210 MARVIN AVENUE

LOS ALTOS, CA 94022

A New Vibrant & Sustainable Residence

PROPOSED SCOPE OF GREEN DESIGN

Environmental Innovations in Design, on behalf of Alice and Johnny Wang, is pleased to present this new single family residence at 210 Marvin Avenue in the City of Los Altos. This Modern two story residence has been designed in a highly attractive and sustainable manner to responsibly addresses the surrounding environment with care and sensitivity.

The home is designed to accommodate the owner's lifestyle, while responding to site and solar orientation, and also contextually to the surrounding neighborhood. This includes respecting the neighbors privacy through the use of generous setbacks and by limiting second story views into adjacent property. Nighttime privacy, light and glare issues are addressed through the use of motorized venetian blinds to preserve the nocturnal tranquility of the community.

The new home will be built to exceed current energy efficiency requirements, while fostering the overall goal of creating an architecturally pleasing, aesthetic and progressively sustainable design. Green programming features will include:

- ♦ Near-zero energy net consumption
- ◆ Recycled, Re-used materials at walls, roofs, floors. ◆ Recycling of 85% of Construction Waste
- ♦ High Efficiency Heating and Cooling Systems
- ◆ Passive & Mechanical Ventilation for Indoor Air Quality ◆ Plentiful, well oriented Daylighting
- ◆ Tankless or High Efficiency Water Heaters
- ♦ On-Demand Hot Water Recirculation Pumps
- ♦ Photovoltaic and/or Hot Water Panels on Roofs ◆ Southerly Oriented Roofs for Solar Efficiency
- ◆ Structural Insulated Panels (SIP) Roofing ◆ Use of Fly Ash and Recycled Rebar in Concrete
- ♦ Heat dissipating technologies at exterior walls
- ◆ Low-E, thermally insulated Windows

California Architect license number C-26427.

- ◆ Drought Tolerant, Water Efficient Landscaping ◆ Electrical Vehicle charging stations
- ♦ 15% or Better improved Energy Performance above Title-24 Energy Compliance Requirements The Architect will provide professional services of this under





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Civil	
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L-2	PLANT LIST & IMAGES

PROJECT DATA SUMMARY

PRIVATE SINGLE FAMILY RESIDENCE - ZONING R1-10 TYPE V-B CONSTRUCTION

PLANNING PERMIT # TBD BUILDING PERMIT NUMBER: TBD APN# 170 - 27 - 038 LOT AREA: 22,176 SF GROSS 19,535 SF NET

NFPA 13D AUTOMATIC FIRE SPRINKLERS AND INTERIOR SMOKE ALARMS PROVIDED AT DWELLING PER FIRE PROTECTION DISTRICT.

ALL CONSTRUCTION SHALL COMPLY WITH 2016 CRC, CBC, CPC, CMC, CEC and 2016 California Energy Code, LOS ALTOS HILLS MUNICIPAL CODE, ALL LOCAL AMENDMENTS / ORDINANCES, and ALL LOCAL SUB-TRADE CODES. CONTRACTOR SHALL COMPLY WITH 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, REFER TO GB SHEETS.

Jurisdiction - Los Altos

♦ The Geotechnical aspects of the construction including demolition and rough site grading, atgrade foundation excavations, subgrade preparation and the installation of surface drainage control systems, should be performed in accordance with the recommendations presented in the geotechnical report prepared by Engineers. Engineers should be provided at least 48 hours advance notification of any geotechnical aspects of the construction and should be present to observe and test, as necessary, the earthwork, foundation, and drainage installation phases of the

DEFERRED SUBMITTALS FOR THIS PROJECT INCLUDE: S.I.P. PANELS, FLOOR TRUSSES, (STRUCT'L INSULATED PANEL SHOP DWGS.), FIRE SPRINKLERS,

PHOTOVOLTAIC ARRAY, EVSE (electric vehicle charging stations), LANDSCAPE, IRRIGATION BUDGET FOR OUTDOOR WATERING.

SPECIAL INSPECTIONS REQUIRED: DRILLED PIERS, HIGH STRENGTH CONCRETE, FIELD WELDING, HIGH STRENGTH SHEAR WALLS.

ZONING COMPLIANCE

	Existing	Proposed	Allowed/Required
LOT COVERAGE: Land area covered by all structures that are over 6 feet in height	2,735 square feet (14 %)	4,203 square feet (22 %)	5,860.5 square feet (30.0 %)
FLOOR AREA: Measured to the outside surfaces of exterior walls	2,734 square feet (14 %)	4,699.9 square feet (24.1 %)	4,703.5 square feet (24.1 %)
SETBACKS: Front Rear Right side (1 st /2 nd) Left side (1 st /2 nd)	45.2 feet 60.5 feet 30.3 feet/NA feet 25.4' feet/NA feet	25 feet 61.6 feet 13.4 feet/29.4feet 22.5' feet/25.1feet	25 feet 25 feet 10 feet/17.5 feet 10 feet/17.5 feet
Неіднт:	<u>16</u> feet		feet

SQUARE FOOTAGE BREAKDOWN

	Existing	Change in	Total Proposed
HABITABLE LIVING AREA: Includes habitable basement areas	2,335 square feet	4,444 square feet	6,373.4 square feet
NON- HABITABLE AREA: Does not include covered porches or open structures	square feet	square feet	933*_square feet

LOT CALCULATIONS

NET LOT AREA:	<u>19,535</u> square feet
FRONT YARD HARDSCAPE ARI Hardscape area in the front yard setback s	809 square teet (2/ %)
LANDSCAPING BREAKDOWN:	Total hardscape area (existing and proposed): 8,919 sq ft Existing softscape (undisturbed) area: NA sq ft New softscape (new or replaced landscaping) area: 10,616 sq ft Sum of all three should equal the site's net lot area

*NON-HABITABLE AREAS INCLUDE THE GARAGE AND BASEMENT STORAGE AREA.

VICINITY MAP

	ARBOR T.B.D.	IST:
	Phone: Mobil: Email:	(650) (650)
Benver Sundie Benver	ELECTI	RICAL:
150/	T.B.D.	

Phone:

Mobil:

Email:

T24/ GREEN RATER: T.B.D. Phone: Mobil: Email:

GEOTECHNICAL:

(650)

48511 Warm Spring Blvd., Suite 210

Earth Systems Pacific

Fremont, CA 94539

COLOR AND MATERIALS

LANDSCAPE ARCHITECT: ZAC Lanscape Architect, Inc. 145 Keller Street Petaluma, CA 94962 Phone: (707) 696-2967 Mobil: sr@zaclandscape.com

Lea & Braze Engineering, Inc

(510) 887-4086

(510) 760-8727

pcarlino@leabraze.com

callison@leabraze.com

2495 Industrial Parkway West

Hayward, CA 94545

Mobil:

GENERAL CONTRACTOR: SURVEYOR/ CIVIL ENG.:

T.B.D. Phone:

STRUCTURAL ENGINEER:

Environ	mental Innovations in Design
412 Olive	Avenue
Palo Alto,	CA 94306-2225
Phone:	(650) 226-8770
Mobil:	(650) 793-2856

(650) /93-2856 stuart@EIDarchitects.com

OWNER:

ARCHITECT: EID Architects

ALICE & JOHNNY WANG

210 Marvin Road Los Altos, CA 94024

(408) 504-8448 johnny.w.wang@gmail.com

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5/14/2017

210 MARVIN AVENUE

Phone:

Mobil:

Email:

SHEET TITLE

COVER SHEET

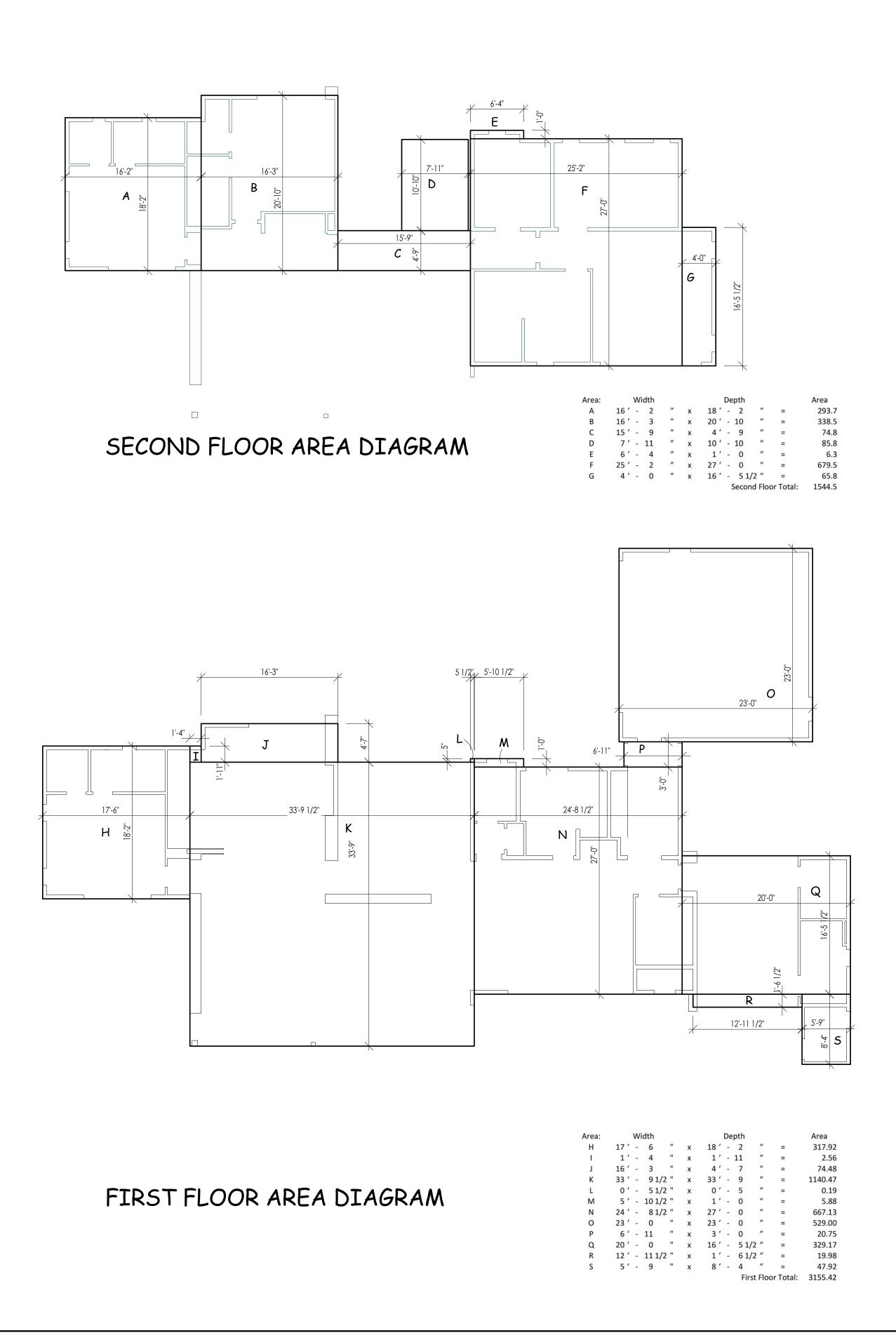
T.B.D.

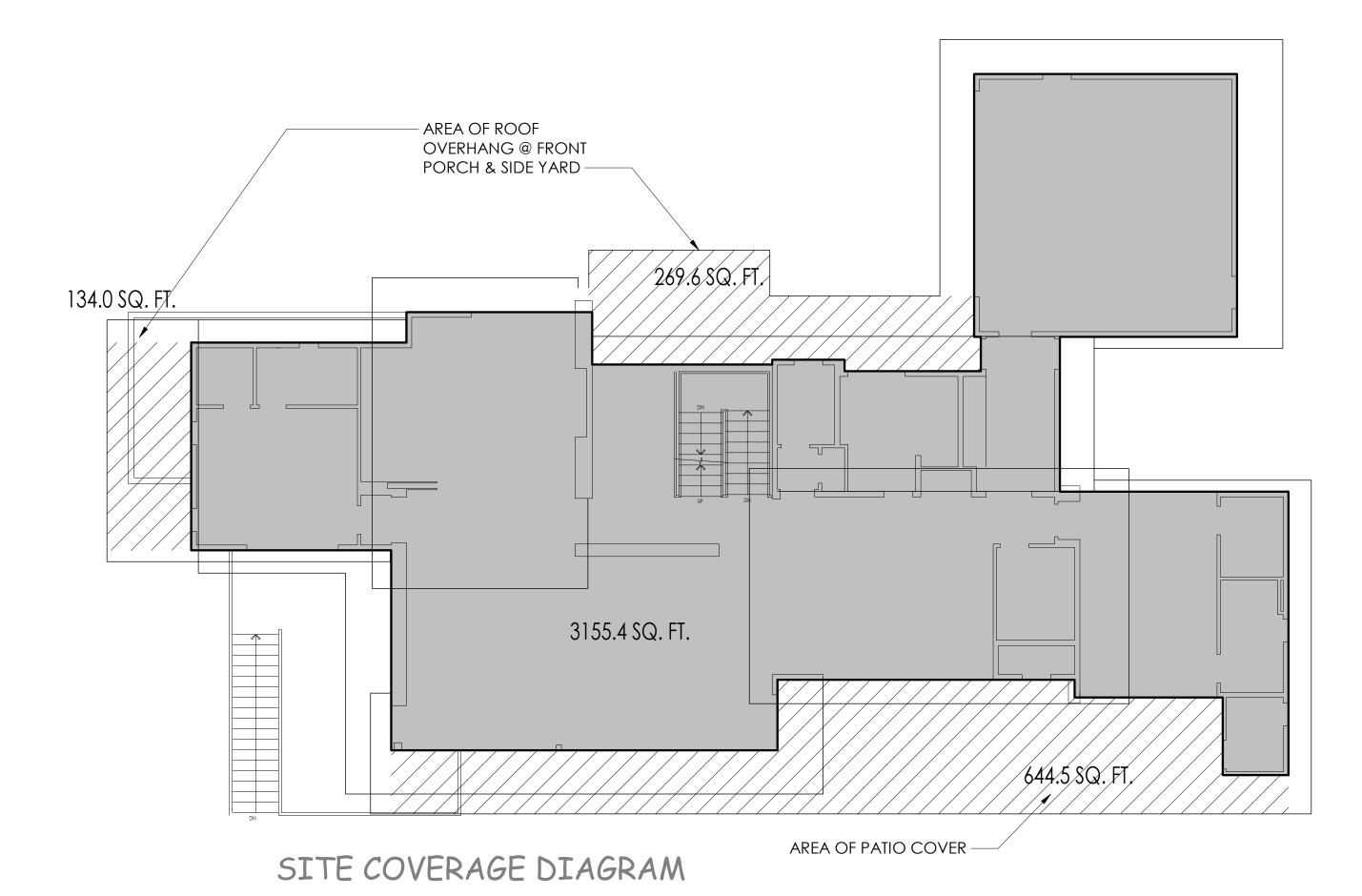
Email:

SHEET NUMBER A-0.0 ENVIRONMENTAL INNOVATIONS IN DESIGN 412 OLIVE AVE. PALO ALTO, CA 94306

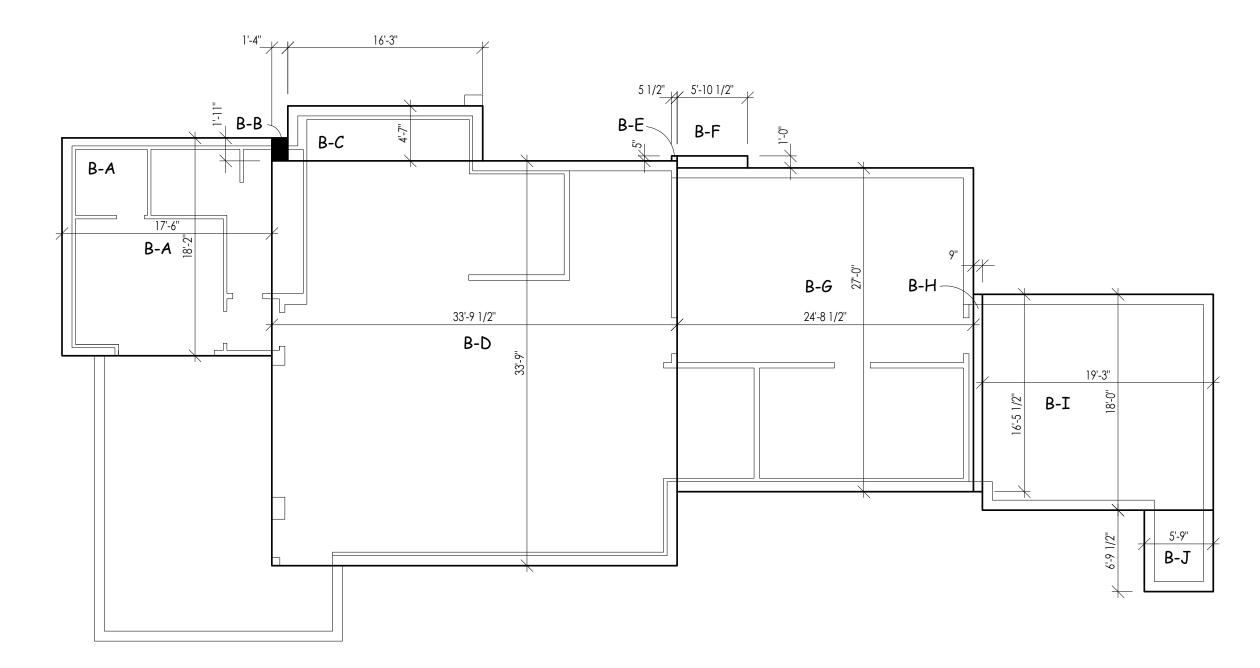


✓ AVENUE





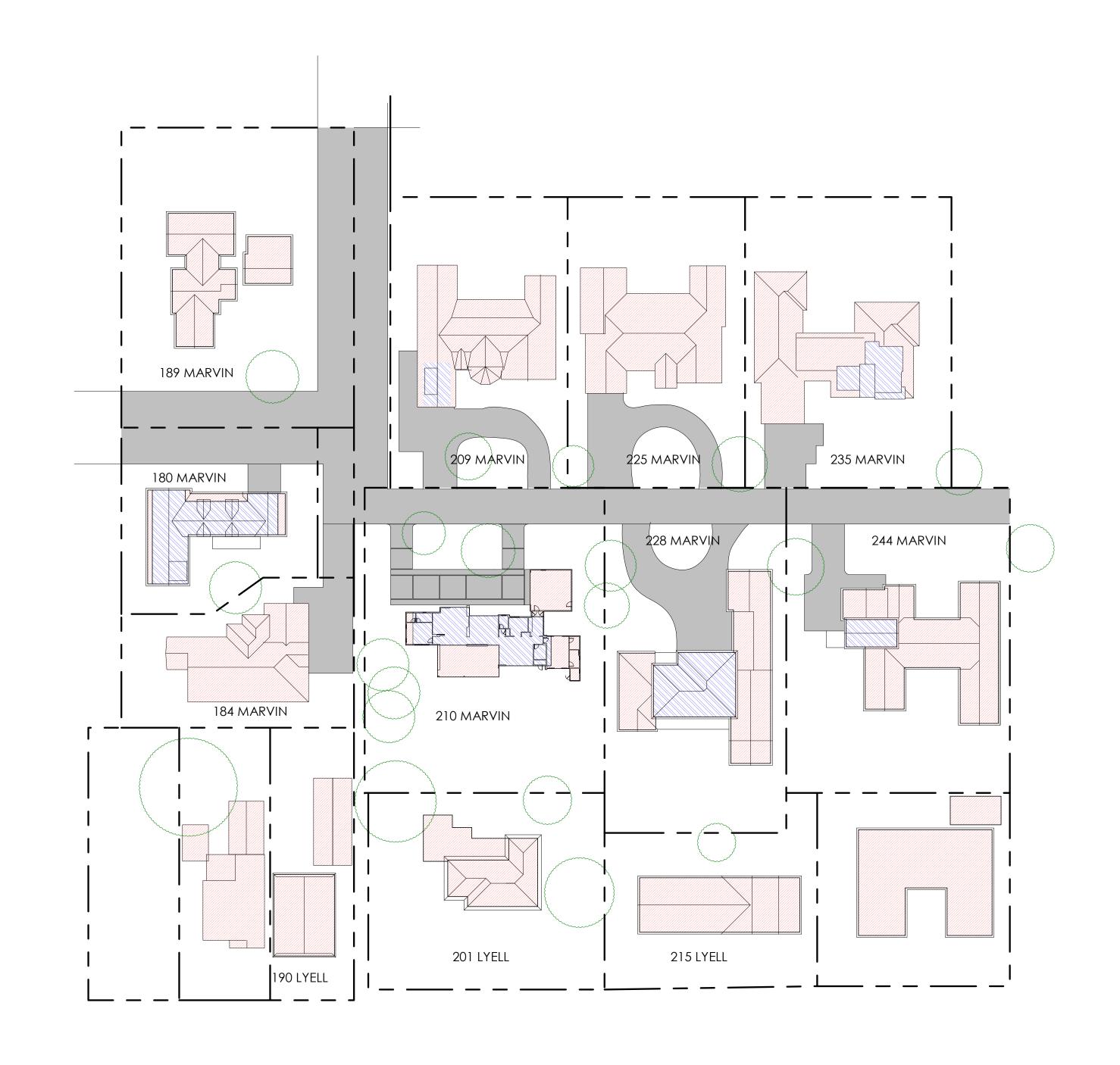
NET LOT AREA: 19,535 S.F. TOTAL AREA OF COVERAGE: 4,203.4 S.F. PERCENT LOT COVERAGE: 21.5%



BASEMENT FLOOR AREA DIAGRAM

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Address:	Lot Area:	
	Gross:	Net:
210 Marvin	22,175	19,536
180 Marivn	10,196	8,038
184 Marvin	10,942	
228 Marvin	19,000	17,000
244 Marvin	20,664	18,204
189 Marvin	21,139	15,676
209 Marvin	15,530	15,530
225 Marvin	15,530	15,530
235 Marvin	18,174	18,174
190 Lyell	6,923	6,923
201 Lyell	14,223	14,223
215 Lyell	10,436	10,436
Average	14,796	13,601

Neighborhood Contect Map
1" = 40'-0"

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A-0.2





LOOKING EAST, REAR YARD









201 LYELL

4 184 Marvin















1 189 Marvin

3) 209 Marvin

5 225 Marvin

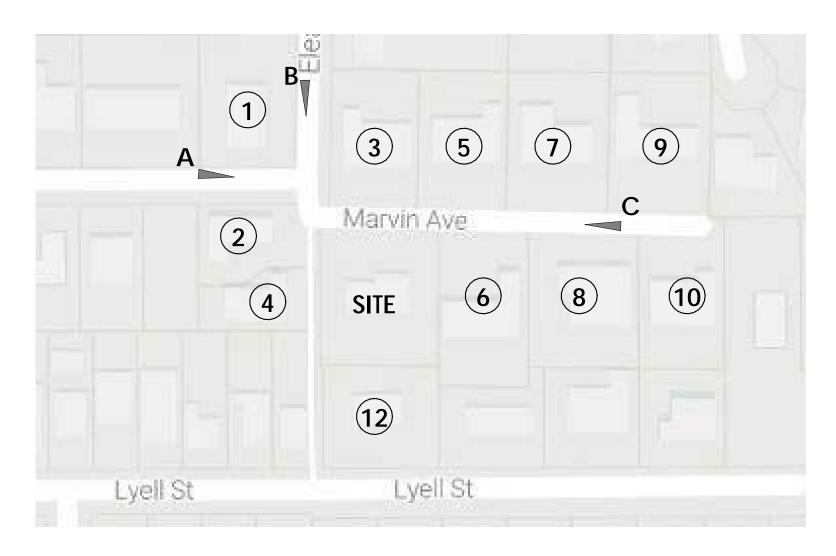
7 235 Marvin

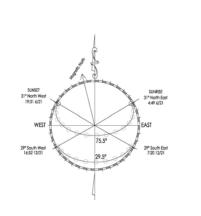
8 259 Marvin

MARVIN AVENUE NORTH SIDE









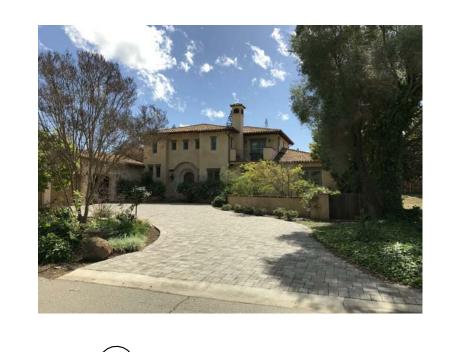


MARVIN AVENUE SOUTH SIDE















10 250 Marvin

8 244 Marvin

6 228 Marvin

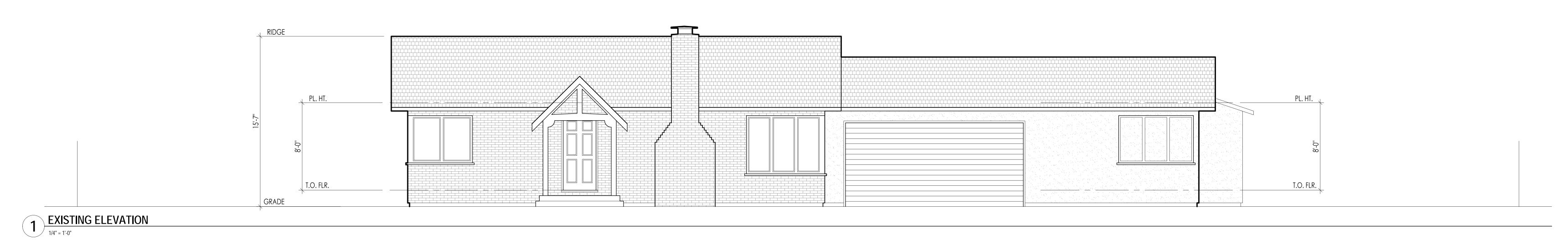
SITE

4 184 Marvin

2 180 Marvin

MARVIN AVENUE NEIGHBORHOOD PHOTOS



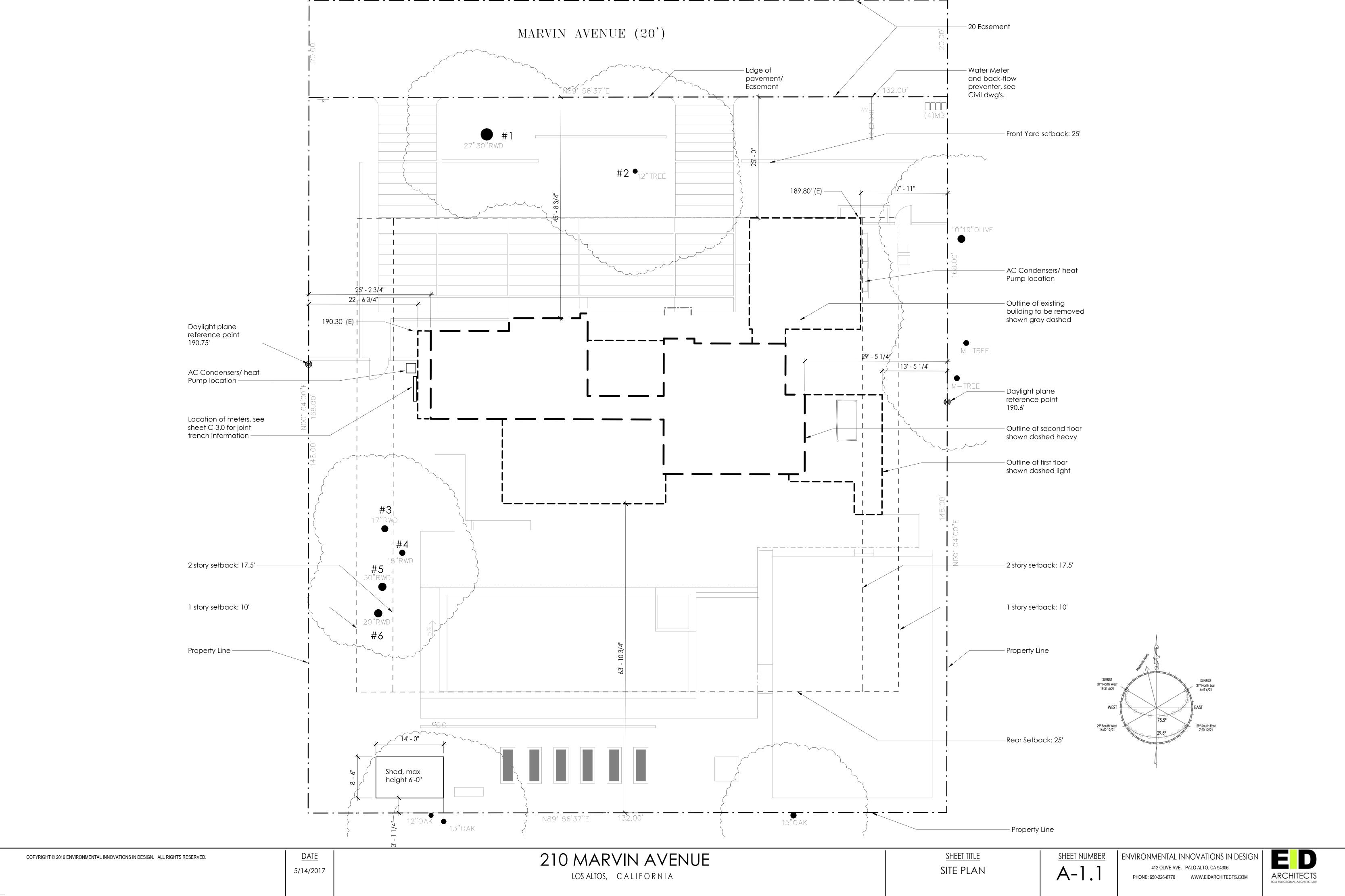


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Front perspective
12" = 1'-0"

ENVIRONMENTAL INNOVATIONS IN DESIGN 412 OLIVE AVE. PALO ALTO, CA 94306 PHONE: 650-226-8770 WWW.EIDARCHITECTS.COM



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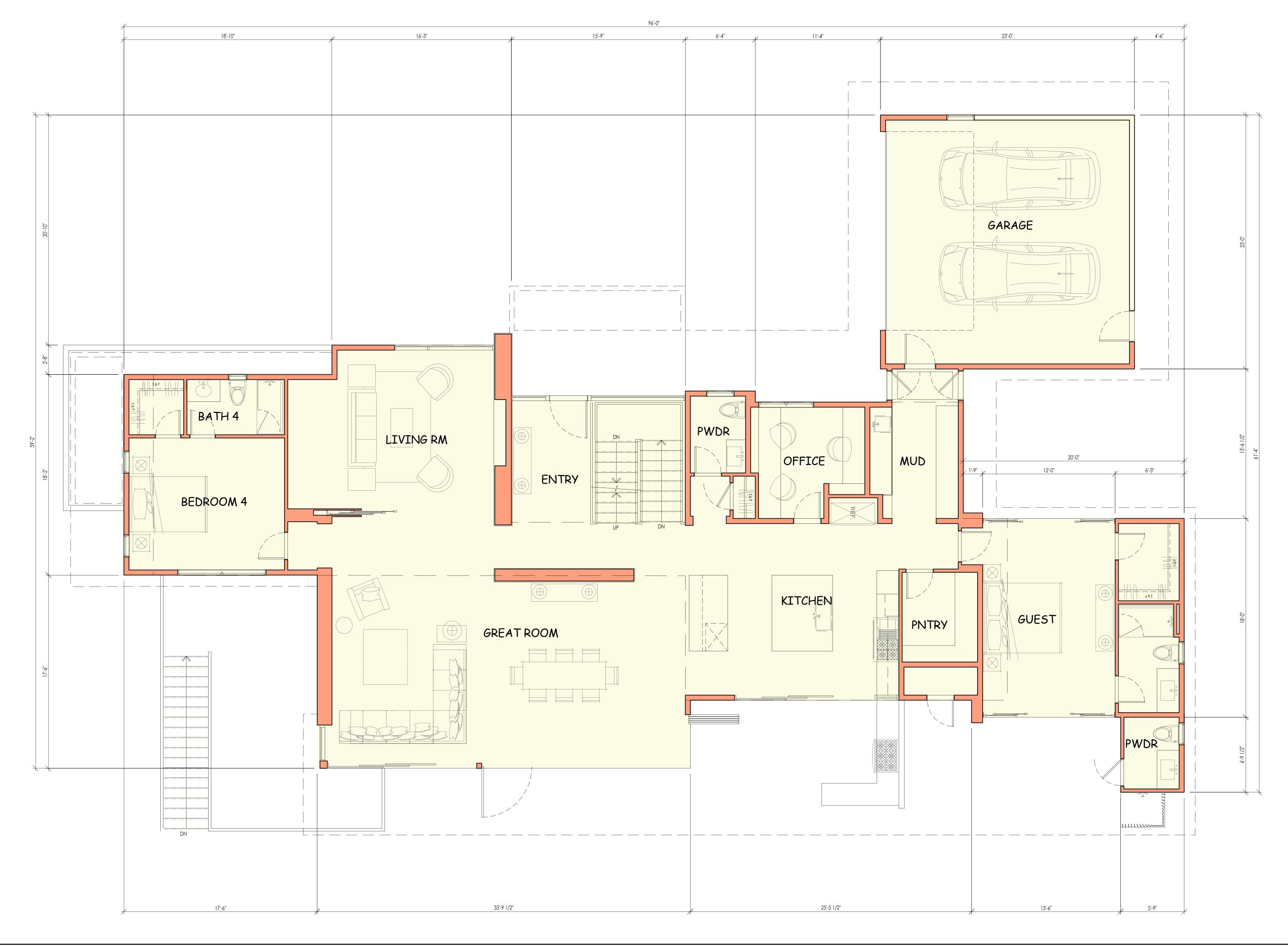
DATE

5/14/2017

SHEET TITLE
BASEMENT PLAN

A-3.0





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210 MARVIN AVENUE
LOS ALTOS, CALIFORNIA

SHEET TITLE
FIRST FLOOR PLAN

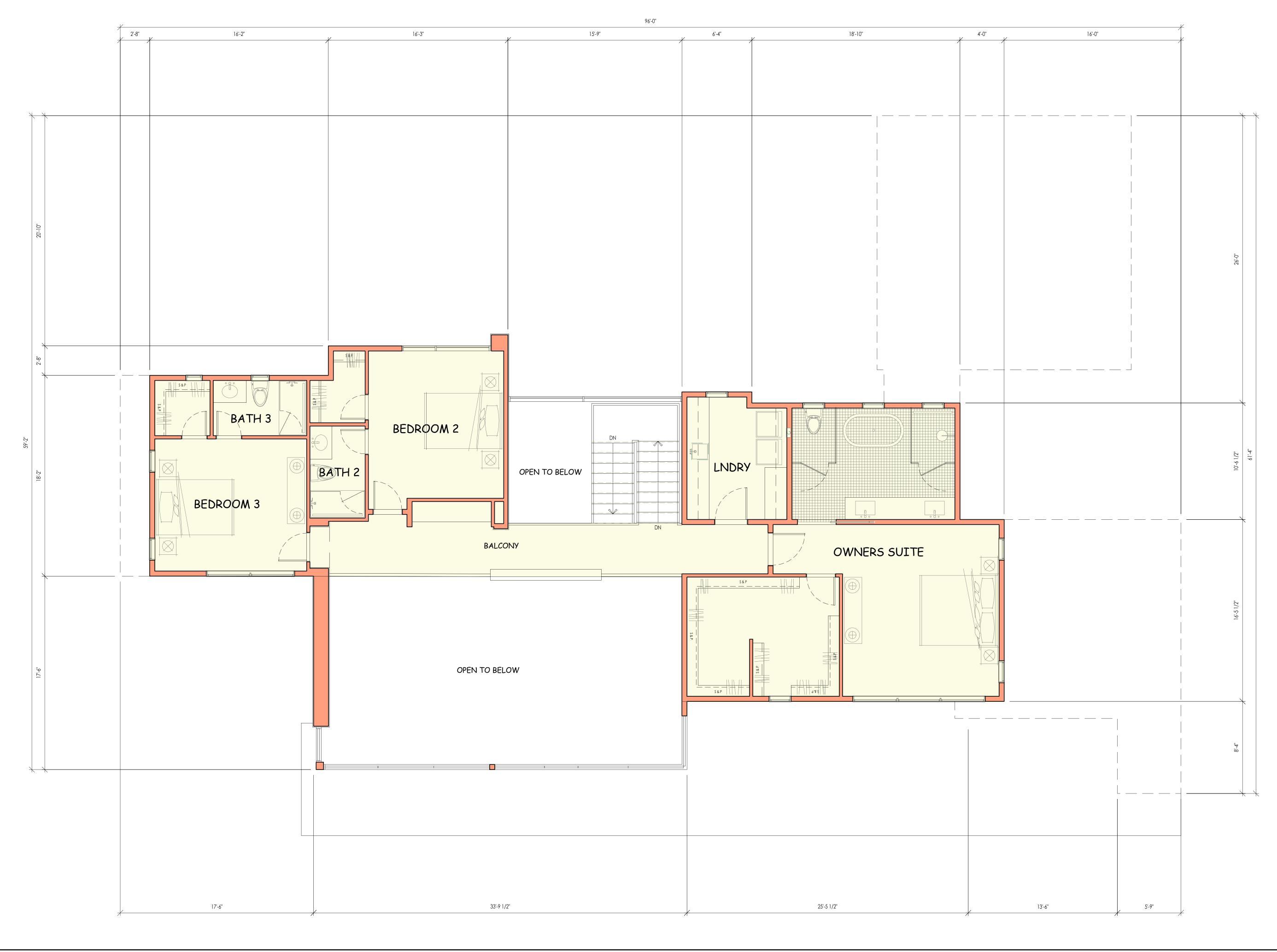
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ENVIRONMENTAL

412 OLIVE AV
PHONE: 650-226-8770





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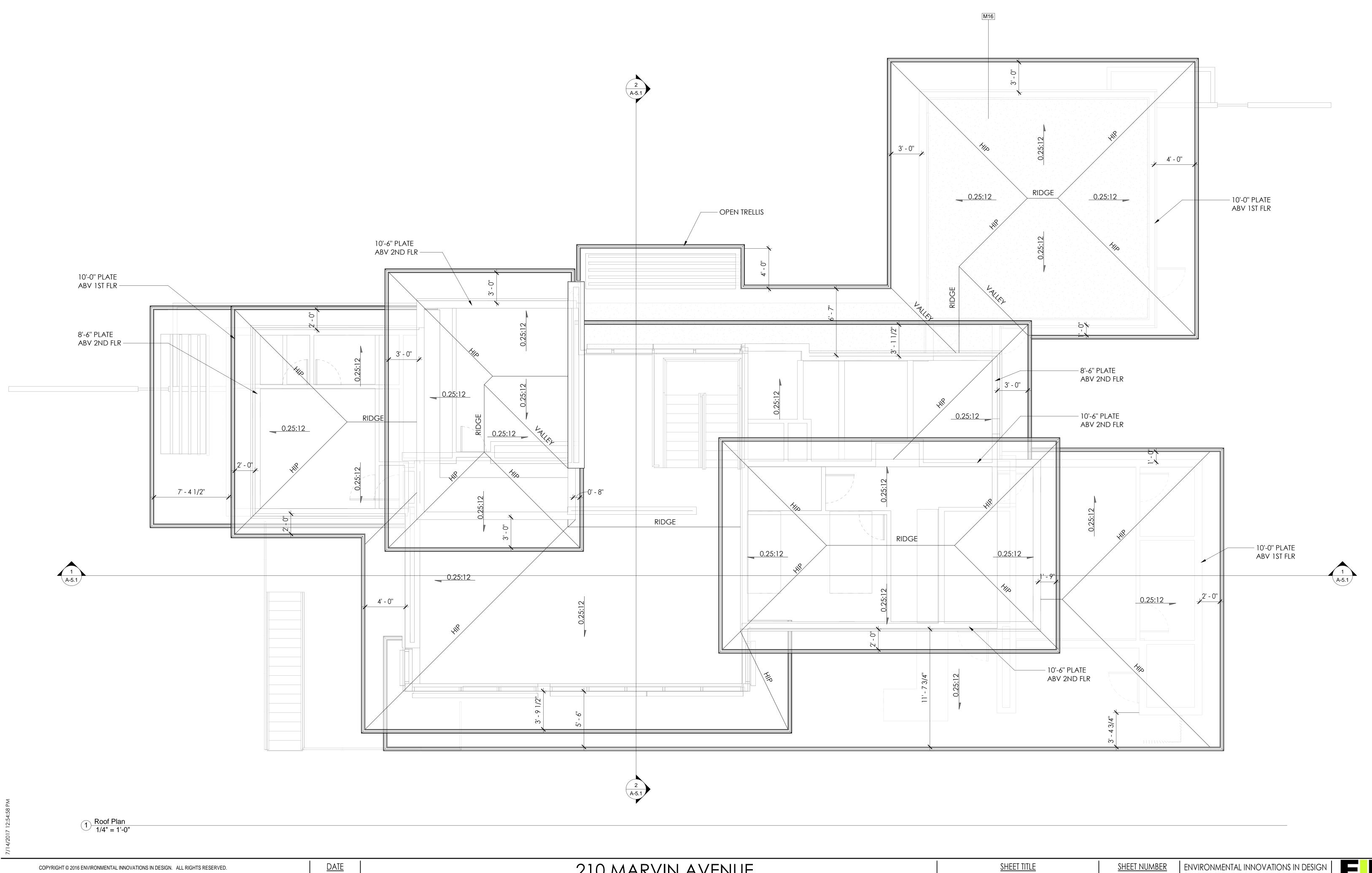
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SHEET TITLE SECOND FLOOR PLAN SHEET NUMBER
A-3.2





ARCHITECTS
ECO FUNCTIONAL ARCHITECTURE

5/14/2017



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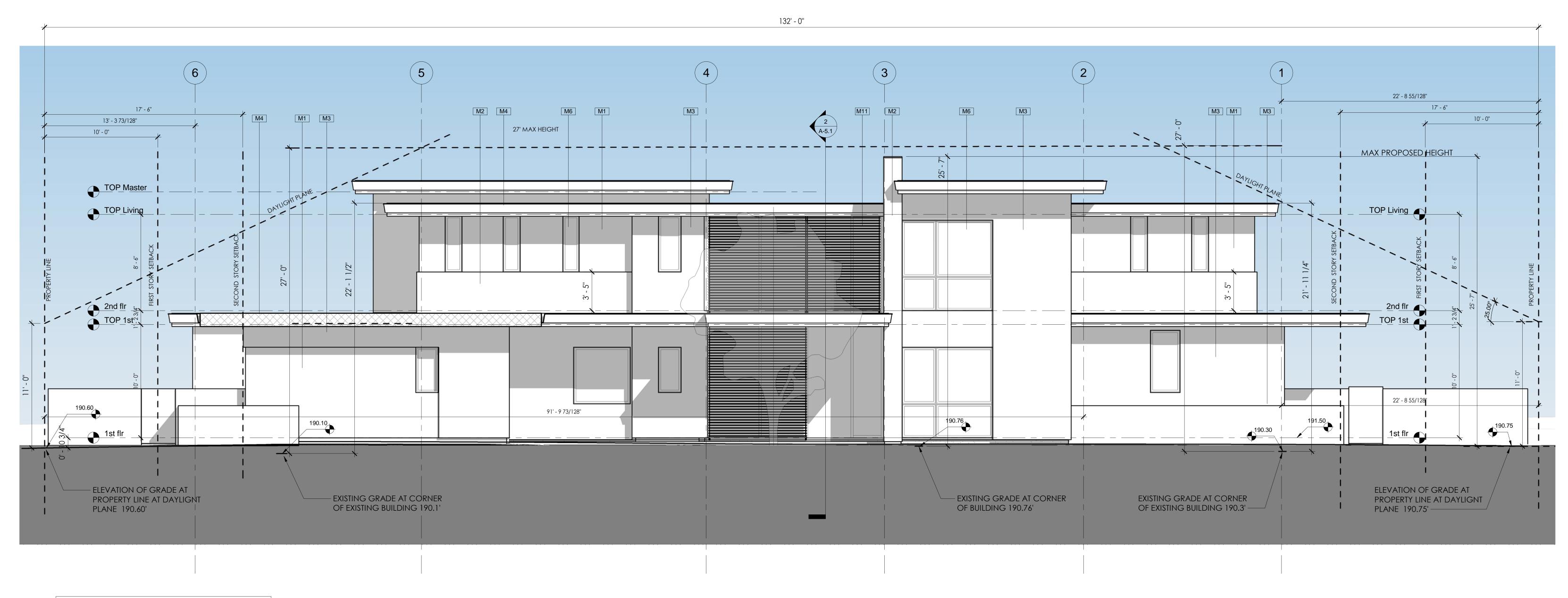
5/14/2017

LOS ALTOS, CALIFORNIA

SHEET TITLE FRONT ELEVATION (north)

SHEET NUMBER A-4.1





Keynote Legend		
Key Value	Keynote Text	
M1	STUCCO - SMOOTH TROWELED FINISH - COLOR	
M2	NEOLITH - BETON RIVERWASHED	
М3	NEOLITH - TIMBER OAK	
M4	PAINTED FASCIA AND GUTTER - COLOR	
M6	METAL WINDOW FRAME - COLOR	
M8	SLIDING GLASS DOORS, NANA OR EQUAL - COLOR	
M9	METAL HORIZONTAL RAILINGS AND FRAME - POWDER COAT FINISH TO MATCH WINDOWS	
M10	GARAGE DOORS, MARTIN DOOR, ATHENA - SMOOTH BRONZE	
M11	WAREMA EXTERNAL VENETIAN BLINDS, 80S W/ CABLE GUIDES, LIGHT GRAY	
M14	VERTICAL SCREEN WALL AT OUTDOOR SHOWER	
M16	TPO ROOFING, GAFF EVERGUARD - ENERGY GRAY	

North Elevation B&W

1/4" = 1'-0"

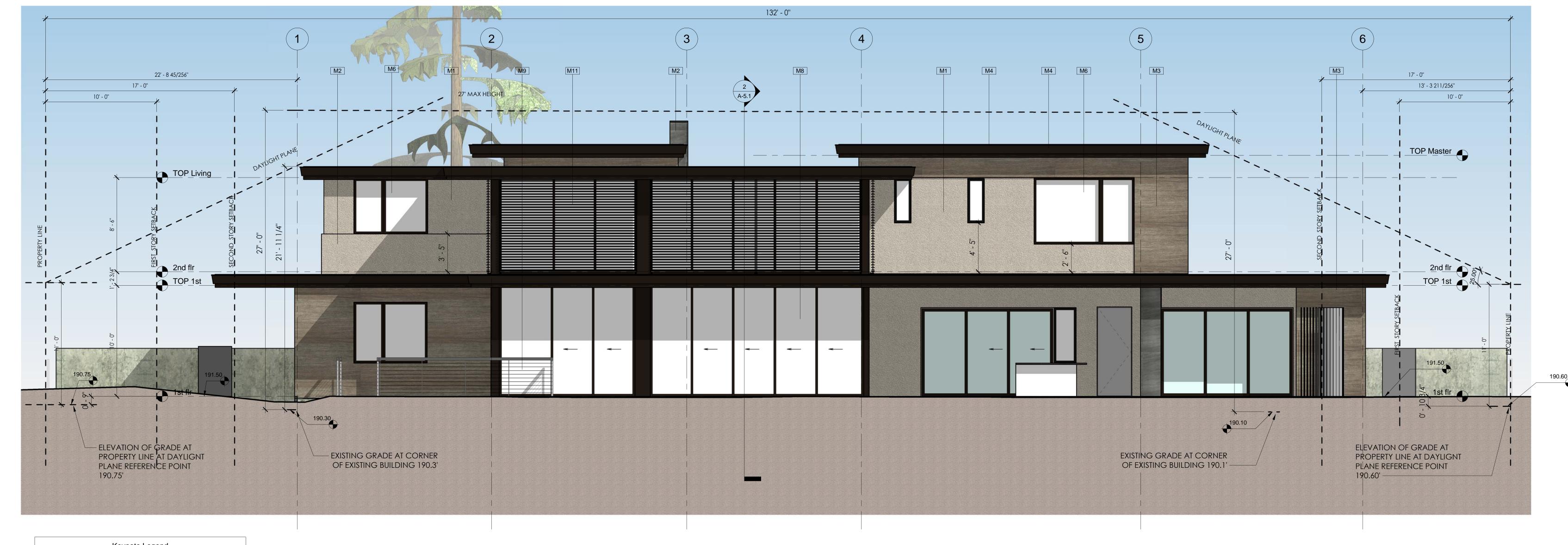
5/14/2017

210 MARVIN AVENUE

SHEET TITLE FRONT ELEVATION (north)

SHEET NUMBER A-4.1a

ENVIRONMENTAL INNOVATIONS IN DESIGN 412 OLIVE AVE. PALO ALTO, CA 94306 ARCHITECTS ECO FUNCTIONAL ARCHITECTURE PHONE: 650-226-8770 WWW.EIDARCHITECTS.COM



Keynote Legend		
Key Value	Keynote Text	
M1	STUCCO - SMOOTH TROWELED FINISH - COLOR	
M2	NEOLITH - BETON RIVERWASHED	
М3	NEOLITH - TIMBER OAK	
M4	PAINTED FASCIA AND GUTTER - COLOR	
M6	METAL WINDOW FRAME - COLOR	
M8	SLIDING GLASS DOORS, NANA OR EQUAL - COLOR	
M9	METAL HORIZONTAL RAILINGS AND FRAME - POWDER COAT FINISH TO MATCH WINDOWS	
M10	GARAGE DOORS, MARTIN DOOR, ATHENA - SMOOTH BRONZE	
M11	WAREMA EXTERNAL VENETIAN BLINDS, 80S W/ CABLE GUIDES, LIGHT GRAY	
M14	VERTICAL SCREEN WALL AT OUTDOOR SHOWER	
M16	TPO ROOFING, GAFF EVERGUARD - ENERGY GRAY	

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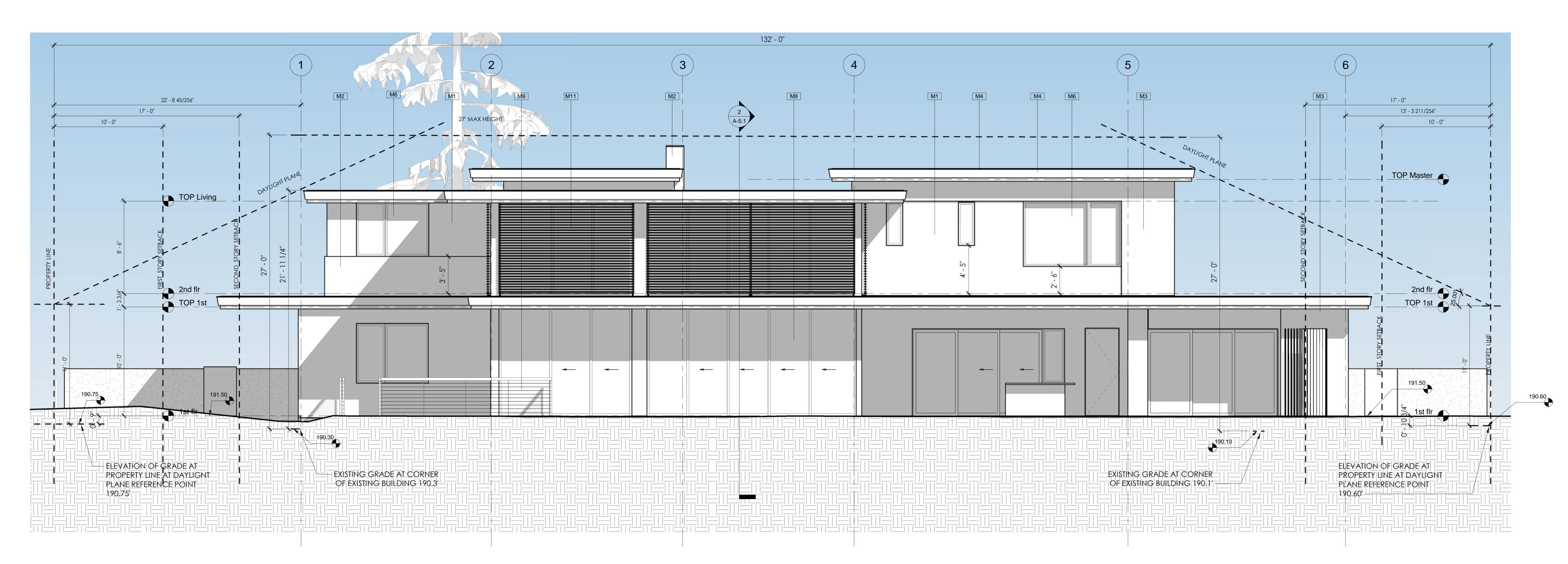
5/14/2017

LOS ALTOS, CALIFORNIA

SHEET TITLE REAR ELEVATION (south)

SHEET NUMBER A-4.2





Keynote Legend		Keynote Legend
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	M2	NEOLITH - BETON RIVERWASHED
	М3	NEOLITH - TIMBER OAK
	M4	PAINTED FASCIA AND GUTTER - COLOR
	M6	METAL WINDOW FRAME - COLOR
	M8	SLIDING GLASS DOORS, NANA OR EQUAL - COLOR
	M9	METAL HORIZONTAL RAILINGS AND FRAME - POWDER COAT FINISH TO MATCH WINDOWS
	M10	GARAGE DOORS, MARTIN DOOR, ATHENA - SMOOTH BRONZE
	M11	WAREMA EXTERNAL VENETIAN BLINDS, 80S W/ CABLE GUIDES, LIGHT GRAY
	M14	VERTICAL SCREEN WALL AT OUTDOOR SHOWER
	M16	TPO ROOFING, GAFF EVERGUARD - ENERGY GRAY

South Elevation B&W

1/4" = 1'-0"

5/14/2017

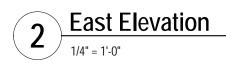
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LOS ALTOS, CALIFORNIA

SHEET TITLE REAR ELEVATION (south) SHEET NUMBER









	Keynote Legend
	Reynote Legend
Key Value	Keynote Text
M1	STUCCO - SMOOTH TROWELED FINISH - COLOR
M2	NEOLITH - BETON RIVERWASHED
М3	NEOLITH - TIMBER OAK
M4	PAINTED FASCIA AND GUTTER - COLOR
M6	METAL WINDOW FRAME - COLOR
M8	SLIDING GLASS DOORS, NANA OR EQUAL COLOR
M9	METAL HORIZONTAL RAILINGS AND FRAM - POWDER COAT FINISH TO MATCH WINDOWS
M10	GARAGE DOORS, MARTIN DOOR, ATHEN, SMOOTH BRONZE
M11	WAREMA EXTERNAL VENETIAN BLINDS, 80S W/ CABLE GUIDES, LIGHT GRAY
M14	VERTICAL SCREEN WALL AT OUTDOOR SHOWER
M16	TPO ROOFING, GAFF EVERGUARD - ENERGY GRAY

West Elevation

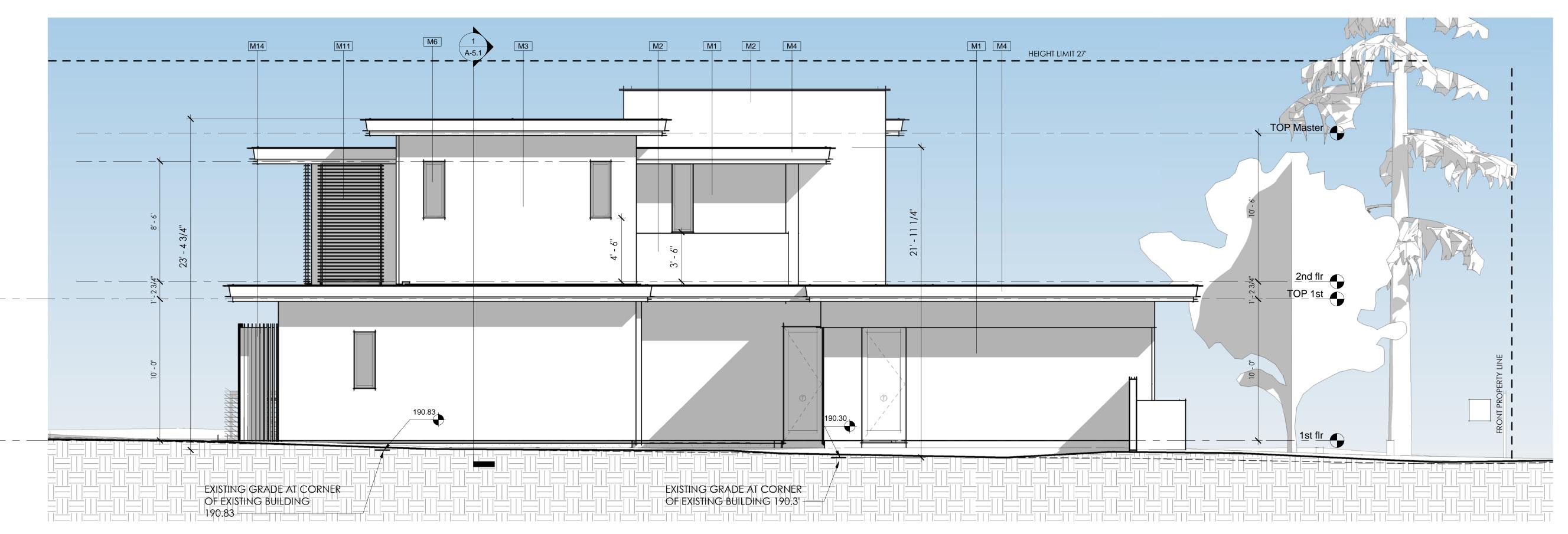
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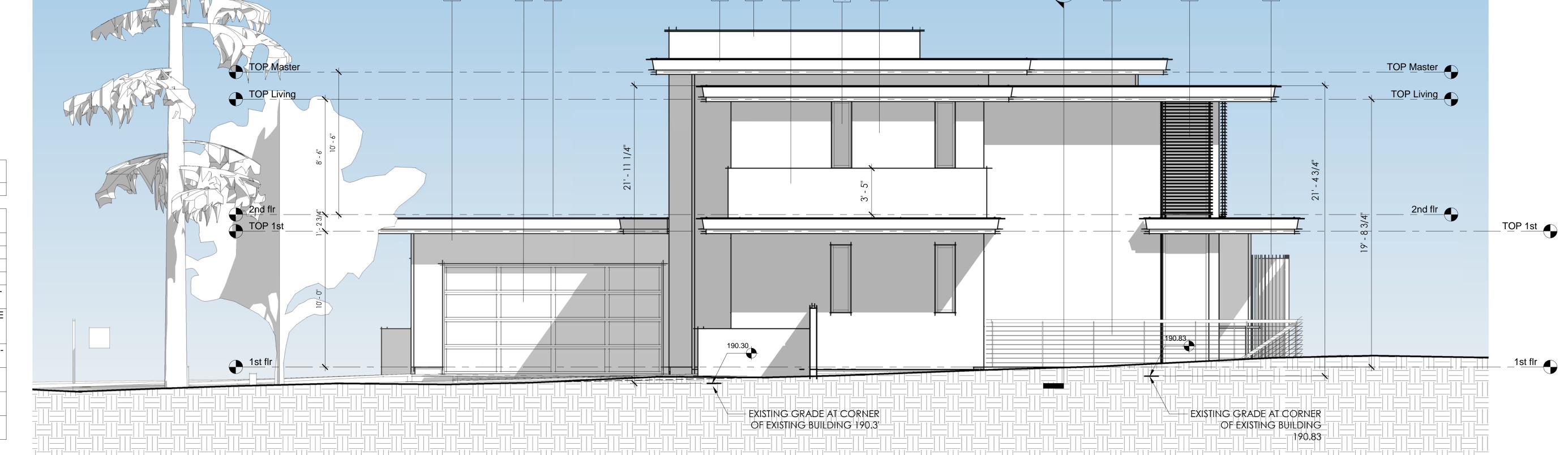
SIDE ELEVATIONS





East Elevation B&W

1/4" = 1'-0"



Keynote Legend Key Value Keynote Text STUCCO - SMOOTH TROWELED FINISH -COLOR NEOLITH - BETON RIVERWASHED NEOLITH - TIMBER OAK PAINTED FASCIA AND GUTTER - COLOR METAL WINDOW FRAME - COLOR SLIDING GLASS DOORS, NANA OR EQUAL METAL HORIZONTAL RAILINGS AND FRAME - POWDER COAT FINISH TO MATCH GARAGE DOORS, MARTIN DOOR, ATHENA -SMOOTH BRONZE WAREMA EXTERNAL VENETIAN BLINDS, 80S W/ CABLE GUIDES, LIGHT GRAY VERTICAL SCREEN WALL AT OUTDOOR TPO ROOFING, GAFF EVERGUARD -ENERGY GRAY

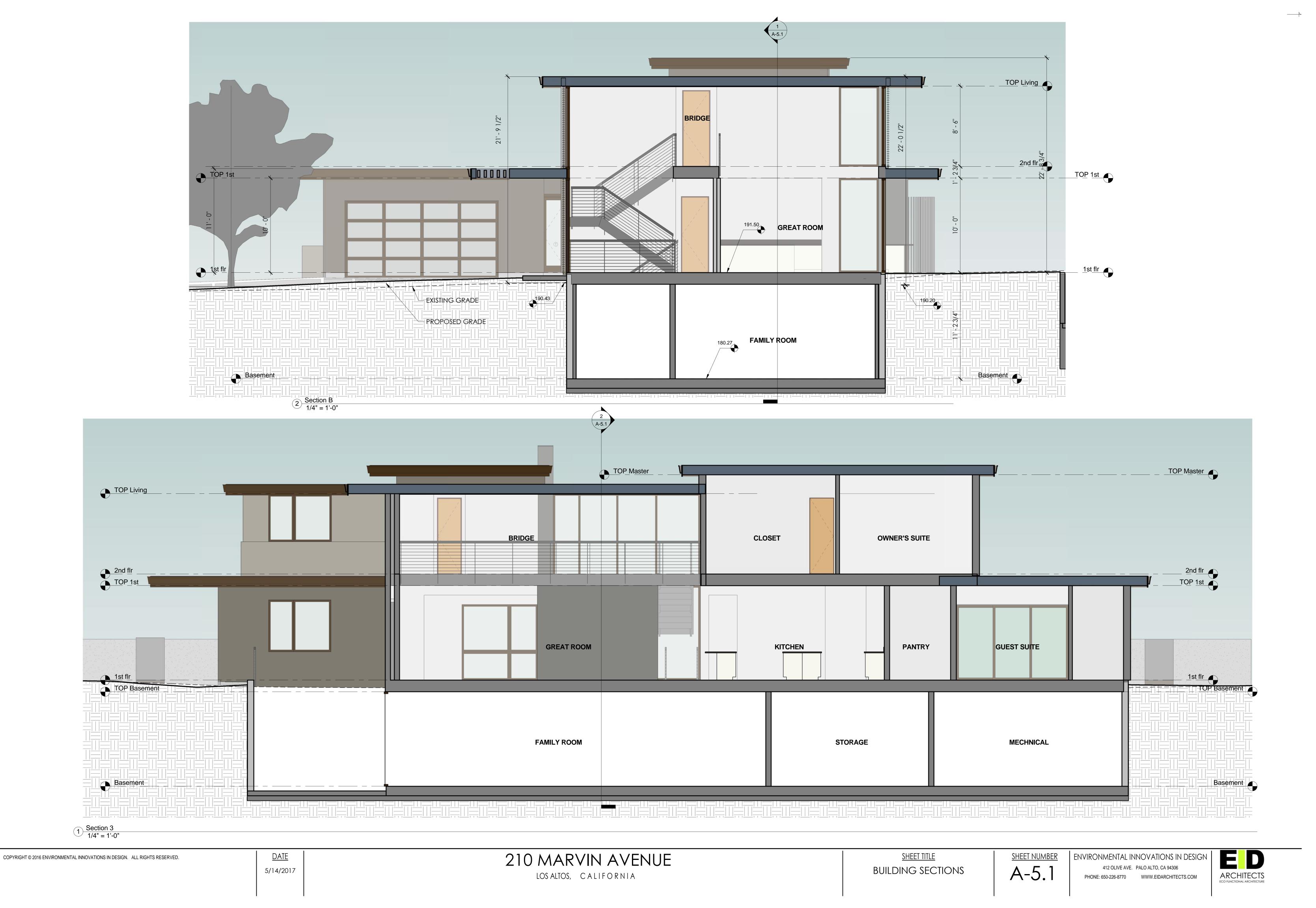
West Elevation B&W

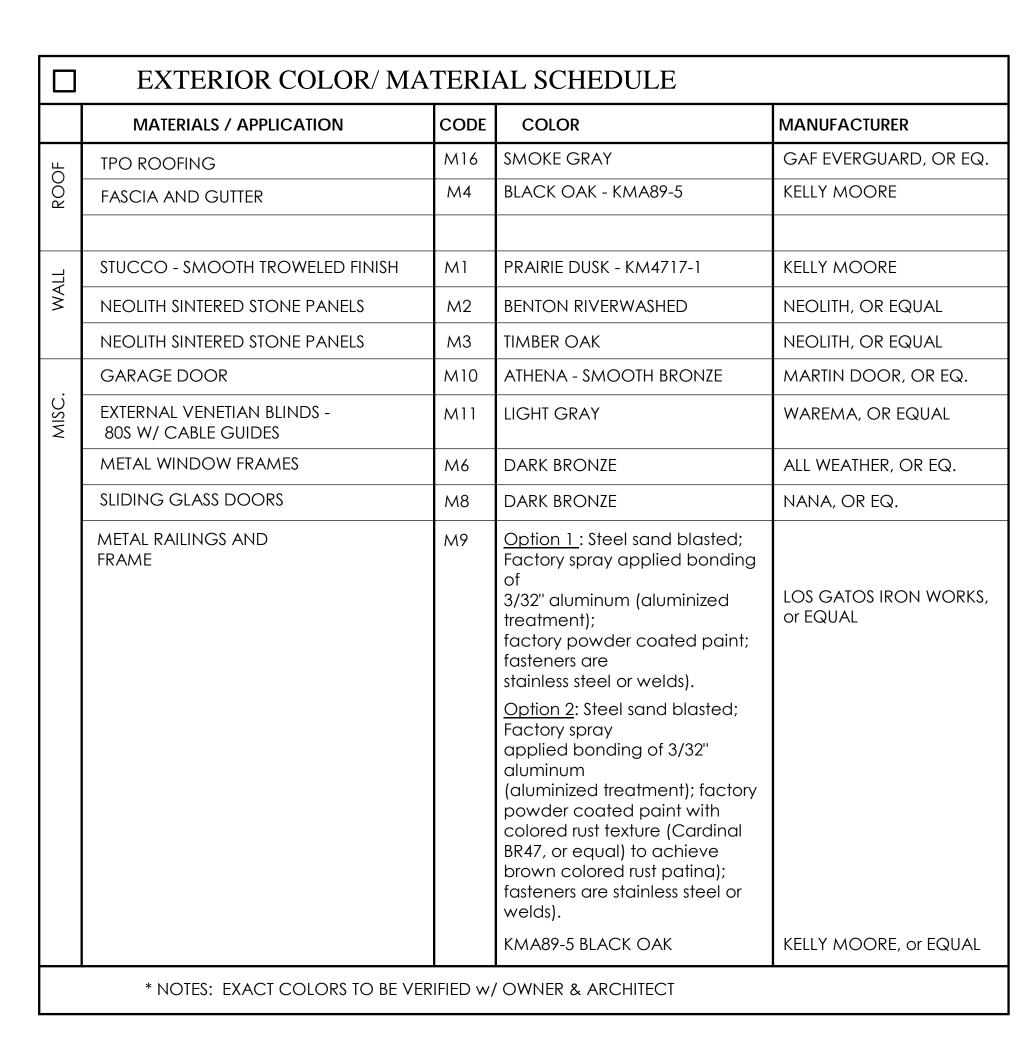
1/4" = 1'-0"

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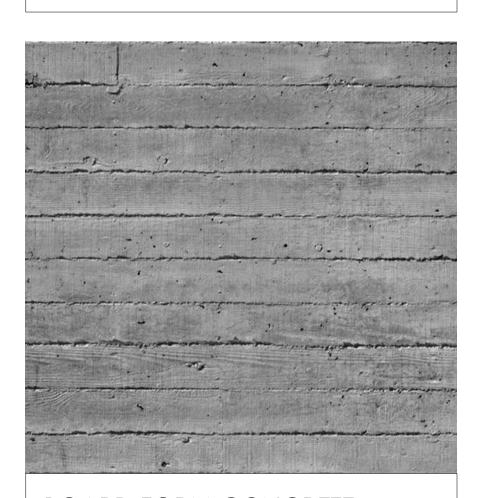












BOARD FORM CONCRETE



BACKLIT ADDRESS NUMBER



CONCRETE PAVERS & PLANTERS



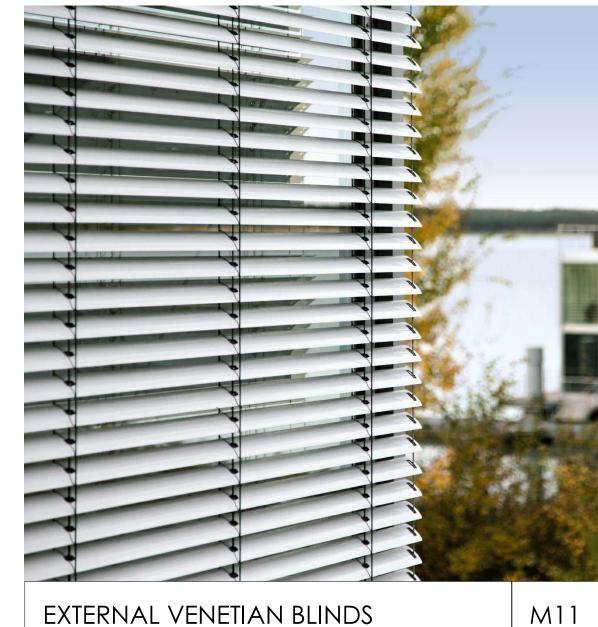
TPO ROOFING - SLATE GRAY



GARAGE DOOR M10



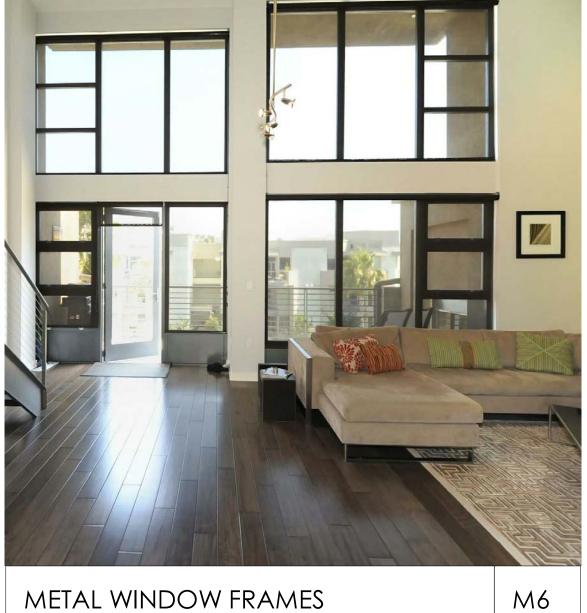
NANA GLASS DOOR



M16



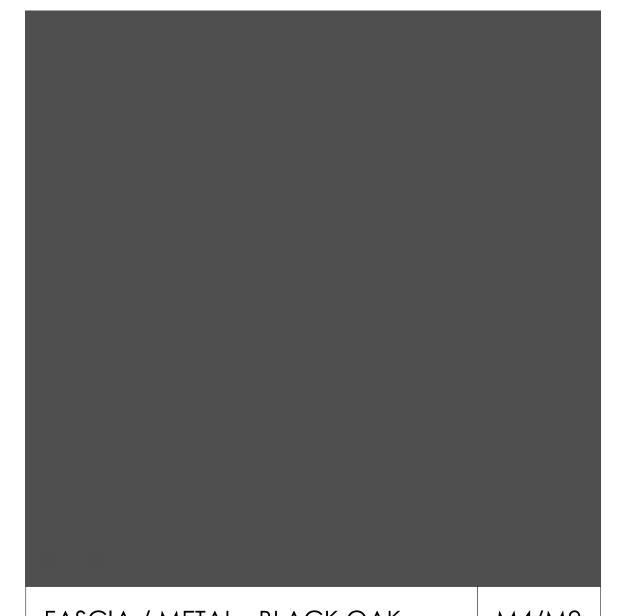
NEOLITH SIDING - TIMBER OAK



METAL WINDOW FRAMES



BENTON RIVERWASHED



FASCIA / METAL - BLACK OAK

M4/M9



М3

ABBREVIATIONS

FLOW DIRECTION

BENCHMARK

CONTOURS

DEMOLISH/REMOVE

TREE TO BE REMOVED

AGGREGATE BASE LINEAR FEET ASPHALT CONCRETE MAXIMUM ACCESSIBLE MANHOLE AREA DRAIN MINIMUM BEGINNING OF CURVE MONUMENT **BEARING & DISTANCE** (N) NO. NTS O.C. NEW BENCHMARK **NUMBER** BOTTOM OF WALL/FINISH NOT TO SCALE ON CENTER CATCH BASIN OVER CURB AND GUTTER PLANTING AREA CENTER LINE PEDESTRIAN CORRUGATED PLASTIC PIPE POST INDICATOR VALVE (SMOOTH INTERIOR) PUBLIC SERVICES EASEMENT ČLEANOUT PROPERTY LINE CLEANOUT TO GRADE POWER POLE CONC CONCRETE PUBLIC UTILITY EASEMENT CONST CONSTRUCT or -TION POLYVINYL CHLORIDE CONC COR CONCRETE CORNER CUBIC YARD REINFORCED CONCRETE PIPE DIAMETER RIM ELEVATION DROP INLET RAINWATER DUCTILE IRON PIPE R/W RIGHT OF WAY SLOPE END OF CURVE SEE ARCHITECTURAL DRAWINGS **EXISTING GRADE ELEVATIONS** STORM DRAIN EDGE OF PAVEMENT **SDMH** STORM DRAIN MANHOLE **EQUIPMENT** SHT EACH WAY S.L.D. SEE LANDSCAPE DRAWINGS **EXISTING SPEC** SPECIFICATION FACE OF CURB SANITARY SEWER FINISHED FLOOR SSCO SSMH SANITARY SEWER CLEANOUT FINISHED GRADE SANITARY SEWER MANHOLE FIRE HYDRANT STREET FLOW LINE STATION FINISHED SURFACE STD STANDARD STRUCT STRUCTURAL GAGE OR GAUGE TELEPHONE GRADE BREAK TOP OF CURB HIGH DENSITY CORRUGATED TEMP TP **TEMPORARY** POLYETHYLENE PIPE TOP OF PAVEMENT HORIZONTAL TW/FG TOP OF WALL/FINISH GRADE HIGH POINT HUB & TACK VERTICAL CURVE INSIDE DIAMETER

VCP

VERT

INVERT ELEVATION

JOINT UTILITY POLE

JUNCTION BOX

JOINT TRENCH

LENGTH

LANDING

LNDG

VITRIFIED CLAY PIPE

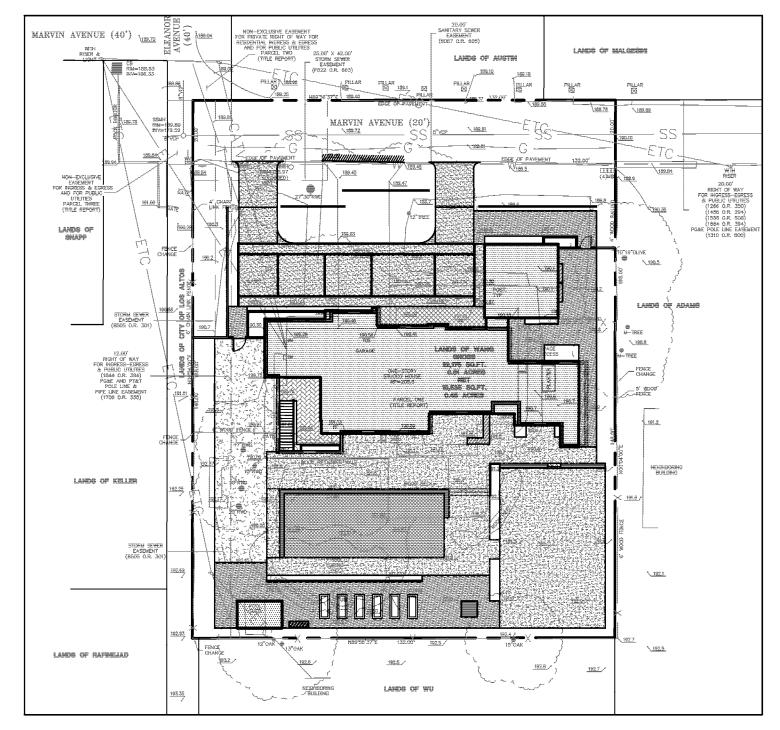
WELDED WIRE FABRIC

VERTICAL

WATER LINE

WATER METER

WANG RESIDENCE 210 MARVIN AVENUE LOS ALTOS, CALIFORNIA



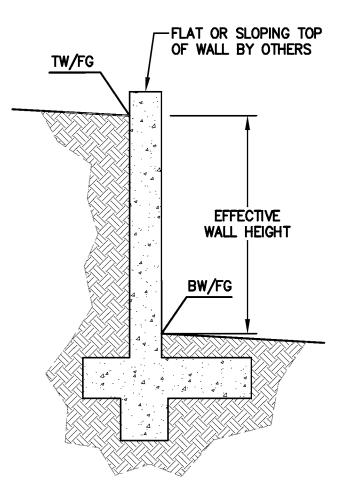
KEY MAP 1" = 30'

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.
- 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
- 5. 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.

CUBIC YARDS	WITHIN BUILDING FOOTPRINT	OUTSIDE BUILDING FOOTPRINT	TOTAL CUBIC YARDS
CUT	1400	20	1400
FILL	0	40	40
EXPORT			1360
NOTE:			

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.



FOR CONSTRUCTION STAKING

SCHEDULING OR QUOTATIONS

PLEASE CONTACT GREG BRAZE

AT LEA & BRAZE ENGINEERING

(510)887-4086 EXT 116.

aabaya@leabraze.com

NOTES

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

UNDERGROUND UTILITY LOCATION IS BASED ON SURFACE EVIDENCE.

> BUILDING FOOTPRINTS ARE SHOWN AT GROUND LEVEL.

FINISH FLOOR ELEVATIONS ARE TAKEN AT DOOR THRESHOLD (EXTERIOR).

EASEMENT NOTE

EASEMENT SHOWN ARE PER TITLE REPORT PREPARED BY OLD REPUBLIC TITLE COMPANY, ORDER NO. 0623013136-LM, DATED NOVEMBER 3, 2016.

BENCHMARK

SANTA CLARA VALLEY DISTRICT BM972 USCGS BRASS DISK (C884 1954); 3-1/2 INCH DIAMETER, SET VERTICALLY IN SOUTHWEST CONCRETE WALL OF BUILDING AT 169 STATE STREET ON SOUTHEASTERLY CORNER OF INTERSECTION OF THIRD AND STATE STREET. CITY OF LOS ALTOS. ELEVATION = 185.61'(NAVD 88 DATUM)

SITE BENCHMARK

SURVEY CONTROL POINT MAG AND SHINER SET IN ASPHALT ELEVATION = 189.85'(NAVD 88 DATUM)

* BUILDING PAD NOTE: ADJUST PAD LEVEL AS

FOR SLAB SECTION OR

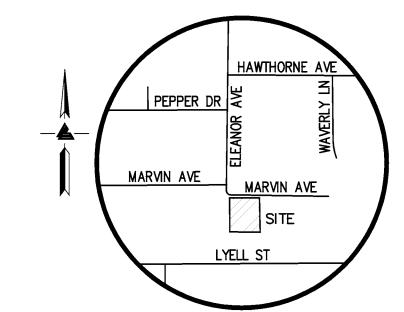
REQUIRED. REFER TO

CRAWL SPACE DEPTH

TO ESTABLISH PAD

LEVEL.

STRUCTURAL PLANS



VICINITY MAP

OWNERS' INFORMATION

ALICE & JOHNNY WANG 210 MARVIN AVENUE LOS ALTOS, CA 94022

APN: 170-27-038

REFERENCES

- THIS GRADING AND DRAINAGE PLAN IS SUPPLEMENTAL TO: 1. TOPOGRAPHIC SURVEY BY LEA & BRAZE ENGINEERING, INC. ENTITLED: "TOPOGRAPHIC SURVEY 210 MARVIN AVENUE LOS ALTOS, CA **DATED: 2161191** JOB#: 2161191
- 2. SITE PLAN BY EID ARCHITECTS ENTITLED: "210 MARVIN AVENUE" 210 MARVIN AVENUE LOS ALTOS, CA DATED: 3-20-17
- 3. SOIL REPORT BY XXXX ENTITLED: "GEOTECHNICAL INVESTIGATION" 210 MARVIN AVENUE LOS ALTOS, CA DATED:

DATED: 3-20-17

4. LANDSCAPE PLAN BY ZAC LANDSCAPE ARCHITECTS "210 MARVIN AVENUE" 210 MARVIN AVENUE LOS ALTOS, CA

THE CONTRACTOR SHALL REFER TO THE ABOVE NOTED SURVEY AND PLAN, AND SHALL VERIFY BOTH EXISTING AND PROPOSED ITEMS ACCORDING TO THEM.

INSPECTIONS REQUIRED

LEA & BRAZE ENGINEERING, INC. TO INSPECT ALL STORM DRAINAGE AS IT IS INSTALLED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT LEA & BRAZE ENGINEERING. INC. PRIOR TO START OF CONSTRUCTION TO SET UP A PRE-CONSTRUCTION MEETING, AND TO CALL AT LEAST 48 HOURS IN ADVANCE OF ANY INSPECTIONS. PIPES ARE TO REMAIN UNCOVERED UNTIL AN INSPECTION PERFORMED BY LEA & BRAZE ENGINEERING, INC. OCCURS.

POINT OF CONTACT: PETER CARLINO LEA & BRAZE ENGINEERING, INC. (510)887-4086 pcarlino@leabraze.com

CONTRACTOR SHALL OBTAIN THE PROPER PERMITS PRIOR TO ANY GRADING.

A SEPARATE PERMIT IS REQUIRED FOR ANY & ALL WORK WITHIN THE CITY RIGHT-OF-WAY. THE CONTRACTOR(S) SHALL OBTAIN AN APPROVED STREET WORK (ENCROACHMENT PERMIT) PERMIT FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO THE COMMENCEMENT OF THIS WORK WITHIN THE CITY RIGHT-OF-WAY. ALL GRADED SLOPES SHALL BE PLANTED WITH FAST GROWING, DEEP ROOTED GROUND COVER TO REDUCE THE EROSION DURING HEAVY RAINS.

REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION, INCLUDING BUT NOT LIMITED TO: ADDITIONAL UTILITY SERVICES, DIMENSION CONTROL, DEMOLITION, DETAILS, TREE PROTECTION MEASURES, AND LANDSCAPING.

FINISHED GRADE ELEVATIONS NOTED AS [FG (MAX.)] ARE THE MAXIMUM ALLOWABLE GRADE AT THE BUILDING PERIMETER TO PROVIDE 6" MIN CLEAR TO GRADE PER U.B.C. SECTION 2317.8. THESE GRADES MAY BE LOWER PROVIDED PROPER FLOW AWAY FROM THE FOUNDATION IS ACHIEVED. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR SPECIAL DETAILS AS REQUIRED.

CONTRACTOR SHALL NOTIFY THE OWNER AND/OR MAINTENANCE STAFF IN WRITING OF THE NEED OF PERIODIC MAINTENANCE OF THE DRAINAGE SYSTEM AND

SHEET INDEX

C - 2.0GRADING & DRAINAGE PLAN C - 3.0UTILITY PLAN C - 4.0GRADING SPECIFICATIONS

C - 1.0TITLE SHEET

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06-29-17 REVISIONS JOB NO: 2170141 3-30-17

1" = 30'

01 OF 04 SHEETS

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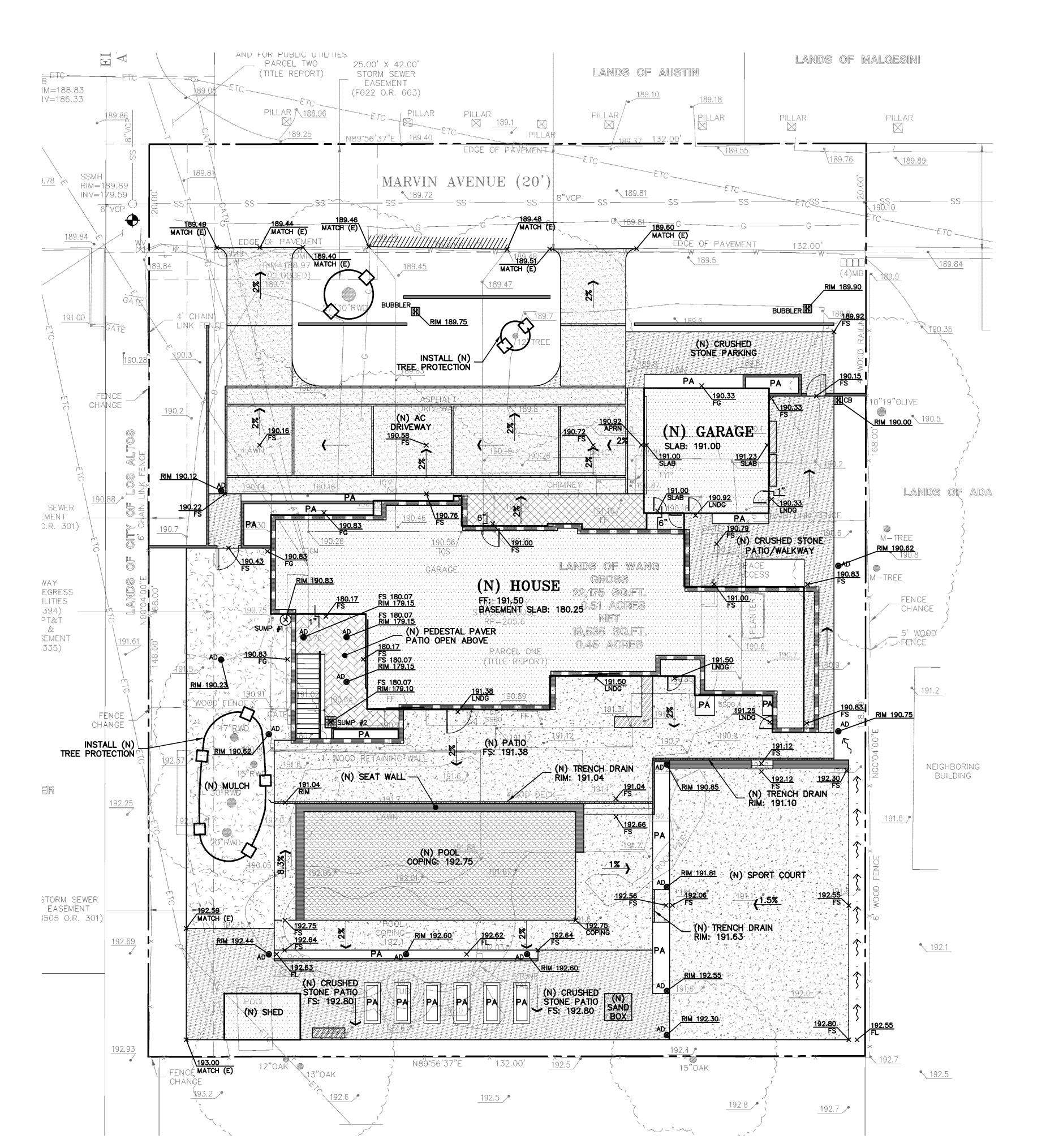
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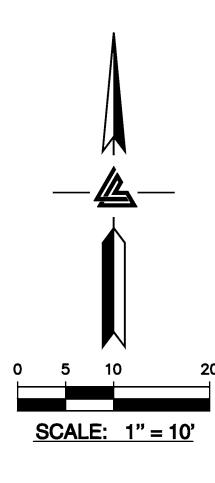
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FLATWORK

FINISHED GRADES AT BUILDING PERIMETER SHALL BE SLOPED AT A MINIMUM OF 5% FOR THE FIRST 10' AWAY FROM THE BUILDING PER CBC 1804.3 OR TO AN APPROVED DRAINAGE SWALE OR STRUCTURE. GRADES SHALL CONTINUE TO SLOPE TOWARDS POSITIVE DRAINAGE AND A POSITIVE OUTFALL. MAINTAIN 8" CLEARANCE BETWEEN FINISH EARTHEN GRADE AND BOTTOM OF MUD SILL AT ALL TIMES PER CBC 2304.11.2 UNLESS STRUCTURAL DETAILING ALLOWS LESS. REFER TO STRUCTURAL PLANS FOR FOUNDATION DESIGN AND DETAILS.

SLOPE GARAGE SLAB 1% MINIMUM (1/8" PER FOOT) FROM BACK TO FRONT TO ALLOW FOR ADEQUATE DRAINAGE. MAINTAIN 1/2" TO 1" LIP BETWEEN GARAGE SLAB AND DRIVEWAY. SEE PLANS FOR SPECIFIC DROP

PROVIDE 2% (1% MIN.) SLOPE ACROSS FLAT WORK AND/OR PAVING PER CBC 2304.11.2. SLOPE TOWARDS POSITIVE DRAINAGE AS SHOWN ON PLAN.

- (N) AC DRIVEWAY. GRIND AC TO TIE (N) AC INTO (E) AC PAVING.
- (N) CRUSHED STONE DRIVEWAY.
- (N) CRUSHED STONE PATIOS/WALKWAYS.
- (N) CONCRETE PATIOS/WALKWAYS.
- (N) CONCRETE PATIO IN POOL AREA.

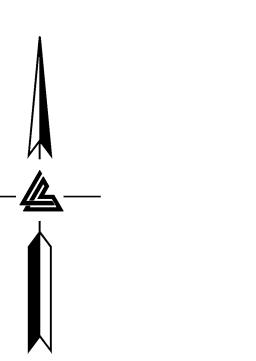
DEMOLITION

DEMOLISH (E) IMPROVEMENTS AS NECESSARY TO ACCOMMODATE (N) CONSTRUCTION. NO DEMOLITION SHALL COMMENCE WITHOUT REQUIRED DEMOLITION PERMITS.

REMOVE (E) TREE. CONTRACTOR SHALL OBTAIN THE PROPER TREE REMOVAL PERMITS AS REQUIRED.

NOTE: FOR CONSTRUCTION STAKING **SCHEDULING OR QUOTATIONS PLEASE CONTACT ALEX ABAYA** AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116.

* BUILDING PAD NOTE: ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.



SCALE: 1" = 10

STORM DRAIN

INSTALL (N) ON-SITE STORM DRAIN SYSTEM. USE MINIMUM 12" 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 CLEAN OUT TO GRADE AT MAJOR CHANGES IN DIRECTION. AVOID USING 90° BENDS AND INSTEAD USE (2) 45° BENDS AND WYE CONNECTIONS.

INSTALL (N) 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.

CONSTRUCT (N) EARTHEN SWALE SLOPED AT 1% MINIMUM TOWARDS POSITIVE OUTFALL.

DIRECT DOWNSPOUTS TO 24" LONG PRECAST CONCRETE SPLASHBLOCKS OR OTHER HARD SURFACE. DIRECT AWAY FROM ANY STRUCTURE AND TOWARDS POSITIVE DRAINAGE.

INSTALL (N) "CHRISTY FO8" AREA DRAINS. CONNECT TO ON-SITE STORM DRÁIN SYSTEM.

INSTALL (N) 4" DIAMETER BRASS ATRIUM GRATE IN LANDSCAPE OR PLANTER AREAS (NDS PART 78B OR 90B FOR 6" DIAMETER BRASS ATRIUM GRATE). DO NOT USE PLASTIC GRATES.

INSTALL (N) "CHRISTY V-12" CATCH BASIN W/ CONCRETE BOTTOM FLUSH W/ LOWEST OUTGOING INVERT. PLACE BOX ON 6" CLASS 2

INSTALL (N) BUBBLER BOX.

SLOT DRAINS SHALL BE 4" NDS "MICRO OR MINI" PRESLOPED TRENCH DRAINS OR APPROVED EQUAL. CONNECT TO NEAREST STORM DRAIN LINE VIA 4" PVC TIGHTLINE.

PROVIDE LAWN SUBDRAIN SYSTEM. CONNECT TO STORM DRAIN SYSTEM AS SHOWN.

INSTALL (N) SUMP PUMP #1 FOR SUBDRAIN SYSTEM.

INSTALL (N) SUMP PUMP #2 FOR LIGHTWELL DRAINAGE.

UTILITIES

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.

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.

INSTALL (N) JOINT TRENCH FOR SERVICES INCLUDING GAS, CATV & ELECTRIC FROM NEAREST POINT OF CONNECTION. DESIGN BY OTHERS.

CONTRACTOR SHALL FIELD VERIFY LOCATIONS & DEPTHS OF EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER OF CONFLICTS IF ANY EXIST.

SEE ARCHITECTURAL DETAILS FOR INTERNAL BASEMENT SEWER EJECTOR LOCATION TO PUMP BASEMENT FIXTURES TO MAIN FF TO GRAVITY MAIN TO MAIN SS.

NOTE: FOR CONSTRUCTION STAKING **SCHEDULING OR QUOTATIONS** PLEASE CONTACT ALEX ABAYA AT LEA & BRAZE ENGINEERING (510)887-4086 EXT 116. aabaya@leabraze.com

* BUILDING PAD NOTE: ADJUST PAD LEVEL AS REQUIRED. REFER TO STRUCTURAL PLANS FOR SLAB SECTION OR CRAWL SPACE DEPTH TO ESTABLISH PAD LEVEL.



SIDENCE IN AVENUE CALIFORNIA A

06-29-17 REVISIONS JOB NO: 2170141 DATE: 3-30-17

SCALE: 1" = 10'

DESIGN BY: PC/TB DRAWN BY: TB SHEET NO:

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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
- 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.

<u>GENERAL</u>

- A. ALL SITE GRADING AND EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS OF THESE SPECIFICATIONS, THE SOILS REPORT AND THE CITY OF LOS ALTOS' 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 TEST 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.

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.

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

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

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.

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.

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-DEFENDANTS 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. <u>INDEMNITY</u>

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.

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

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 COUNTY 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

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
- 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 COUNTY 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 COUNTY 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. <u>CLEANUP</u>

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

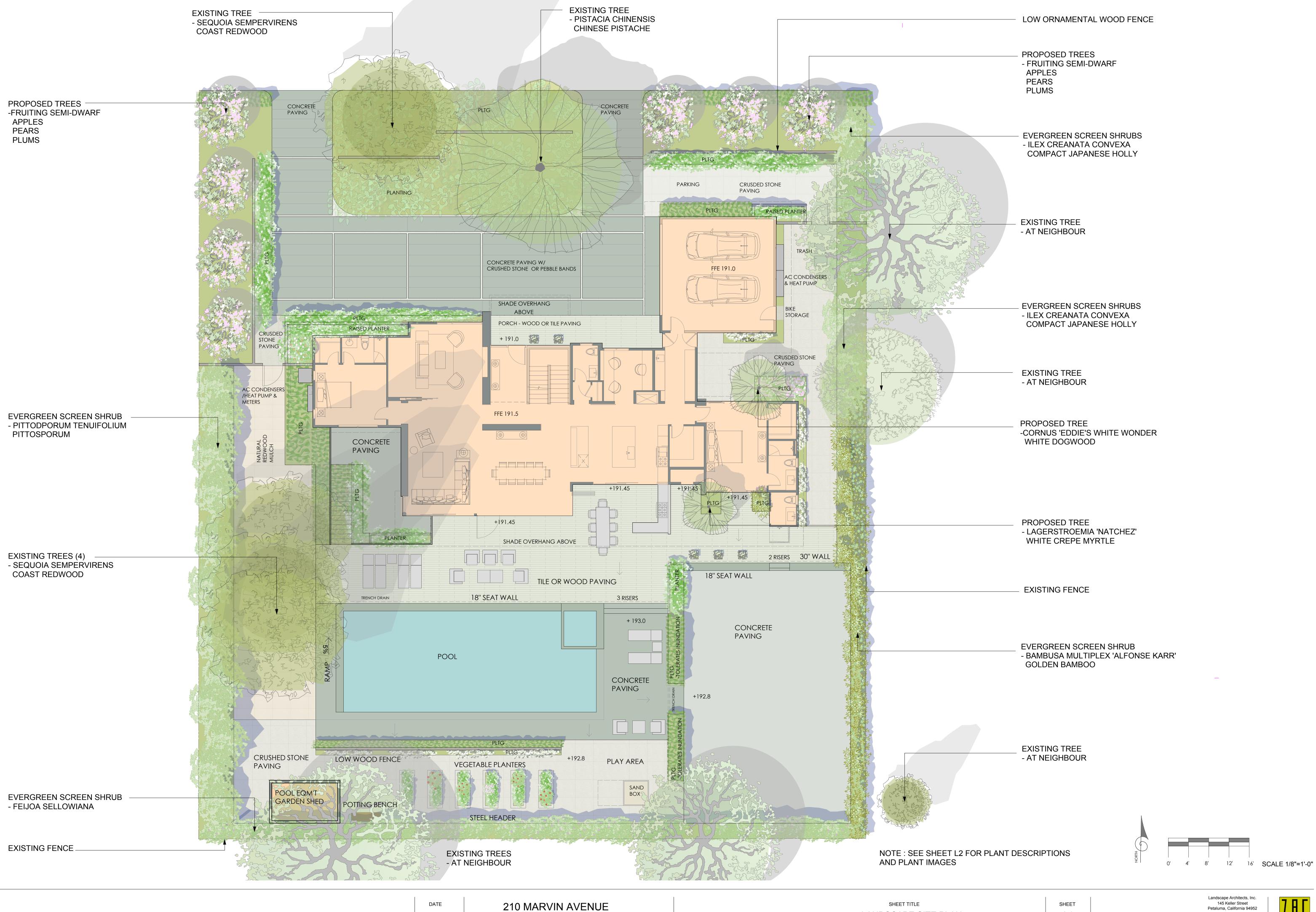
> NOTE:
> THESE NOTES ARE INTENDED TO BE USED AS A GENERAL GUIDELINE. THE REFERENCED SOILS REPORT FOR THE PROJECT AND GOVERNING AGENCY GRADING ORDINANCE SHALL SUPERSEDE THESE NOTES. THE SOILS ENGINEER MAY MAKE ON-SITE RECOMMENDATIONS DURING GRADING OPERATIONS.



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