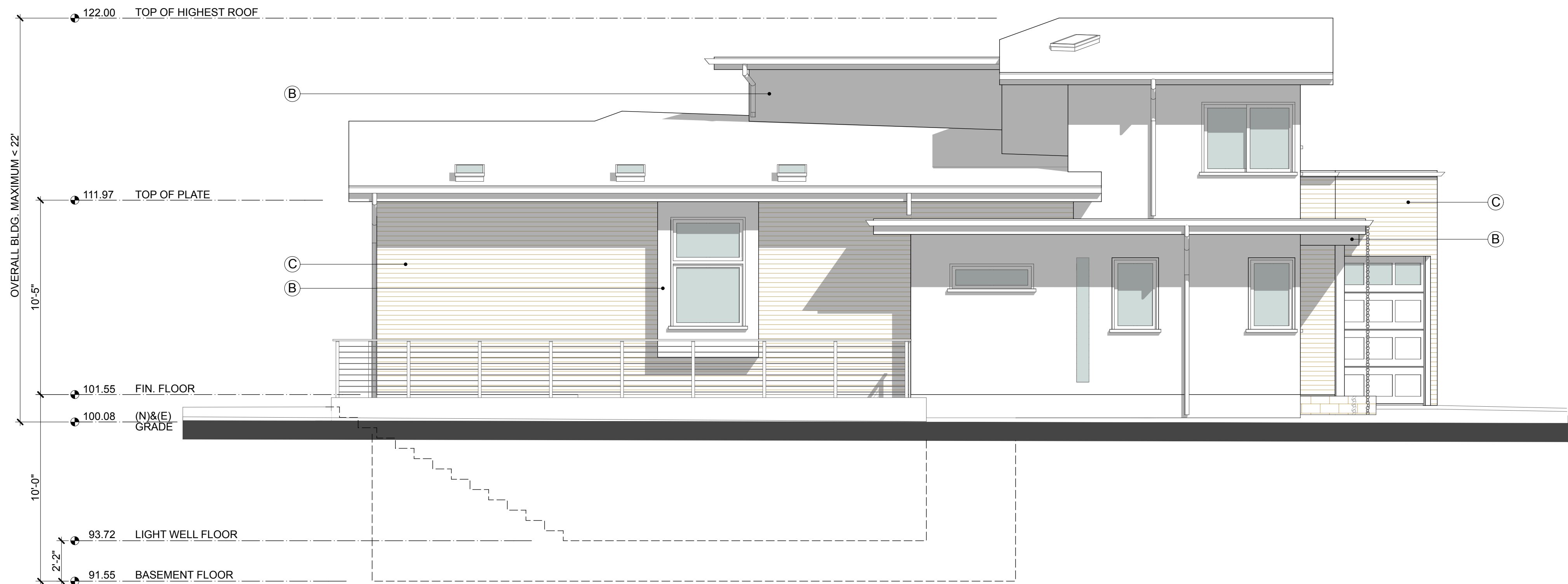
TING RESIDENCE: NEW SINGLE FAMILY HOME
64 CHESTER CIRCLE, LOS ALTOS, CA 94022

ELEVATIONS

PRINT DATE: 10/22/13

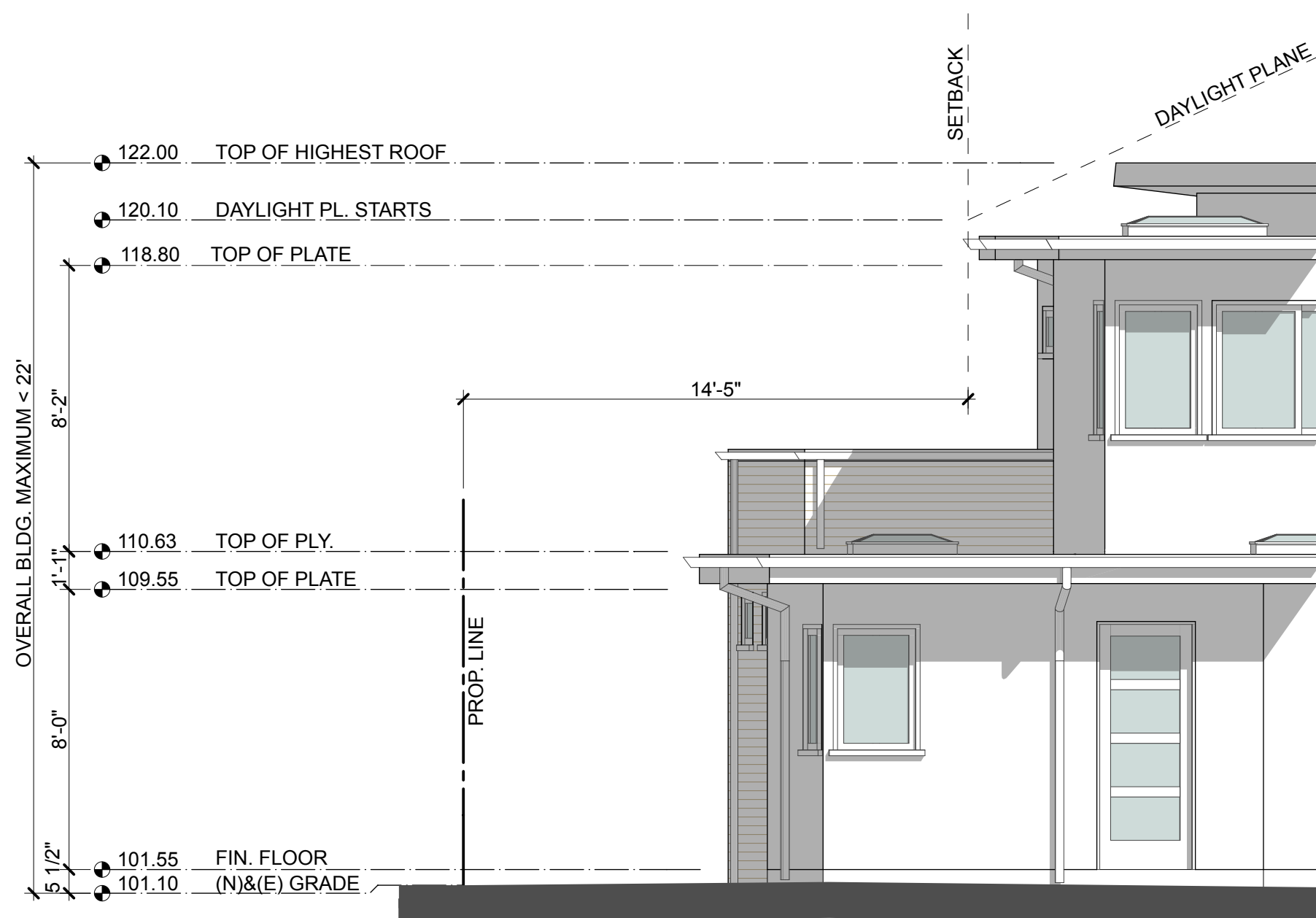
SHEET

5A



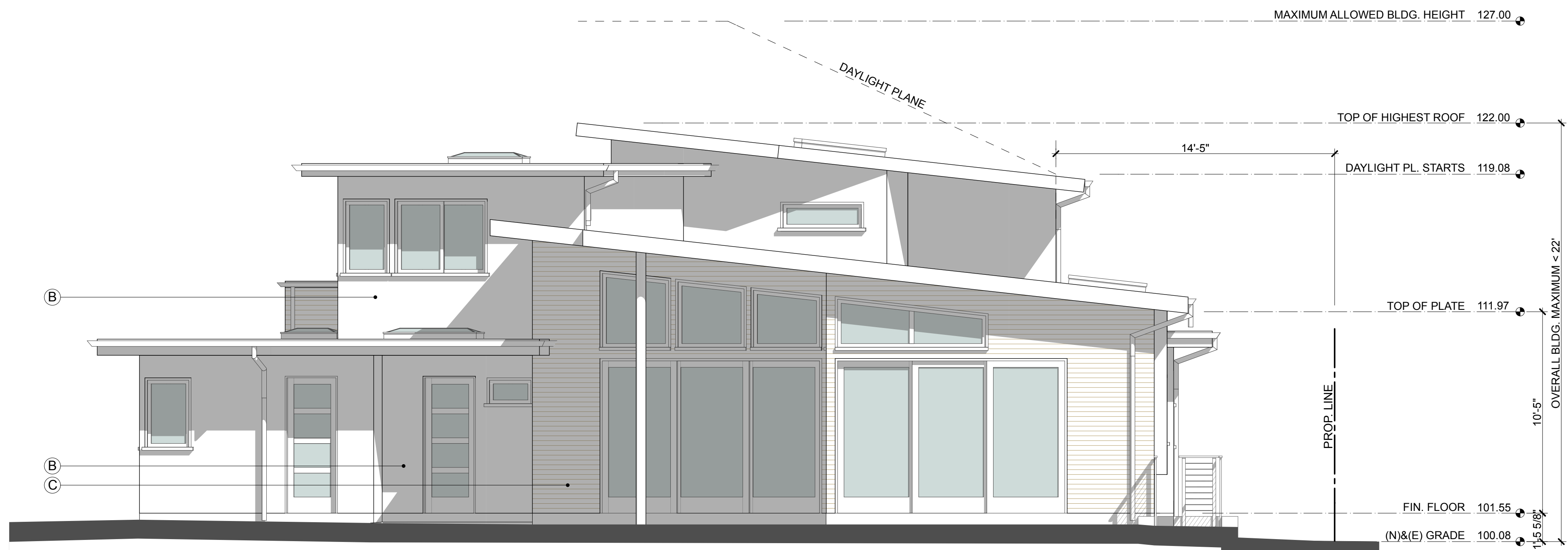
LEFT

0 2' 4' 8'



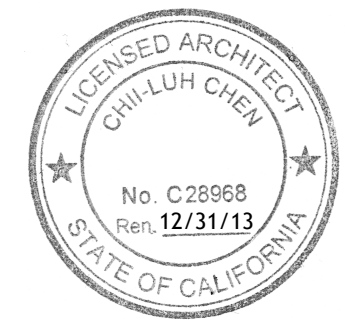
REAR (LEFT)

0 2' 4' 8'



REAR (RIGHT)

0 2' 4' 8'



CHII-LUH (CAROLINE) CHEN
ARCHITECT
718 TERRACE CT
LOS ALTOS, CA 94024
650.996.0622
chiluh@yahoo.com

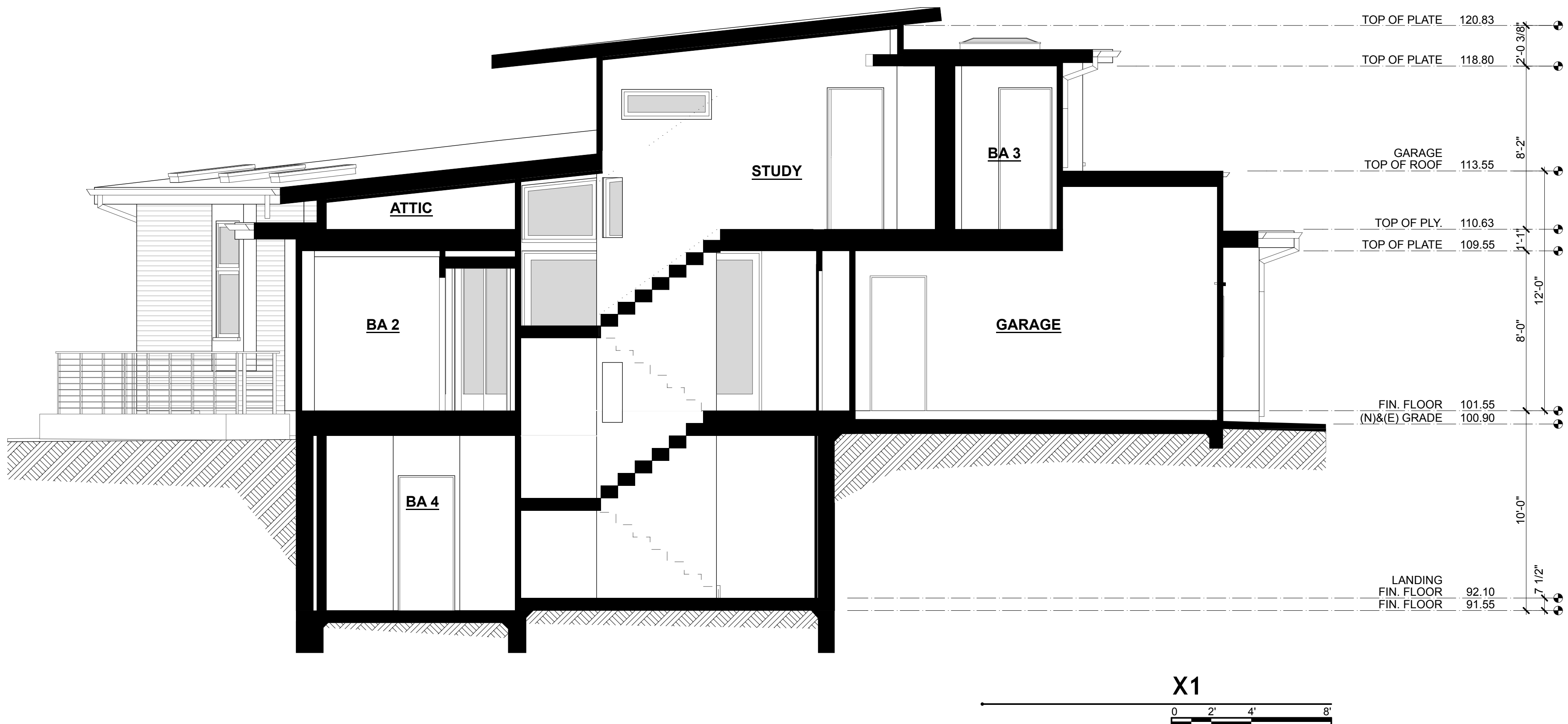
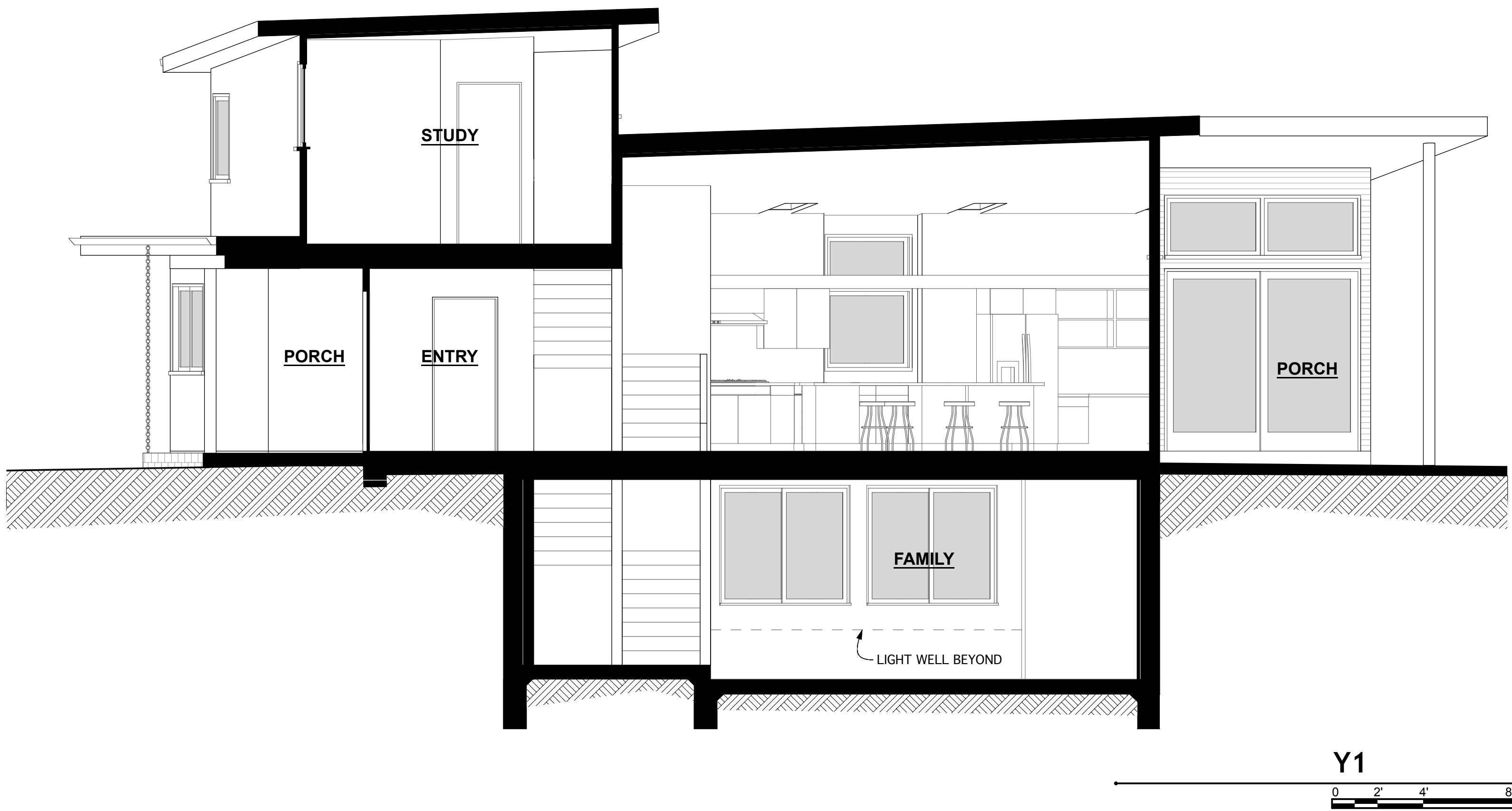
TING RESIDENCE: NEW SINGLE FAMILY HOME
64 CHESTER CIRCLE, LOS ALTOS, CA 94022

ELEVATIONS

PRINT DATE: 10/22/13

SHEET

5B



REVISIONS	
Design Review Submittal	9/5/13
Design Review Submittal	10/22/13
<div>LICENSED ARCHITECT CHII-LUH CHEN No. C28868 Exp. 12/31/13 STATE OF CALIFORNIA</div>	
<div>CHII-LUH (CAROLINE) CHEN ARCHITECT 718 TERRACE CT LOS ALTOS, CA 94024 650.996.0622 chiluh@yahoo.com</div>	
TING RESIDENCE: NEW SINGLE FAMILY HOME 64 CHESTER CIRCLE, LOS ALTOS, CA 94022	
SECTIONS	
PRINT DATE: 10/22/13	
SHEET	
6	

GENERAL NOTES

1.

ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE GENERAL AND SPECIFIC PROVISIONS, STANDARD DRAWINGS, AND REQUIREMENTS OF THE CITY OF LOS ALTOS.
2.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES WITH THE APPROPRIATE UTILITY AGENCIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY CONTACT UNDERGROUND SERVICE ALERT (USA) AT 800/642-2444.
3.

EXISTING UTILITIES SHOWN ARE BASED UPON RECORD INFORMATION AND ARE APPROXIMATE IN LOCATION AND DEPTH. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES THAT MAY BE AFFECTED BY NEW FACILITIES IN THIS CONTRACT. VERIFY ACTUAL LOCATION AND DEPTHS, AND REPORT POTENTIAL CONFLICTS TO THE ENGINEER PRIOR TO EXCAVATION FOR NEW FACILITIES.
4.

IT IS THE CONTRACTORS RESPONSIBILITY TO REPLACE ALL STREET MONUMENTS, LOT CORNER PIPES, AND GRADE STAKES DISTURBED DURING THE PROCESS OF CONSTRUCTION AT THE REGULAR ENGINEER'S FEE.
5.

PROVIDE CONCRETE PROTECTION BETWEEN UNDERGROUND PIPE CROSSINGS WITH 12" OR LESS VERTICAL CLEARANCE.
6.

ALL SURPLUS AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM PROJECT SITE AND FROM PUBLIC RIGHT-OF-WAY.
7.

CONTRACTOR SHALL PROVIDE ADEQUATE DUST CONTROL AND KEEP MUD AND DEBRIS OFF THE PUBLIC RIGHT-OF-WAY AT ALL TIMES.
8.

ALL TRENCHES AND EXCAVATIONS SHALL BE CONSTRUCTED IN STRICT COMPLIANCE WITH THE APPLICABLE SECTIONS OF CALIFORNIA AND FEDERAL O.S.H.A. REQUIREMENTS AND OTHER APPLICABLE SAFETY ORDINANCES. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
9.

GRADE BREAKS ON CURBS AND SIDEWALKS ARE TO BE ROUNDED OFF ON FORM WORK AND FINISHED SURFACING.
10.

CONTRACTOR SHALL PERFORM HIS/HER CONSTRUCTION AND OPERATION IN MANNER WHICH WILL NOT ALLOW HARMFUL POLLUTANTS TO ENTER THE STORM DRAIN SYSTEM. TO ENSURE COMPLIANCE, THE CONTRACTOR SHALL IMPLEMENT THE APPROPRIATE BEST MANAGEMENT PRACTICE (BMP) AS OUTLINED IN THE BROCHURES ENTITLED BEST MANAGEMENT PRACTICES FOR THE CONSTRUCTION INDUSTRY* ISSUED BY THE SANTA CLARA COUNTYWIDE STORM WATER POLLUTION PREVENTION PROGRAM, TO SUIT THE CONSTRUCTION SITE AND JOB CONDITION, THE CONTRACTOR SHALL PRESENT HIS PROPOSED BMP AT THE PRECONSTRUCTION MEETING FOR DISCUSSION AND APPROVAL.
11.

OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT IN THE STREET RIGHT-OF-WAY SHALL NOT BE PERMITTED, EXCEPT AT LOCATION(S) APPROVED BY THE CITY TRAFFIC ENGINEER.

GRADING NOTES

1.

DATE OF SURVEY: JANUARY 2012
2.

FINISHED GRADES ALONG THE PERIMETER OF THE FOUNDATION TO BE SLOPED AT A MINIMUM OF 2% FOR A MINIMUM OF 5 FEET.
3.

ALL CONCRETE SHALL BE CLASS "A" CONFORMING TO SECTION 90 OF CALTRANS SPECIFICATIONS AND SHALL DEVELOP A COMPRESSIVE STRENGTH OF 3,000 PSI AT 28 DAYS PER CALIFORNIA TEST METHOD NO. 521.
4.

ON-SITE UTILITY TRENCHES SHALL BE BACKFILLED WITH COMPACTED ENGINEERED FILL. THE FILL MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED EIGHT (8) INCHES IN UNCOMPACTED THICKNESS AND SHALL BE MECHANICALLY COMPACTED TO AT LEAST 90% RELATIVE COMPACTION.
5.

LOCATION OF TREES SHOWN HEREON ARE TAKEN AT A POINT THAT THE TREE ENTERS THE GROUND. SIZES OF TREES SHOWN HEREON ARE TAKEN AT DBH (DIAMETER AT BREAST HEIGHT)
6.

ALL UTILITIES SHALL BE UNDERGROUND FROM THE PROPERTY LINES IN. LOCATION OF METERS ARE AS NOTED. COORDINATE ALL SUCH WORK WITH THE UTILITY COMPANY HAVING JURISDICTION.
7.

CONTRACTOR SHALL BARRICADE AND PROTECT ALL EXISTING SITE FEATURES INCLUDING TREES, FENCES, GATES, UTILITIES, ETC.
8.

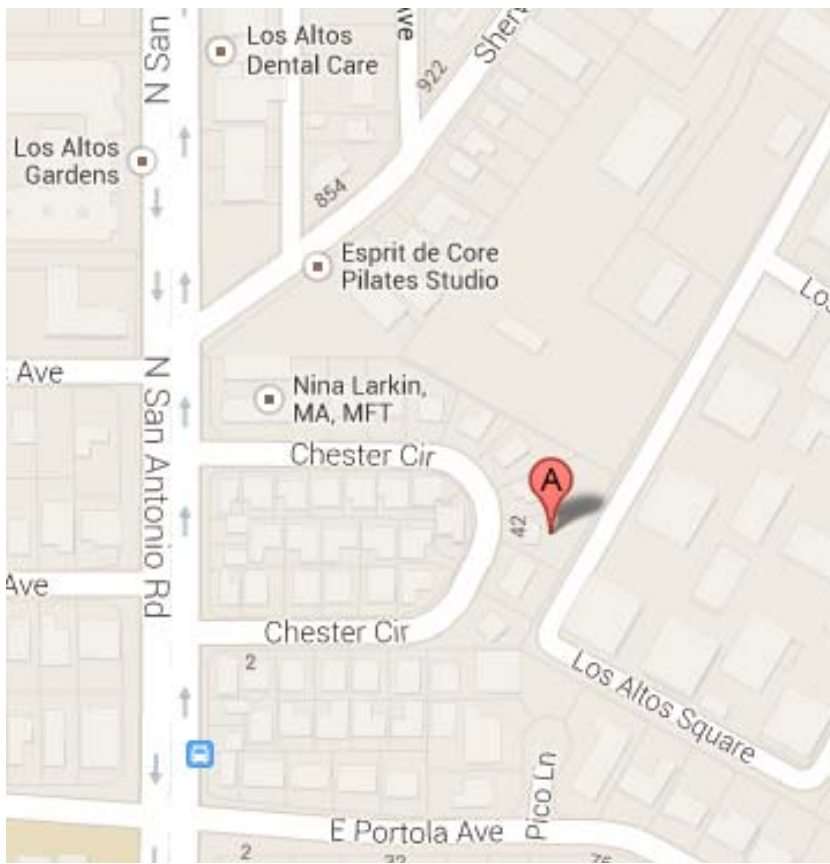
ALL ON-SITE STORM DRAINAGE AND SANITARY SEWER PIPE TO BE PVC SCHEDULE 40.

ABBREVIATIONS

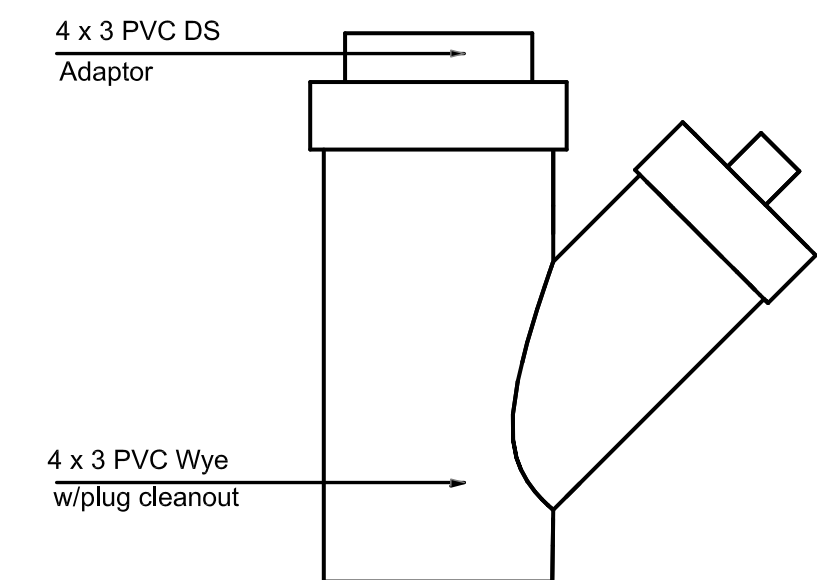
AB	AGGREGATE BASE	MH	MAN HOLE
AC	ASPHALT CONCRETE	MON	MONUMENT
APN	ASSESSORS PARCEL NUMBER	N	NEW
BLD	BUILDING	PL	PROPERTY LINE
CB	CATCH BASIN	PM	PARCEL MAP
CO	CLEAN OUT	PVMT	PAVEMENT
CONC	CONCRETE	RD	ROOF DRAIN
CP	CONTROL POINT	RIM	TOP OF GRADE
DS	DOWN SPOUT	SD	STORM DRAIN
DWY	DRIVEWAY	SDMH	STORM DRAIN MANHOLE
EX	EXISTING	SS	SANITARY SEWER
EM	ELECTRICAL METER	SSCO	SANITARY SEWER CLEANOUT
FC	FACE OF CURB	S/W	SIDEWALK
FF	FINISH FLOOR	TBM	TEMPORARY BENCH MARK
FG	FINISH GRADE	VG	VALLEY GUTTER
FH	FIRE HYDRANT	W	WATER
FS	FINISH SURFACE	WDF	WOOD FENCE
G	GAS/GROUND	WM	WATER METER
GM	GAS METER	WV	WATER VALVE
INV	PIPE INVERT		
JP	JOINT POLE		
LW	LIGHT WELL		

LEGEND

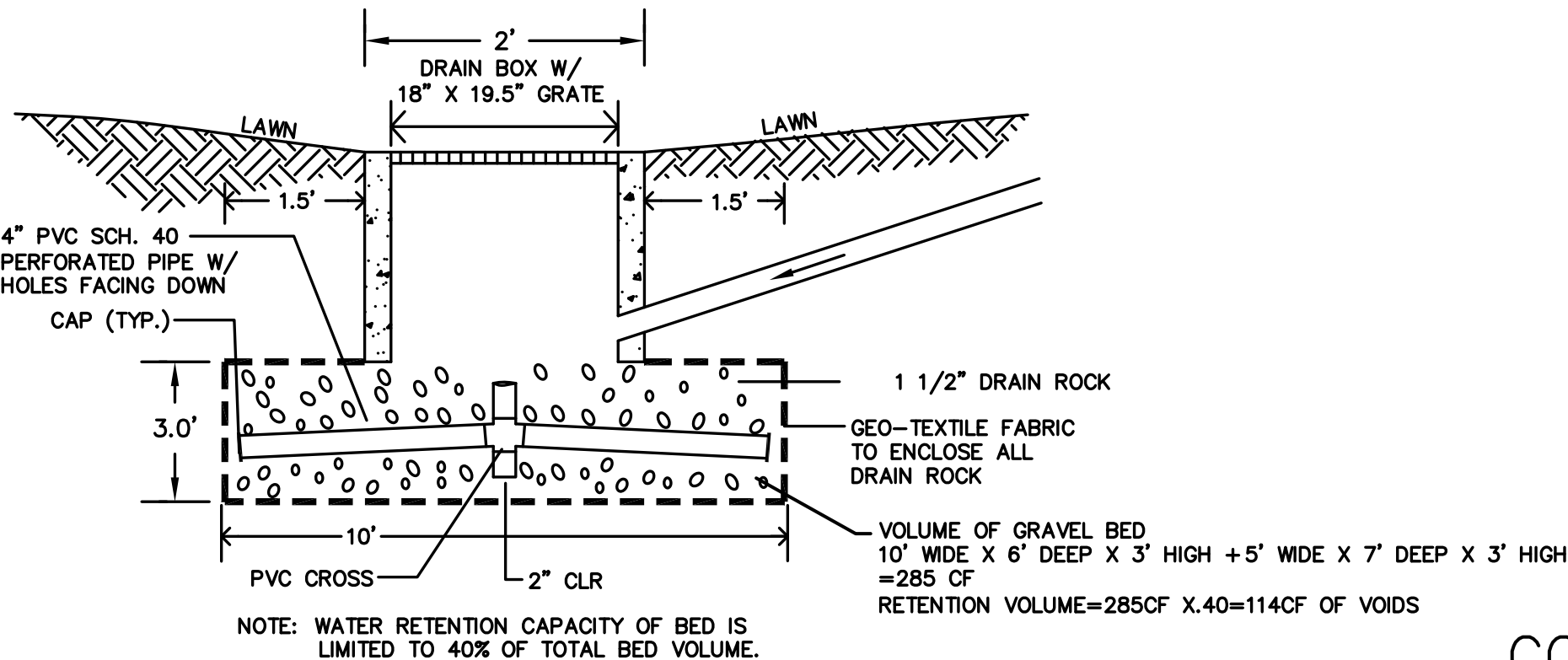
EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		CENTERLINE
		FENCE LINE
		STORM DRAIN
		SANITARY SEWER
		GAS
		WATER
		RIDGE
		VERTICAL CURB
		VERTICAL CURB AND GUTTER
		SEE DETAIL, SHT. C1
		SEE NOTE, SHT. C2
		DOWN SPOUT
		DOWN SPOUT WITH SPLASH BLOCK
		UTILITY BOX -AS NOTED
		CLEANOUT
		CATCH BASIN (CB)
		FIRE HYDRANT
		WATER VALVE
		SANITARY SEWER MANHOLE
		STORM DRAIN MANHOLE
		PAVEMENT
		TREE DRIP LINE



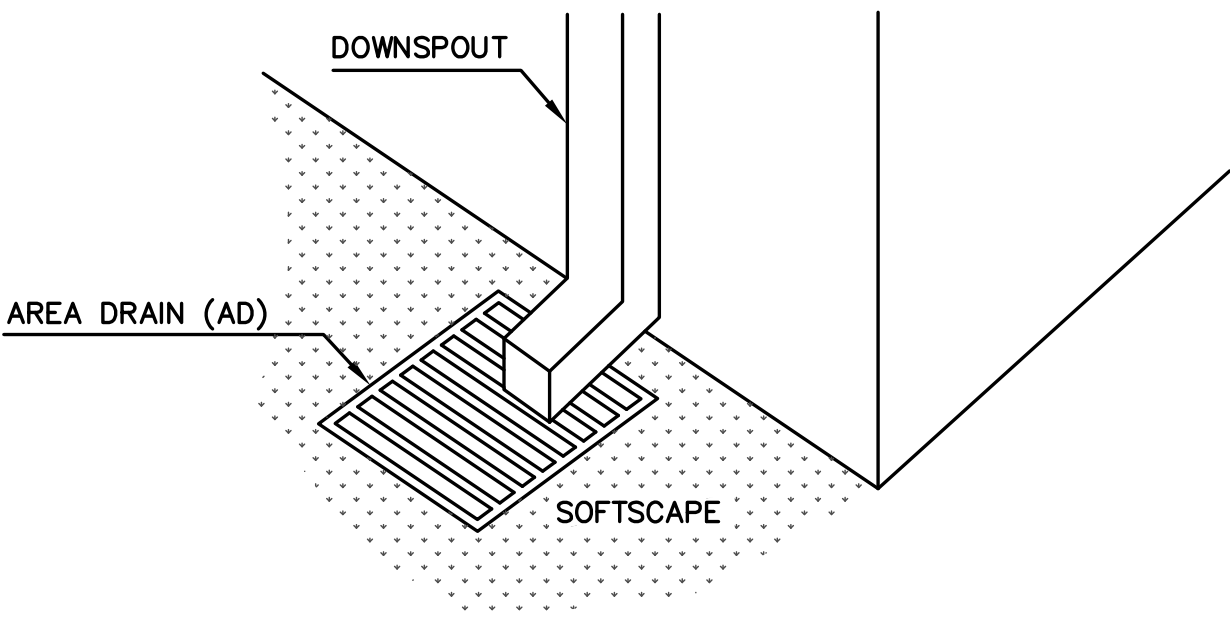
VICINITY MAP
N.T.S



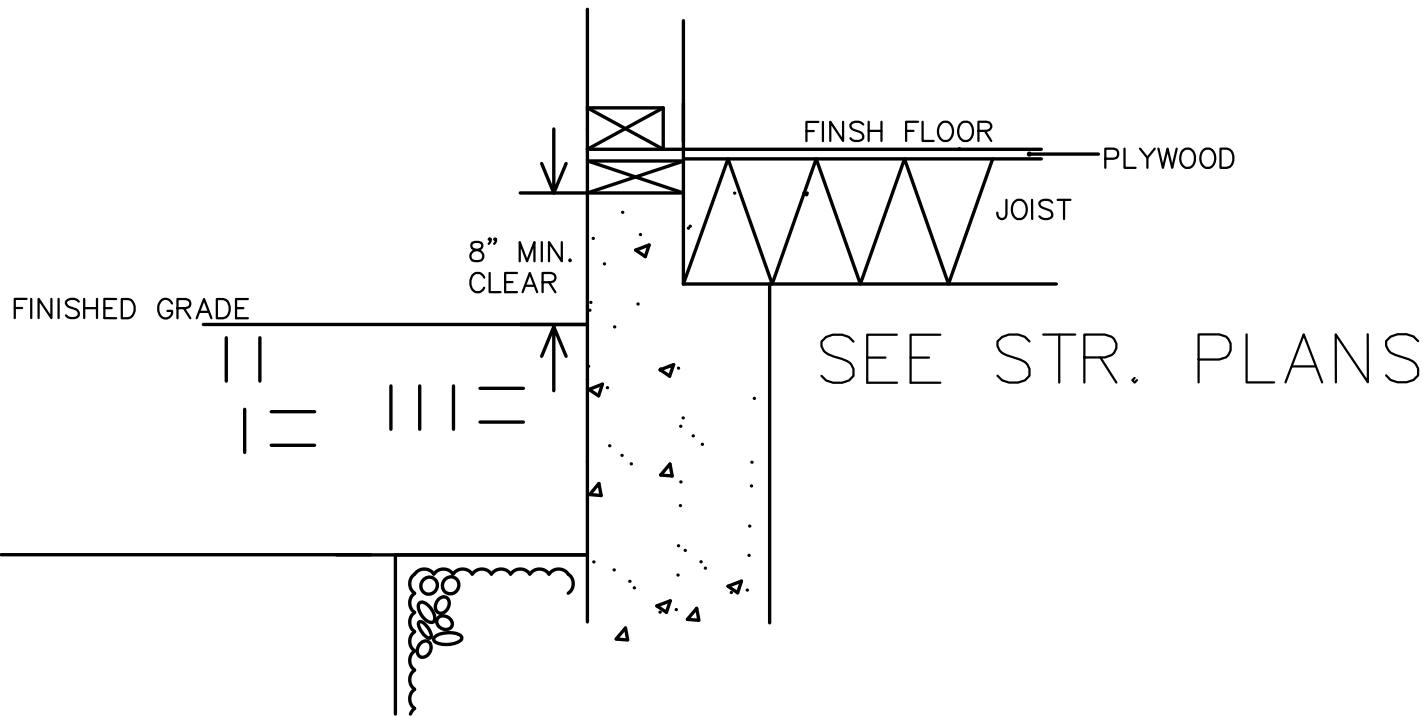
ON-SITE ONLY SCALE: N.T.S. 2



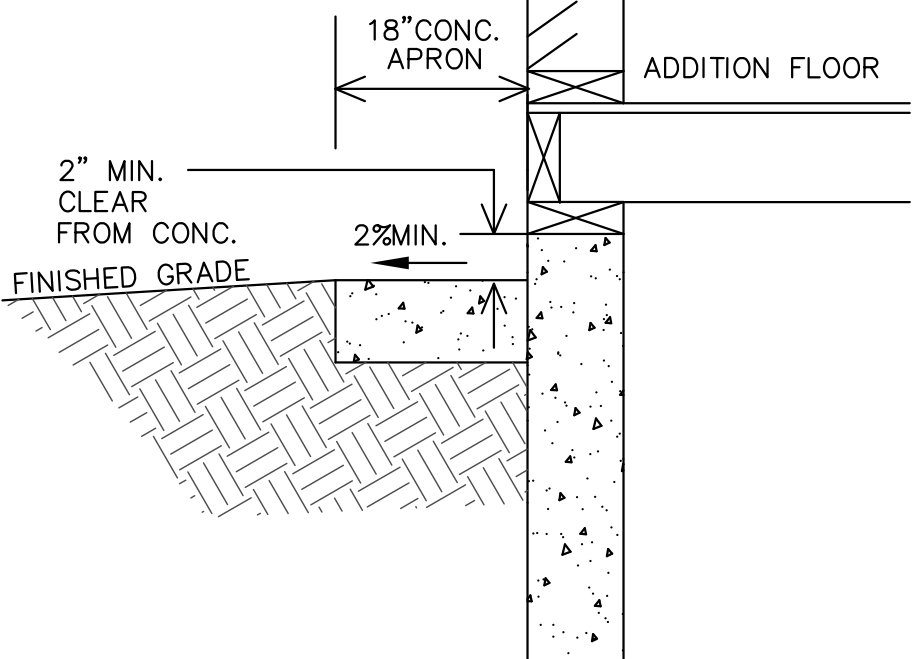
ON-SITE ONLY SCALE: NTS 1



ON-SITE ONLY 3



ON-SITE ONLY SCALE: NTS 4



ON-SITE ONLY SCALE: 1"=1' 5

CITY REQUIREMENTS FOR CERTIFICATES OF SURVEY BY A LICENSED CIVIL SURVEYOR OR CIVIL ENGINEER

1.

AT THE TIME OF FOUNDATION AND/ OR FOOTING PRE-POUR INSPECTION TO VERIFY BUILDING SETBACKS FROM PROPERTY LINES, BUILDING DIMENSIONS AND FINISHED FLOOR ELEVATION.
2.

AT ROOF NAIL TO VERIFY COMPLIANCE WITH THE DAYLIGHT PLANE, AVERAGE HEIGHT AND TOTAL HEIGHT BASED ON THE JOB SITE PLANS AND SPECIFICATIONS.
3.

AT FINAL INSPECTION TO VERIFY COMPLIANCE WITH GRADING AND DRAINAGE PLAN.

UNDERGROUND UTILITY NOTES

1.

CONTRACTOR SHALL CONTACT U.S.A. AT LEAST 48 HOURS PRIOR TO EXCAVATING IN ANY AREA WHERE UNDERGROUND FACILITIES ARE LOCATED. PHONE (800)642-2444.
2.

THE EXISTENCE, LOCATION AND ELEVATION OF ANY UNDERGROUND UTILITIES ARE SHOWN IN A GENERAL WAY ONLY. IT WILL BE THE RESPONSIBILITY AND DUTY OF THE CONTRACTOR TO MAKE FINAL DETERMINATIONS AS TO THE EXISTENCE, LOCATION AND ELEVATION OF ALL UTILITIES.

FOR PLAN CHECK ONLY

These plans are for "plan check only" and as such the State of California Business and Professional Code, Professional Engineers Act Section 6735(a) does not require the plans to be wet stamped and signed. These plans are not final until they are approved for permit at which time they will be wet stamped and signed.

SHEET INDEX

SHEET C1 NOTES & DETAILS

SHEET C2 GRADING & DRAINAGE PLAN

PRELIMINARY

GRADING & DRAINAGE
NOTES & DETAILS
64 CHESTER CIRCLE
LOS ALTOS, CA 94022
APN 170-01-003

BAY LAND CONSULTING
LAND SURVEYORS/CIVIL ENGINEERS
2005 De La Cruz Boulevard, Suite 165
Santa Clara, California 95050
Ph: (408) 298-6000 FAX: (408) 404-5579
EMAIL: Surveyor@baylandconsulting.com
SERVING THE BAY AREA

REVISIONS

DATE	DESCRIPTION
Δ	
Δ	
Δ	
Δ	

SHEET

C1

OF 2 SHEET

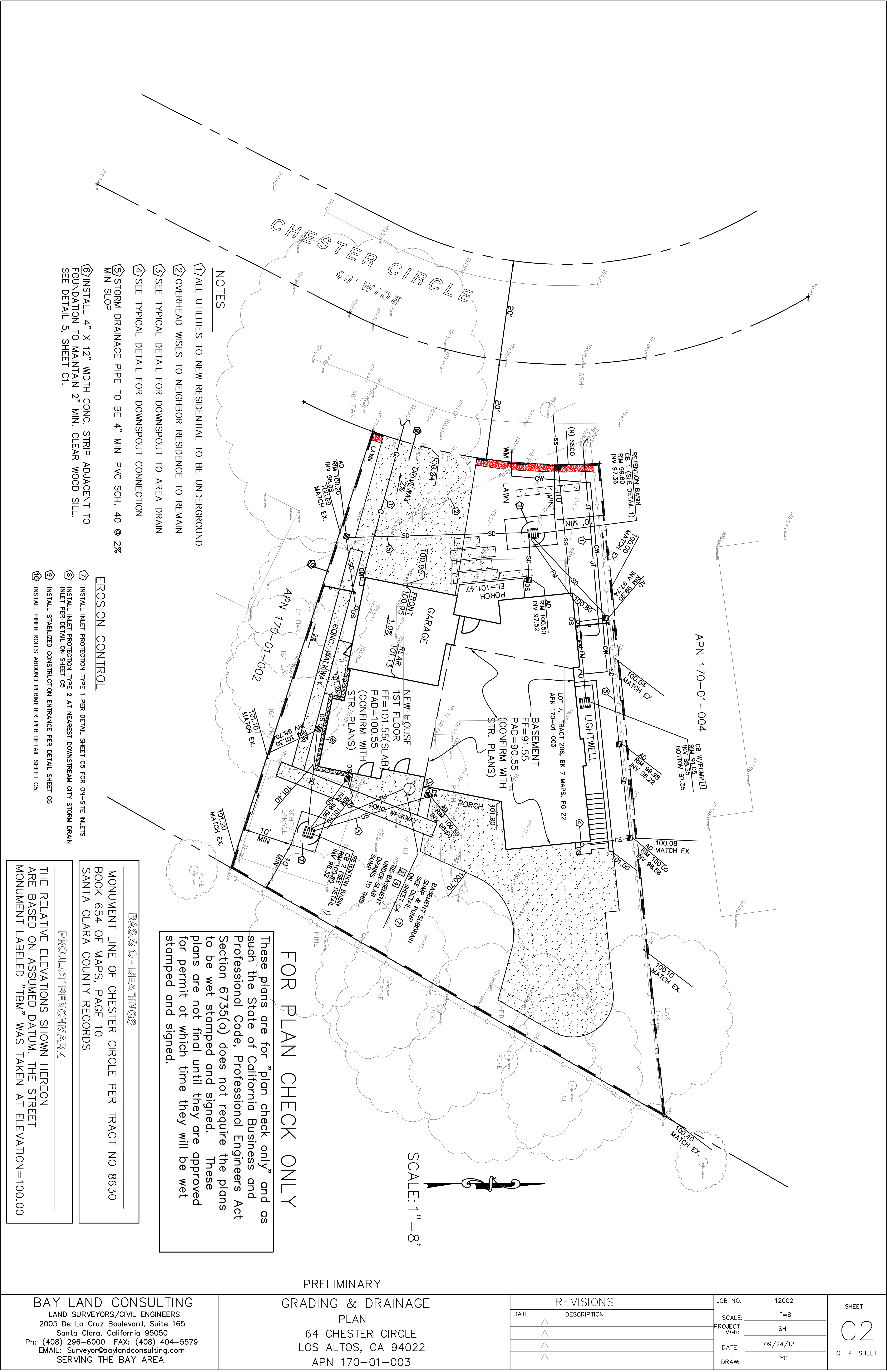
JOB NO. 12002

SCALE: N.T.S

PROJECT SH

DATE: 09/04/13

DRAW: YC



<div>BAY LAND CONSULTING</div> <div>LAND SURVEYORS/CIVIL ENGINEERS</div> <div>2005 De La Cruz Boulevard, Suite 165</div> <div>Santa Clara, California 95050</div> <div>Ph: (408) 296-6000 FAX: (408) 404-5579</div> <div>EMAIL: Surveyor@baylandconsulting.com</div> <div>SERVING THE BAY AREA</div>	<div>GRADING & DRAINAGE</div> <div>PLAN</div> <div>64 CHESTER CIRCLE</div> <div>LOS ALTOS, CA 94022</div> <div>APN 170-01-003</div>	REVISIONS		JOB NO.	12002	<div>SHEET</div> <div>C2</div> <div>OF 4 SHEET</div>
		DATE	DESCRIPTION	SCALE:	1"=8'	
		△		PROJECT MGR:	SH	
		△		DATE:	09/24/13	
		△		DRAW:	YC	

Tree Description Table
Created by Scott Araki, Tree Specialist, Inc.

Table includes Tree Number (corresponding to Previous Page site plan), Species name, Diameter at Standard Height, Canopy height, Canopy Width, Suitability of Preservation Rating, and General Description of tree condition

Tree #	Species	D.B.H.	Canopy Height	Canopy Width	Preservation Suitability	Description
1	Coastal Live Oak	19"	25'	10'	Good	Poor
2	Coastal Live Oak	16"	25'	15'	Good	Good
3	Coastal Live Oak	22"	30'	20'	Good	Good

D.B.H. - Diameter at Breast Height

4.3 Basic Tree Preservation Measures (TPMs)

The basic tree protection fencing is just the first step in tree preservation. Many additional tools and procedures come into play. Usually restriction of space and time curtail the use of the more esoteric ones, but those below are significant. Ideally, the owner or designer makes decisions well ahead of the project's start so that only trees which can realistically be preserved are retained.

Tree Protection Fence (TPF)

- Install fence *BEFORE* any other phase of the project begins.
- Keep *fence in tact* until ready for final landscaping.
- Use a *continuous 6' foot high chain link fence with an allowed 2' foot opening to provide access for inspections*. The Posts = 8 ft. tall X 2" inch diameter galvanized posts driven 2 feet into the soil. Post Signs on the fence (8.5" X 11") warning of "penalty for working inside of fence or removal without written permission of Project or City Arborist (specific sign wording can be provided in memo form).

Fence *as much of the root zones as possible*, ideally 5' feet beyond the drip lines (branch tips) or including the entire TPZ. For this project's design constraints, the fence locations are pulled back to hardscape perimeters (with supplemental root zone protection described below).

Prohibit *all construction impact* from disturbing the root zone area which can effect tree preservation.

The "clinical" area of the trees are the trunk and the branch structures that we see above the ground, however to ensure the health of the tree and facilitate preservation we must also acknowledge and take into consideration the complex structures of the root system under the ground responsible for structural and nutritional health; therefore, *should work be required within the TPZ the advice and guidance of a Project Arborist should be employed*.

SUPPLEMENTAL PROTECTION – MULCH – ROOT ZONE BUFFER

Wood chip mulch shall be applied over open room zones (beneath trees' drip lines) to a depth of 4-6 inches, tapering to soil level within the 9 inches nearest the tree trunk.

Wood chips from tree pruning operations are ideal – they make a mulch that provides exceptional benefits to all trees – modifying the soil environment to conserve moisture, promote beneficial soil microbes, buffer against weather (desiccating sun, drying winds, pounding raindrops, temperature extremes), cushion the soil structure from foot (or vehicle) traffic.

Provide this for all trees – even inside of TPFs.

Where this buffer is used when TPFs cannot be placed at a drip line, additional supplemental material(s) may be required. When pre-existing driveway asphalt, or similar durable surface can be maintained intact, that may suffice. Otherwise for those cases, arborist sign-off is required, but generally depends on the traffic load:
-foot traffic and wheelbarrows: sheets of 5/8-inch plywood tacked together.
-Small bobcat-type vehicles and "Fergie" – size tractors: increase chip depth to 9 inches with 1-inch plywood sheets.
-Occasional full-size vehicles (cars, pickups, service vans): 9-inches of chips.
-Cement trucks, haulers, loaded dump trucks, heavy duty delivery trucks ["construction site temporary access road"]: a layer of biaxial geogrid (e.g. Tensar BX1200, or equal) on top of existing grade, topped with 12 inches of chips with 1-inch trench plate, tack welded together to avoid slipping apart.

Removal of any existing driveway or parking lot asphalt from over root zone areas must be performed with care. The excavator/tractor/trucks must keep all

tires/tracks on the existing asphalt, picking it up as it goes. Re-laying the paving surfacing is done in reverse path, again keeping all tires/tracks on the hard surface above any root zone.

ROOT-SENSITIVE DESIGN

Additional preservation suggestions and techniques to consider can include:
-Pier and grade beam (on top of existing grade) to suspend construction above the roots.
-Trenchless technology to place utilities beneath roots without severing by trenching.

-Porous concrete, porous asphalt, open pavers can be used for some surfaces to let both air and water into root zones.
-Re-route the layout in a different location to avoid tree roots.
-Ramp over tree roots to avoid compacting their soil or severing them.

SUPPLEMENTAL WATERING AND FERTILIZING

Objective: To provide moisture to promote vigorous, healthy root growth.
Procedures:
Water application hints can be found in the ISA BMPs (Fertilization). Generally, a basic rule is to provide a deep soaking once a month during the hottest months of the year. Start before construction commences. Continue for a year after project completion. Modify by on-site arborist observations, especially during the "dry season" or in "drought conditions".
One application of water can be made to be included with a fertilizer application
By surface application or soil injected to a depth of 6-8 inches.
Rules of thumb:
-10-20 gallons of water per trunk diameter incher per month, applied evenly over the root zone.
-Applying one inch of water will wet a moderate clay soil to about a depth of 1 ft.
-Soil samples should be lab tested to determine nutrients lacking-lab fertilizer recommendations should be followed.

PRUNING

General: The care of trees is the obvious domain of tree care contractors. Any clearance pruning, removals, aesthetic trimming, removal of limbs, root pruning, stump grinding, and/or remedial repair must be performed by a tree care contractor with a current California Contractor's License – the appropriate classification is C61/D49, with workers being WC-ISA Certified Tree Workers supervised by an ISA Certified Arborist. This includes removal of trees and/or stumps with intertwining/overlapping branches or roots.

Route: Typically trees would benefit from pruning near the end of a project, sometimes to improve the health and structure of some, but also to remove any deadwood, establishing a benchmark against which one can measure changes n the trees' status (e/g/, accumulation of new deadwood, hence decline).

Project-Critical: Of particular importance here may be a project clearance issues. Depending on the owner's decision about which trees to retain, crown cleaning, thinning and raising may be needed, especially structural pruning for the near at hand perimeter trees.

Standards: All tree work must comply with applicable tree-specific ANSI Standards and be performed within the guidelines of the ISA Best Management Practices – qualified tree care contractors will be thoroughly familiar with those published industry standards.

Typical pruning types to be used are described in the cited standards. Most of the trees would benefit from "cleaning" to remove deadwood and diseased or superfluous branches; plus, they can be improved structurally by "thinning" to reduce foliage branch end weights; many will require "raising" for project clearance.

Over-Pruning: Care must be taken to avoid over-pruning trees that one seriously wants to preserve. Not only does that ruin trees' structure, but it also removes so many food producing leaves that it stresses the trees (puts them on a diet), sometime irrecoverably. Generally, one can prune 25% from a young, vigorously growing oak or redwood without resulting in a stress reaction. Mature trees usually show stress when 15% is pruned out. Over-mature specimens can readily show decline when even 5% of the live foliage is removed from an area of the foliage canopy.

Pruning Specifications: Objectives and procedures must be project-specific. As project details take shape, the Project Arborist can draft tree-specific pruning specs in line with those general guidelines, depending on the extent to which the project is designed to accommodate tree preservation.
Root Pruning: Any roots that must be severed must be cut cleanly (no shatter, rip, tear). A tree care contractor must root prune along any line, cut, or trench will disrupt roots larger that 1-inch in diameter. This root pruning is best scheduled prior to the installation contractor's work – this actually both speeds up the work for the contractor and cause less damage to the trees.

CUTS / FILLS

Cuts into the root zones must be minimized, per roots and root zones discussions above. Preview by Project or City Arborist required before commencing.

ROOT CROWN CHANGES / DISTURBANCES

Root crown: the base of a tree – where the trunk ends and scaffold roots flare off into the surrounding soil. No change or disturbance may occur in any root crown area and all materials inadvertently or intentionally accumulating there must be removed.

ATTACHMENTS

No construction apparatus shall be attached to any tree (braces, signs, slings, etc.).

TRENCHES

Proactively avoid routing any trench under any tree's drip line (including utility, sewer, phone, cable, electric, drainage, irrigation, decorative lighting, pool supply, etc.).

In the unlikely event that a trench must cross a root system, the plan must be reviewed by the Project Arborist before that work can be done.

Consider alternatives – Tunnel with trenchless technology equipment? Hand dig? Trench straight toward a tree's trunk from both sides and then follow tunneling procedures for the short distance between (tree-specific distances recommendations can be made, based on an individual subject tree's size)?

When trenching across a root zone is necessary on-site monitoring by Project Arborist is required.

EQUIPMENT CLEANING

Establish a "Clean Out" site for such equipment as concrete trucks, cement forums, plastering apparatus, paint tools, etc. This must be located well away from any tree's root zone – or even any future planting areas.

All (sub) contractors must be on-notice that equipment must never be cleaned out over any tree's root zone – only within the designated "Clean Out" site.

STORAGE

No storage of gasoline, oil, or other chemicals over any tree's root zone.
No storage of any construction materials inside of any tree protection fence.

CHEMICAL SPILLS

Promptly confine and clean up any chemical spill over any root zone.

PARKING

No parking under tree canopies unless the root zones are protected. This will be precluded if they can be fenced at the drip lines. Even ore important is the root zone wood chip mulch.

Traffic causes irreparable harm to the soil structure and to the tree's roots due to the compaction.

Root zone compaction under a traffic load can be reduced by thickening the root zone buffer – say, beefing up to 6-8 inches of wood chips. Alternative buffer surfaces might include (alone or in combination): crushed rock, plywood sheets, steel plate, etc. And one still must be careful of clearances to avoid bark bruising, trunk scrapes and limb breakage.

PUBLICATION & NOTICE

A copy of these tree protection measures must be on site, available to all workers, so they will be on notice regarding the tree's requirements.

One effective method is to paste up these pages on a sheet (usually titled "Tree Preservation Plan, Sheet T-1", or equivalent) and be certain that it is included in every set of construction drawings issued.

LANDSCAPE PLAN

A well-thought-out landscaping plan can be essential. It must take into account the status and longevity of this site's existing trees. Plan for the irrigation lines to be laid on top of existing grade, placed beneath the wood-chip-mulch layer. Expect no irrigation or water-loving plants within 10 feet of any mature tree's trunk.

MONITORING

Project Arborist inspections begin with a sign-off to confirm that initial tree protection measures are in place before commencement of any other part of the project.

The City of Los Altos requires periodic monitoring inspections by the Project Arborist verifying that the tree preservation measures continue to be effective, with monthly reports faxed to the owner and the City Arborist.

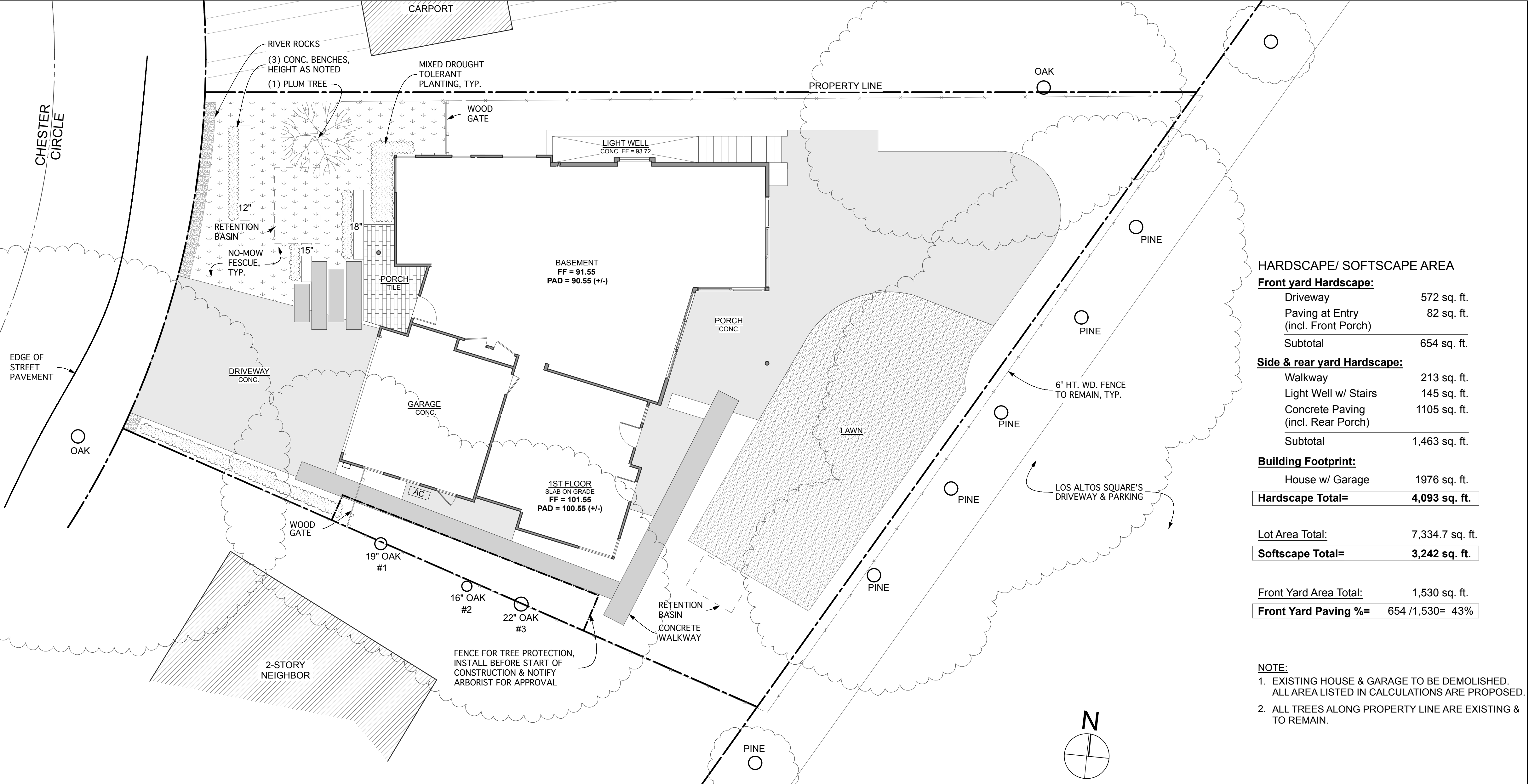
PENALTIES

All (sub) contractors and their personnel must understand that they are responsible for their actions around these trees.

Circumventing tree protection measures will most certainly cause the tree(s) additional stress. This can be calculated as a change in the tree's status and there are formulae for assessing damage dollar amounts (see CTLA, Council of Tree and Landscape Appraisers).

Besides penalties derived from action on the City Ordinance, court have required contractors to pay penalties directly to the property owner suffering the damage/loss (diminution in tree value), sometimes assessed as double or triple if intentional action.

NOTE:
THE ABOVE INSTRUCTIONS WERE PART OF A CERTIFIED ARBORIST'S REPORT PREPARED ON JULY 7, 2013. BY:
DON ARAKI
THE TREE SPECIALIST
ISA CERTIFIED ARBORIST WE-6547A
(408) 209-1007



LANDSCAPE PLAN & TREE PROTECTION

REVISIONS
Design Review Submittal 9/5/13
Design Review Submittal 10/22/13

LICENSED ARCHITECT
CHI-LUH CHEN
No. C28968
Exp. 12/31/13
STATE OF CALIFORNIA

CHI-LUH (CAROLINE) CHEN
ARCHITECT
718 TERRACE CT
LOS ALTOS, CA 94024
650.996.0622
chiluh@yahoo.com

TING RESIDENCE: NEW SINGLE FAMILY HOME
64 CHESTER CIRCLE, LOS ALTOS, CA 94022

LANDSCAPE PLAN &
TREE PROTECTION

PRINT DATE: 10/22/13

SHEET