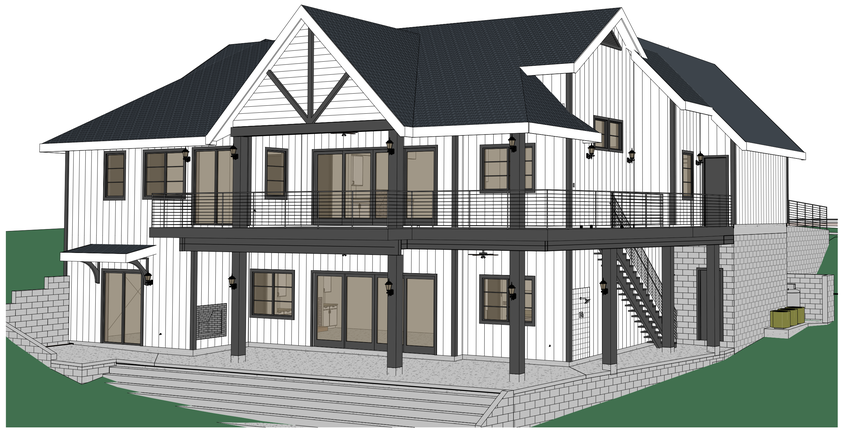
Proposed SFR & ADU For:

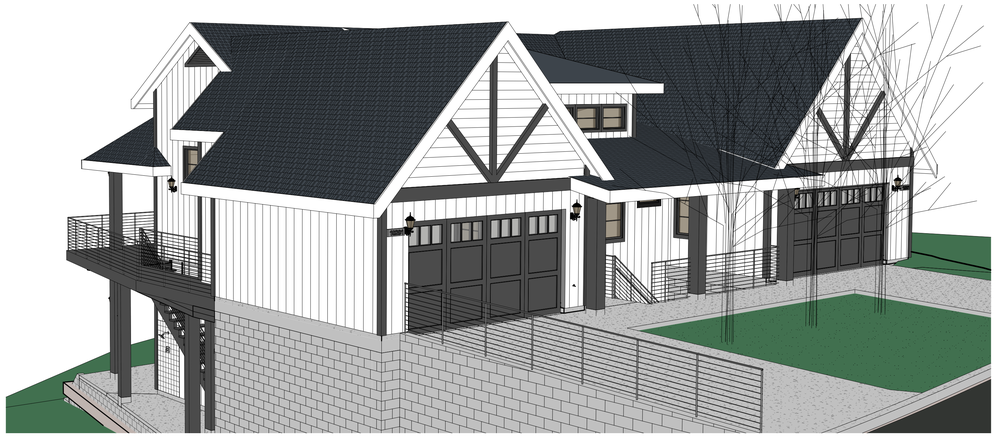
Russo Lake House

22412 San Joaquin Drive West, Canyon Lake, CA 92587

ANDRESEN ARCHITECTURE INC.
17087 ORANGE WAY, FONTANA, CA 92335 (909) 355-6688



Rear View



Front View

Project Information

OWNER:	SERINNA & KYLE EASON 23184 CANYON LAKE DRIVE SOUTH CANYON LAKE, CA 92587 (909) 632-6266 serinna.russo22@gmail.com
PROJECT ADDRESS:	22412 SAN JOAQUIN DRIVE WEST CANYON LAKE, CA 92587
ARCHITECT:	ANDRESEN ARCHITECTURE, INC. 17087 ORANGE WAY FONTANA, CA 92335 (909) 355-6688
CONTACT:	DOUG ANDRESEN doug.andresen@aaifirm.com
CIVIL ENGINEER:	MASSOUD GHIAM 24 OAKHURST RD IRVINE, CA 92620 (949) 307-5410 massoudg98@yahoo.com

Building Data

APN:	353-111-010
ZONING:	R-1
OCCUPANCY:	GROUP R-3 / U
CONSTRUCTION:	V-B
FIRE SPRINKLERS:	REQUIRED
LEGAL DESCRIPTION:	LOT 187, TRACT 3718
PROJECT DESCRIPTION:	PROPOSED SFR WITH ATTACHED ADU

Plan Notes

2-10	PROPERTY LINE
2-36	PROPOSED TWO-STORY SINGLE FAMILY RESIDENCE
2-240	NEW 4" THICK CONCRETE DRIVEWAY WITH #3 BARS AT 18" ON CENTER EACH WAY IN CENTER OF SLAB.
2-251	EXISTING CONCRETE CURB, GUTTER TO REMAIN
2-504	LANDSCAPING AREA
3-65	3-1/2" THICK CONCRETE SLAB ON GRADE WITH MEDIUM BROOM FINISH. SLOPE 1/8" PER FOOT MINIMUM AWAY FROM BUILDING. PROVIDE A LANDING AT ALL DOORS A MINIMUM OF 2" BEYOND EACH SIDE OF DOOR AND A MINIMUM OF 3'-0" OUT FROM FACE OF DOOR.
3-840	CONCRETE STEPS (7 3/4" MAXIMUM RISERS, 10" MINIMUM TREADS)
4-10	8" x 8" x 16" CONCRETE BLOCK (SOLID GROUT ALL CELLS WITH REINFORCING) RETAINING WALL PER STRUCTURAL
15-871	CONDENSING UNIT. PROVIDE 3-1/2" THICK POLYETHYLENE PAD EXTENDED 3" MINIMUM ABOVE GROUND PER U.M.C.

General Notes

Number	*Note*
1	LUMBER SHALL BE GRADE STAMPED AND CONFORM TO THE FOLLOWING MINIMUM STANDARDS: A) STRUCTURAL LUMBER TO BE WEST COAST DOUG FIR NO. 2 OR BETTER (UNLESS NOTED OTHERWISE) THIS INCLUDES BEAMS, HEADERS, BLOCKING, DIAGONALBRACES, PLATFORMS, STRINGERS, JOISTS, RAFTERS AND POSTS. (BEAMS 4 x 12 AND LARGER TO BE DOUG FIR #1 & BTR.) B) STUDS MAY BE "CONSTRUCTION GRADE" DOUGLAS FIR OR #1 & BETTER. C) TOP PLATES MAY BE "CONSTRUCTION GRADE" HEM FIR OR DOUGLAS FIR. D) SILL PLATES IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED "WOLMANIZED" OR FOUNDATION GRADE REDWOOD E) TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT,DRILLED, NOTCHED, OR OTHERWISE ALTERED IN ANY WAY WITHOUT WRITTEN CONCURRENCE AND APPROVAL OF A REGISTERED DESIGN PROFESSIONAL
2	STRUCTURAL CONNECTOR REFERENCES ARE TO "SIMPSON STRONG-TIE" CONNECTORS ICC APPROVED
3	NO STRUCTURAL MEMBER SHALL BE SERIOUSLY WEAKENED OR IMPAIRED BY CUTTING OR NOTCHING
4	CONSTRUCTION OF THIS PROJECT SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MODIFIED VERSION (TITLE 24, 2018 EDITION) OF THE FOLLOWING CODES: 2019 CALIFORNIA RESIDENTIAL CODE, (2018 IBC) 2019 CALIFORNIA PLUMBING CODE, (2018 UPC) 2019 CALIFORNIA MECHANICAL CODE, (2018 UMC) 2019 CALIFORNIA ELECTRICAL CODE (2018 NEC) 2019 CALIFORNIA FIRE CODE, (2018 IFC). 2018 CALIFORNIA ENERGY CODE "AMERICANS WITH DISABILITIES ACT" (ADA) HEALTH AND SAFETY CODE (HSC), SECTION 13145 CALIFORNIA CODE OF REGULATIONS (CCR) TITLE 24 2019 CAC ALL OTHER APPLICABLE LAWS AND REGULATIONS
5	DRAINAGE PIPING IN THE GROUND SHALL BE LAID ON A FIRM BED FOR ITS ENTIRE LENGTH AND BACKFILLED IN THIN LAYERS TO 12" ABOVE TOP OF PIPE WITH CLEAN EARTH, FREE FROM STONES AND BOULDERS. DRAIN PIPE SHALL BE A MINIMUM OF 3" DIAMETER WITH 2% MIN. SLOPE.
6	OFFSET PLUMBING OUT OF BEARING FOOTINGS.
7	FIXTURES, DEVICES AND EQUIPMENT SHALL COMPLY WITH APPLICABLE CEC REGULATIONS.
8	FASTENERS FOR PRESERVATIVE TREATED AND FIRE-RETARDANT-TREATED WOOD SHALL BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A 153. FASTENERS OTHER THAN NAILS, TIMBER RIVETS WOOD SCREWS AND LAG SCREWS SHALL BE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS IN ACCORDANCE WITH ASTM B 695, CLASS 55 MINIMUM.
9	THE MANUFACTURED WINDOWS SHALL HAVE A LABEL ATTACHED CERTIFIED BY THE NATIONAL FENESTRATION RATING COUNCIL (NFRC) AND SHOWING COMPLIANCE WITH THE ENERGY CALCULATIONS.
10	APPROVAL OF THESE PLANS BY THE BUILDING DEPARTMENT DOES NOT INCLUDE APPROVAL FOR ANY TYPE OF ALARM SYSTEM THAT MAY BE SHOWN OR REQUIRED. SEPARATE APPROVALS FOR ANY ALARM SYSTEMS MUST BE OBTAINED.
11	ALL STEEL REINFORCEMENT TO COMPLY WITH ASTM-615, GRADE 40 AND 60
12	WALLS AND FENCES ARE TO BE REVIEWED UNDER SEPARATE PERMIT APPLICATION (NOT A PART OF THIS PROJECT)

Deferred Submittal Items

No.	*Item*
1	SITE ITEMS (SCREEN WALLS, FENCE AND GATES, POOLS, SPAS & ACCESSORY STRUCTURES)
2	FIRE ALARM SYSTEM (IF REQUIRED)
3	TRUSS DESIGN AND CALC. (TRUSS PLANS AND TRUSS CALCULATION SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT OF RECORD. THE ENGINEER OF RECORD SHALL EITHER STAMP THE TRUSS PLAN OR ISSUE A LETTER OF ACCEPTANCE PRIOR TO SUBMITTAL TO BUILDING DEPARTMENT. ALL DRAG LOADS AND UPLIFT FORCES SHALL BE ACCOUNTED FOR.)

Special Inspections

Type of Construction	*Provided If Marked*		
	Test	*Continuous Inspection*	*Periodic Inspection*
Epoxy Adhesive			X
Shear Walls w/ fasteners spaced 4" O/C or less			X

STRUCTURAL OBSERVATION PER CBC 1704.5 IS REQUIRED FOR SEISMIC RESISTANCE AND WIND REQUIREMENTS. PRIOR TO COMMENCEMENT OF OBSERVATIONS, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT IDENTIFYING THE FREQUENCY AND EXTENT OF STRUCTURAL OBSERVATIONS. AT ATHE CONCLUSION OF THE WORK, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

Loading Conditions

ROOF LOAD

DEAD LOAD:		
COMPOSITION SHINGLES	4.5	PSF
SHTG	2.0	PSF
FRAMING	3.0	PSF
INSULATION	1.0	PSF
MISCELLANEOUS	7.0	PSF
GYP BOARD	2.5	PSF
TOTAL	20.0	PSF
LIVE LOAD:	20.0	PSF
W_1 =	**40.0**	**PSF**

INTERIOR WALLS

DEAD LOAD:		
GYP BOARD	4.0	PSF
FRAMING	2.0	PSF
TOTAL	6.0	PSF

LOADS FLOOR

DEAD LOAD:		
SHEATHING	2.0	PSF
GYP BOARD	2.0	PSF
MISCELLANEOUS	8.0	PSF
INSULATION	1.0	PSF
FRAMING	2.0	PSF
TOTAL	15.0	PSF
LIVE LOAD:	40.0	PSF
W_1 =	**55.0**	**PSF**

EXTERIOR WALLS

DEAD LOAD:		
STUCCO	10.0	PSF
GYP BOARD	2.0	PSF
MISC.	2.0	PSF
FRAMING	2.0	PSF
TOTAL	16.0	PSF

Second Floor Lateral Analysis (Seismic) ASCE 7-16 Section 12.8 Equivalent Lateral Force Procedure

3,900	*Floor Area - Including Overhangs (sf)*	
20	*Roof Weight (psf)*	
10	*Wall Height (ft.)*	
12	*Average Wall Weight (psf)*	
60	*Length of Building (ft) (North / South Direction)*	
68	*Length of Building (ft) (East /West Direction)*	
21	*Height of Building From This Floor to Ridge (ft)*	
250	*Length of All Walls (Interior & Exterior, one Direction - lf)*	
93,000 #	*Seismic Load (lbs)* 22,385 # *(Use V_1)*	*2d Flr Base Shear (psf)* 5.33 psf

First Floor Lateral Analysis (Seismic)

2,320	*Floor Area - Including Overhangs (sf)*	
15	*Floor Weight (psf)*	
12	*Wall Height (ft.)*	
12	*Average Wall Weight (psf)*	
60	*Length of Building (ft) (North / South Direction)*	
68	*Length of Building (ft) (East /West Direction)*	
34	*Height of Building From This Floor to Ridge (ft)*	
200	*Length of All Walls (Interior & Exterior, One Direction - lf)*	
63,600 #	*Seismic Load (lbs)* 7,987 # *(Use V_1)*	*1st Flr Base Shear (psf)* 3.20 psf

Lateral Load in N / S Direction	(lb)	(ft)	Fx (lbs)		ρ	EQ Shear (plf)
93,000	V_2	23 Hgt. (ft)	2,139,000	0.74	22,385 lbs.	1.30 346.44 plf
63,600	V_1	12 Hgt. (ft)	763,200	0.26	7,987 lbs.	1.30 123.61 plf
156,600			2,902,200		30,372 lbs.	

Lateral Load in E / W Direction	(lb)	(ft)	Fx (lbs)		ρ	EQ Shear (plf)
93,000	V_2	23 Hgt. (ft)	2,139,000	0.74	22,385 lbs.	1.30 305.68 plf
63,600	V_1	12 Hgt. (ft)	763,200	0.26	7,987 lbs.	1.30 109.07 plf
156,600			2,902,200		30,372 lbs.	

Seismic Base Shear

1.58	=	S_{DS}	*Ta = 1.20*	*1.89*	=	$S_{XS} = F_a * S_S$	1.26 = $S_{DS} = 2/3\ S_{XS}$
0.57	=	S_{D1}	*Fv = N/A*	*N/A*	=	$S_{X1} = F_v * S_1$	N/A = $S_{D1} = 2/3\ S_{X1}$
6.50	=	R		D	=	*Site Class*	D = SDC
0.20	=	$T_A = C_t * h_n^x$ *(Eq. 12.8-7)*		II	=	*Risk Category*	1.00 = I_E *Factor*
8.00	=	T_L = Long Period Transition *(Fig. 22-12)*					

ASCE 7-16 (Eq. 12.8-2)	$C_S = S_{DS} * I_E/R$	0.25 *GOVERNS*
ASCE 7-16 (Eq. 12.8-3)	C_S *MAX* $= S_{D1} * I_E/R*T$	6.70
ASCE 7-16 (Eq. 12.8-4)	$C_S = S_{D1} * T_L * I_E/R*T^2$	38.79 *Only occurs when Ta > T_L (N/A on this project)*
ASCE 7-16 (Eq. 12.8-5)	$C_S = 0.044 * S_{DS} * I_E$	0.555
ASCE 7-16 (Eq. 12.8-6)	$C_S = 0.5 * S_{D1} * I_E/R$	N/A

Two Story Lateral Analysis (Wind) ASCE 7-16 Section 28: Envelope Procedure

130	*Basic Wind Speed (mph) (Fig. 26.5-1)*		A	B	C	D
0.85	*Directionality Factor, Kd (Table 26.6-1)*		26.6	-7	17.7	-3.9
1.00	*Risk Factor, I (Table 1.5-2)*	*Eave Ht.*				
C	*Exposure Category (Sec. 26.7)*	10 ft			Second Floor	
1.00	*Topographic Factor, Kzt (Sec. 26.8)*	*Flr Hmg*				27 ft
9.5	*Terrain Exp. Constant, α (Table 26.9-1,*	1 ft				
1.35	*Adjustment Factor, λ (Sec. 26.8)*	12 ft			First Floor	
900	*Terrain Exposure Constant, Zg (feet)*					
0.85	*Gust Factor, G or Gf (Sec. 26.9)*				Hip Roof	
Enclosed	*Enclosure Classification (Sec. 26.10)*	*Eave Ht.*				
0.18	*Internal Pressure Coefficient, GCpi (Table 26.11-1)*	10 ft			Second Floor	
A,B,C, & D Above	*External Pressure Coefficient, Cp (Fig. 26.6-1)*	*Flr Hmg*				34 ft
See Below	*Design Wind Load, p = qGCp - qGCpi (Eq. 28-4.1)*	1 ft				
		12 ft			First Floor	

Building Data

8 :12	*Roof Slope (inches per foot)*
33.69	*Theta Θ (degrees)*
60	*North / South Dimension (ft)*
68	*East /West Dimension (ft)*
27	*Mean Roof Height, h (ft)*
12	*First Floor Plate Height (ft)*
10	*Second Floor Plate Height (ft)*
1	*Floor Depth (ft)*

North-South Direction — *Floor Diaphragm*

Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	5.00	24.98	124.92	97.43
Wall Below	7.00	21.28	148.97	116.20
Total (plf)				213.63

Hip Roof

Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	4.00	19.19	76.74	59.86
Wall Below	5.00	24.98	124.92	97.43
Total (plf)				157.30

Gable Roof

Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	4.00	24.98	99.93	77.95
Wall Below	5.00	24.98	124.92	97.43
Total (plf)				175.38

East-West Direction — *Gable Roof* — *Floor Diaphragm*

Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	5.00	25.21	126.06	98.32
Wall Below	7.00	21.48	150.33	117.26
Total (plf)				215.59

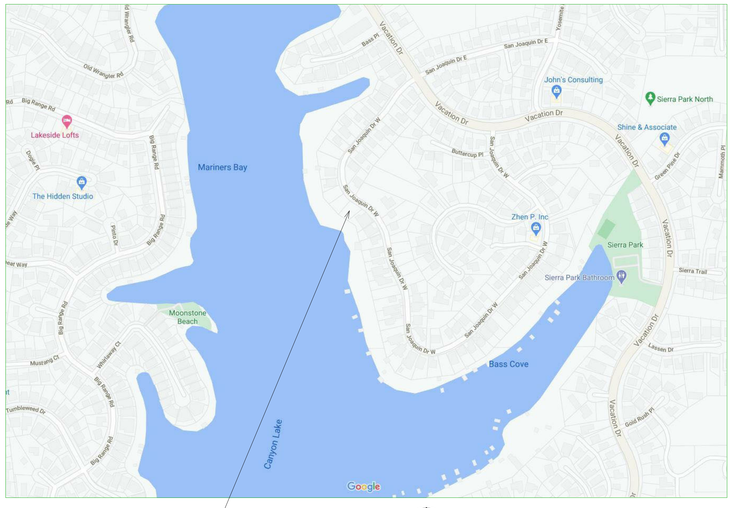
Hip Roof

Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	4.00	19.33	77.34	60.33
Wall Below	6.00	25.21	151.27	117.99
Total (plf)				178.31

Gable Roof

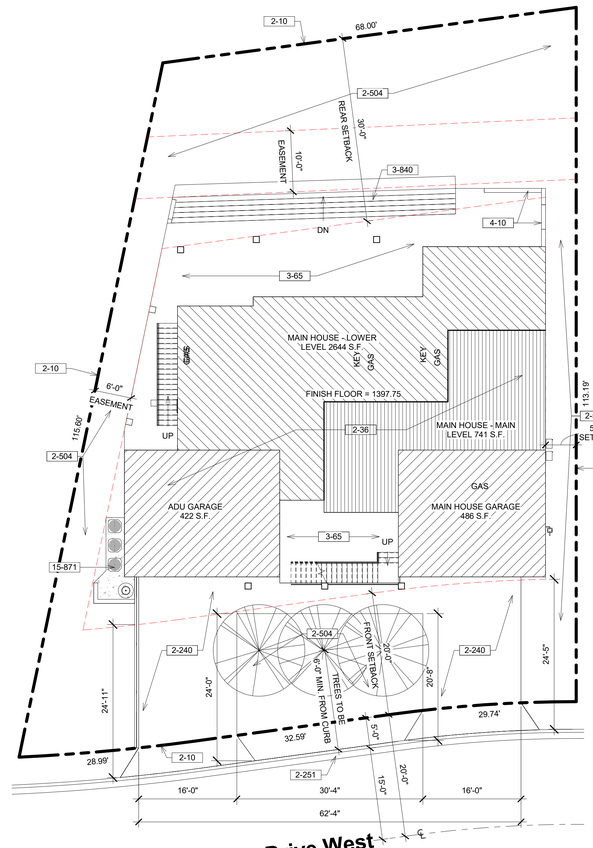
Location	*Trib.*	*Pressure*	*Load*	*Load %*
Wall Above	4.00	25.21	100.85	78.66
Wall Below	6.00	25.21	151.27	117.99
Total (plf)				196.65

When Alternative Basic Load Combination, Sec. 1605.3.2 is used, the wind load is magnified by 0.6ω = 0.78
Since all internal wind pressures for enclosed buildings act equally on all the internal surfaces (equally and in opposite directions) these pressures cancel each other out in the lateral directions only. Net uplift pressures acting on components to be analyzed and designed separately.



PROJECT SITE

Vicinity Map



Site Plan

1" = 10'-0"

NOTE:
SHOW A MINIMUM OF TWO 15 GALLON TREES PLANTED AT LEAST 6FT BACK FROM CURB.THE FRONT YARD SETBACK SHALL HAVE A MINIMUM OF 1/3 LANDSCAPE WHEN COMPARED TO THE TOTAL AREA WITH THE DRIVEWAY.

FRONT SETBACK COVERAGE

CONCRETE AREA:	887 SF
LANDSCAPE AREA:	1,310 SF
TOTAL AREA:	2,197 SF
LANDSCAPE AREA REQUIRED:	732 SF (1/3)
LANDSCAPE AREA PROVIDED:	1,310 SF

Area Schedule - SFR Non-Conditioned

Name	Area
Main Level F.F. Non-Conditioned	
Garage SFR	486 SF
Grand total	486 SF

Area Schedule - ADU Non-Conditioned

Name	Area
Non-Conditioned	
Garage ADU	422 SF
Grand total	422 SF

Area Schedule - Total Non-Conditioned Area

Name	Area
Main Level F.F. Non-Conditioned	
Garage SFR	486 SF
Garage ADU	422 SF
Grand total	908 SF

Area Schedule - SFR Conditioned

Name	Area
Lower Level F.F Conditioned	
Livable Space SFR	2644 SF
Main Level F.F. Conditioned	
Livable Space SFR	741 SF
Grand total: 2	3385 SF

Area Schedule - ADU Conditioned

Name	Area
Conditioned	
Livable Space ADU	1157 SF
Grand total	1157 SF

Area Schedule - Total Conditioned Area

Name	Area
Lower Level F.F Conditioned	
Livable Space SFR	2644 SF
	2644 SF
Main Level F.F. Conditioned	
Livable Space ADU	1157 SF
Livable Space SFR	741 SF
	1899 SF
Grand total	4542 SF

Sequence of Drawings

No.	*Description*
A-1	Site Plan
A-2	Title 24
A-2.1	T-24 Mandatory Measures
A-3	Main Level Floor Plan & Schedules
A-4	Lower Level Floor Plan
A-5	Foundation Plans
A-6	Framing Plan
A-7	Roof Framing Plan
A-8	Sections
A-9	Sections
A-10	Ext. Elevation & Int. Elevations
A-11	Ext. Elevations & Roof Plan
A-12	Main Level Electrical Plan
A-13	Lower Level Electrical Plan
D-1	Details
D-2	Details
D-3	Details
D-4	Details
D-5	Details
D-6	Details
SM1	Shear Max Details
SM2	Shear Max Details

Sequence of Drawings

No.	*Description*
N-1	General Notes
N-2	General Notes
N-3	General Notes
S1	Foundation Plan
S2	Floor Framing Plan
SCS	Structural Cover Sheet
SD1	Foundation Details
SD1.1	Foundation Details
SN1	Structural Notes
SN2	Structural Notes
1 of 2	Precise Grading Plans
2 of 2	Precise Grading Plans

Proposed SFR & ADU For:

Russo Lake House

22412 San Joaquin Drive West, Canyon Lake, CA 92587

9 Feb. 2021	1
19-3654	2
	3

LICENSED ARCHITECT — Douglas Andresen — C-14504 — 12-31-21 RENEWAL DATE — STATE OF CALIFORNIA

Site Plan

A-1

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