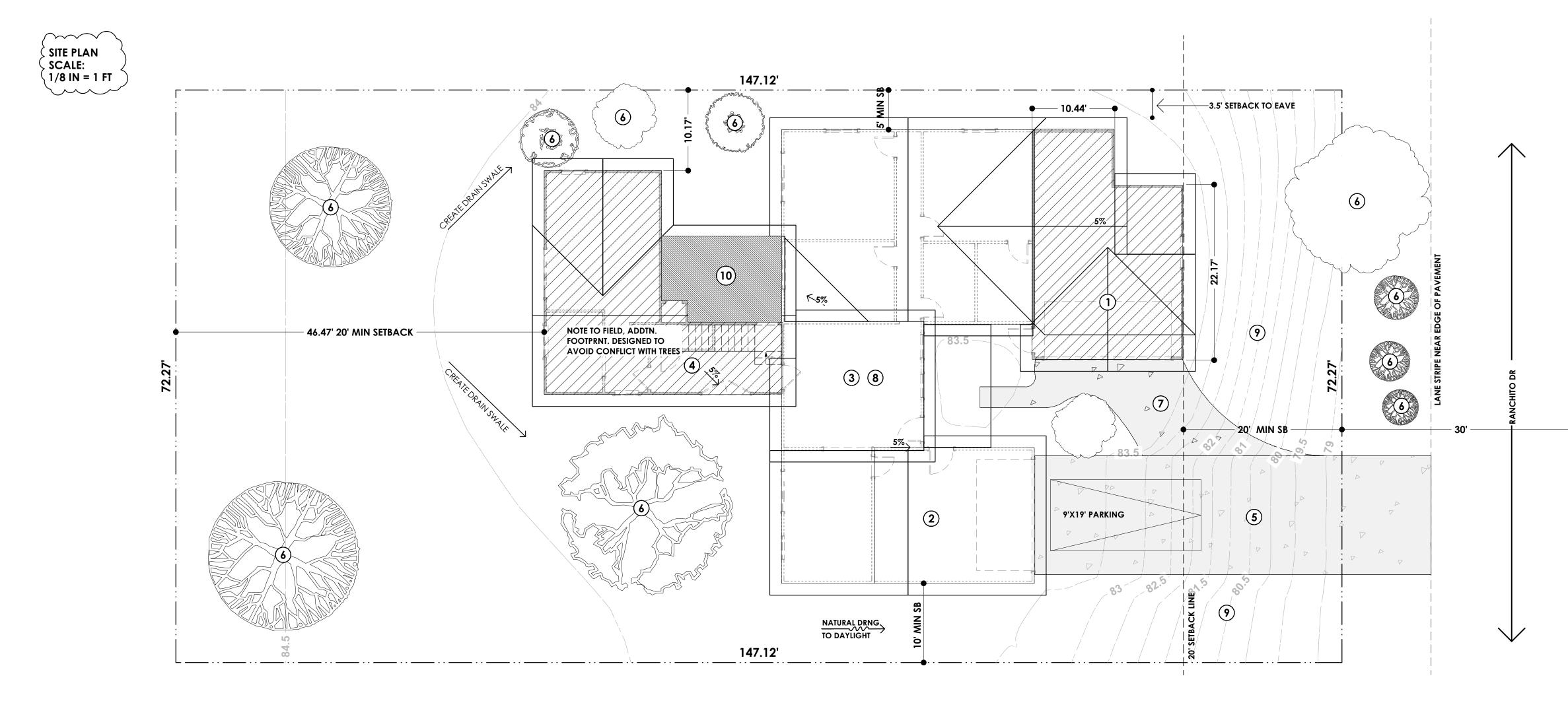
# **BARNETT ADDITION**

# COMMENTS

LABEL	TITLE
A-1	SITE PLAN
A-2	NORTH, SOUTH, WEST AND EAST ELEVATIONS
A-3	1ST FLOOR PLAN, 2ND FLOOR PLAN, EXISTING PLAN
A-4	FOUNDATION PLAN, CROSS SECTIONS, DETAILS
A-5	BRACED WALL PLANS, PORTAL FRAME DETAIL
A-6	FRAMING PLANS, NAILING SCHEDULE
E-1	ELECTRICAL PLAN
T24-1	TITLE 24 PAGE 1-2
CG-1	CAL-GREEN
CG-2	CAL-GREEN



R'S USE AND OCCUPANCY OF THE PROJECT. THE I	DRAWINGS AND SPECIFICATIONS SHALL N	NOT BE USED BY THE OWNER ON OTHER PROJECTS.

SITE PLAN NOTES:         CALLOUT SYMBOI:       Image: Collocation of the state of	CERLETTI AND KENNEDY DESIGN BUILD 2950 BUSKIRK AVE STE 300 WALNUT CREEK LIC. NO. 942024 (707) 561 6487
SUMMARY OF WORK         THE SCOPE OF THIS APPLICATION IS LIMITED TO THE CONSTRUCTION OF A NEW 2-STORY ADDITION AND 2-CAR GARAGE.         EXISTING PROPERTY IS 4 BEDS AND 2 BATH WHICH WILL BECOME A 6 BED 4 BATH SINGLE FAMILY UNIT ALL PROPOSED WORK TO CONFORM WITH CURRENT APPLICABLE CODES AND BUILDING STANDARDS.         CAL-GREEN MANDATORY MEASURES NOT A REQUIREMENT FOR THIS PROJECT         PROJECT DATA:         APPLICABLE         CONSTRUCTION TYPE:         VID         SITE CITY STATE ZIP:         CONSTRUCTION TYPE:         VID         CONTRUCTION TO EQUIPPED WITH FIRE         SPRINKLERS         AREA SUMMARY:         (E) STORY ADDITON:         (ID CARAGE:         VID AND TY ADDITON:         (ID CARAGE:         VID ADDITON:	A REMOBL FOR: HUGH BARNETT       A REMODL FOR: <u>EVEV 730/18 MK       REVISION LALIOUT: A         2470 RANCHITO DR CONCORD CA       REVISION HISTORY       REVISION HISTORY   </u>
	12/11/2018 SITE PLAN
	A-1

PLAN NORTH

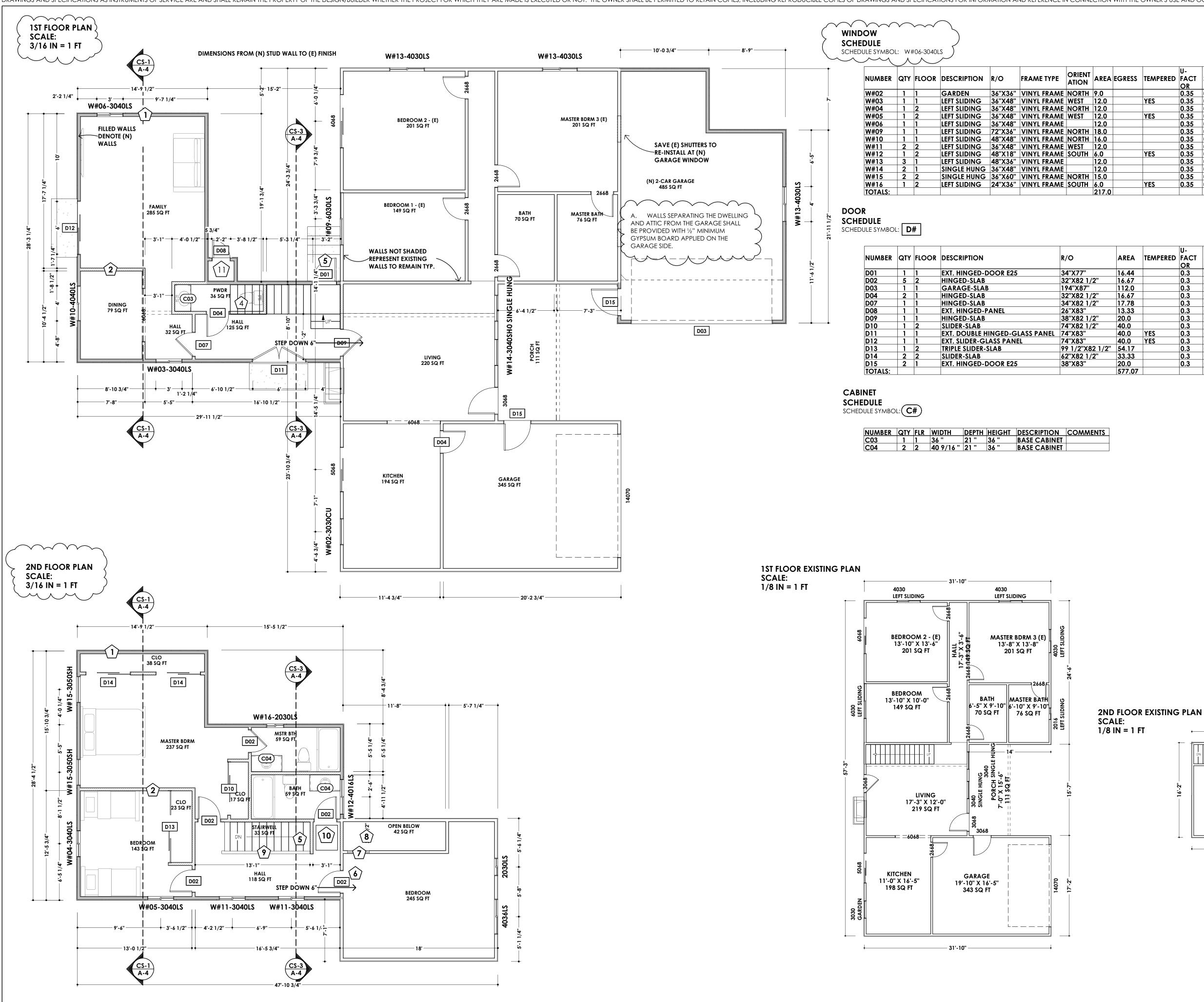


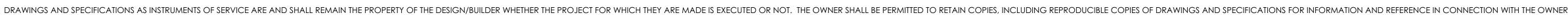
( (N) 2-CAR GARAGE	
$= \left\{ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	





DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROJECT. THE DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER'S USE AND OCCUPANCY OF THE PROJECT. THE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY THE OWNER ON OTHER PROJECTS.



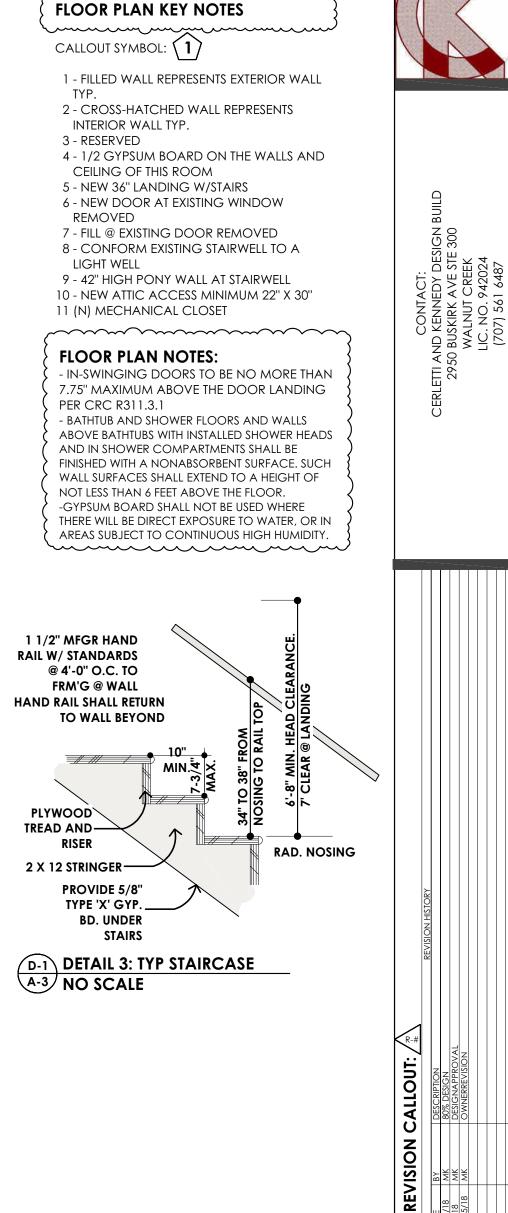


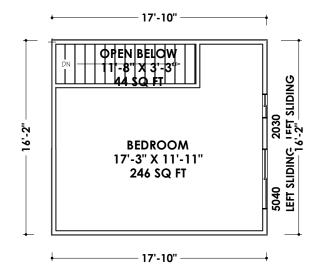
NUMBER	QTY	FLR	WIDTH	DEPTH	HEIGHT	DESCRIPTION	COMMENTS
C03	1	1	36 "	21 "	36 "	<b>BASE CABINET</b>	
C04	2	2	40 9/16 "	21 "	36 "	<b>BASE CABINET</b>	

ER'S USE AND OCCUPANCY OF THE PROJECT. THE DRAWINGS AND SPECIFICATIONS	S SHALL NOT BE USED BY THE OWNER ON OTHER PROJECTS.

PERED	U- FACT OR	SHGC	COMMENTS
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	
	0.35	0.25	

PERED	U- FACT OR	SHGC	THICKNESS	COMMENTS
	0.3	0.3	1 3/4"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/4"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/4"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/4"	
	0.3	0.3	1 3/4"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/8"	
	0.3	0.3	1 3/4"	



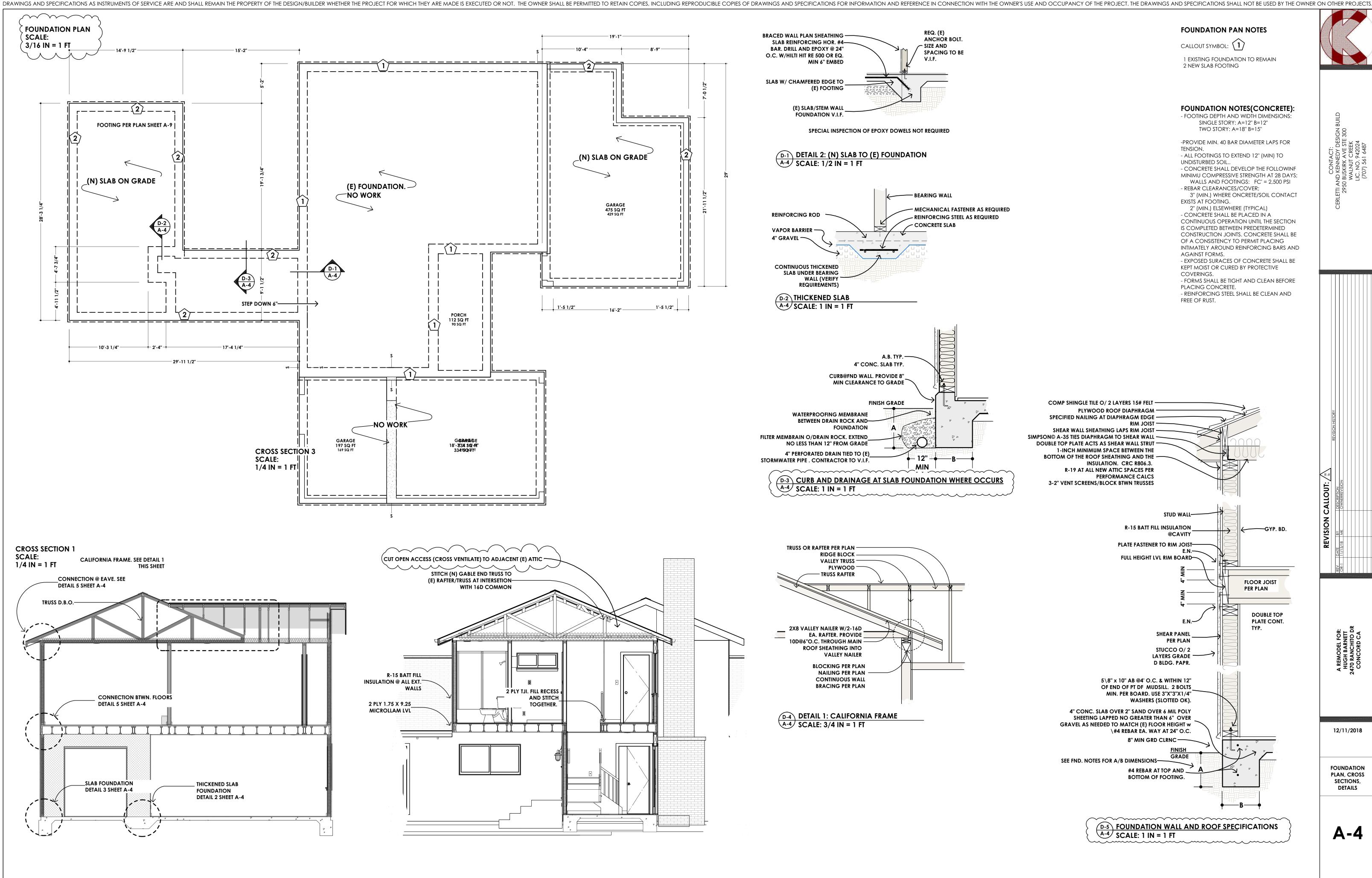


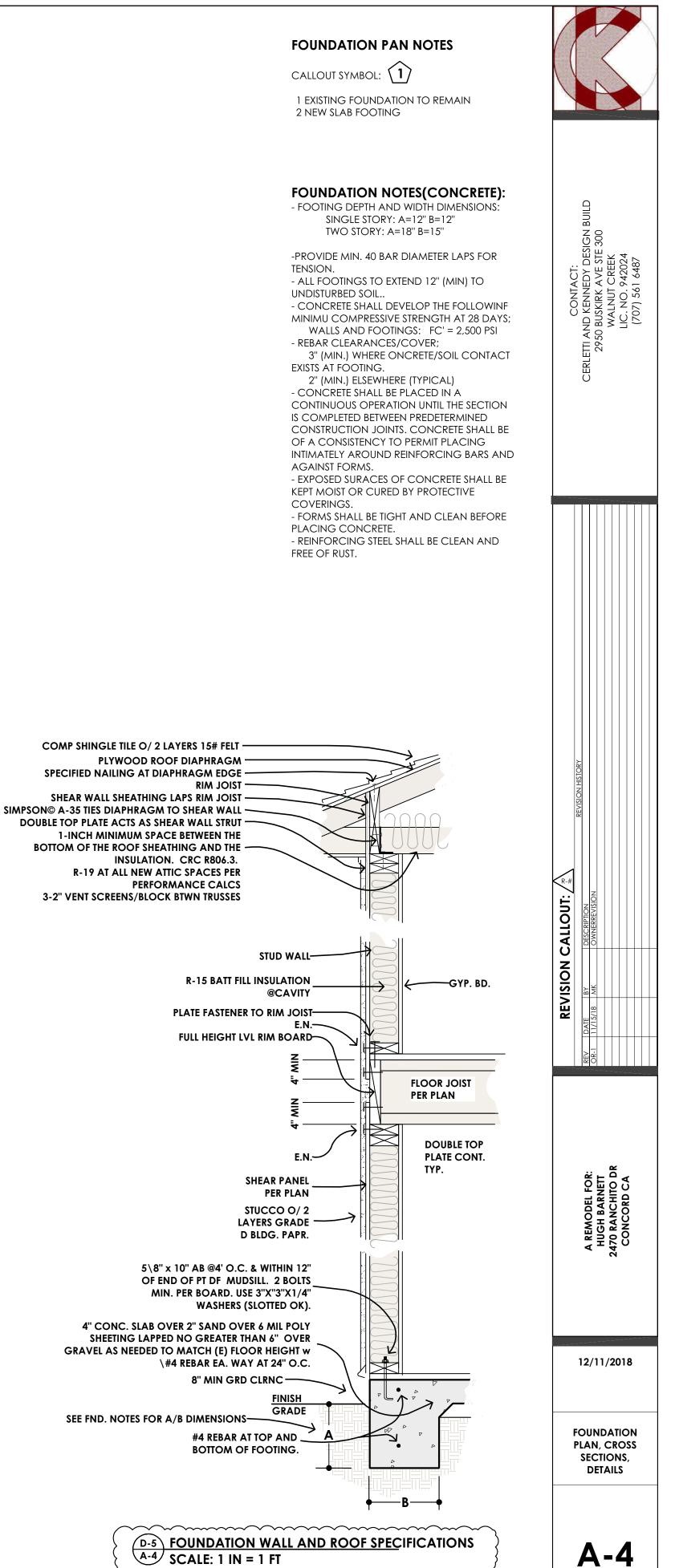
12/11/2018

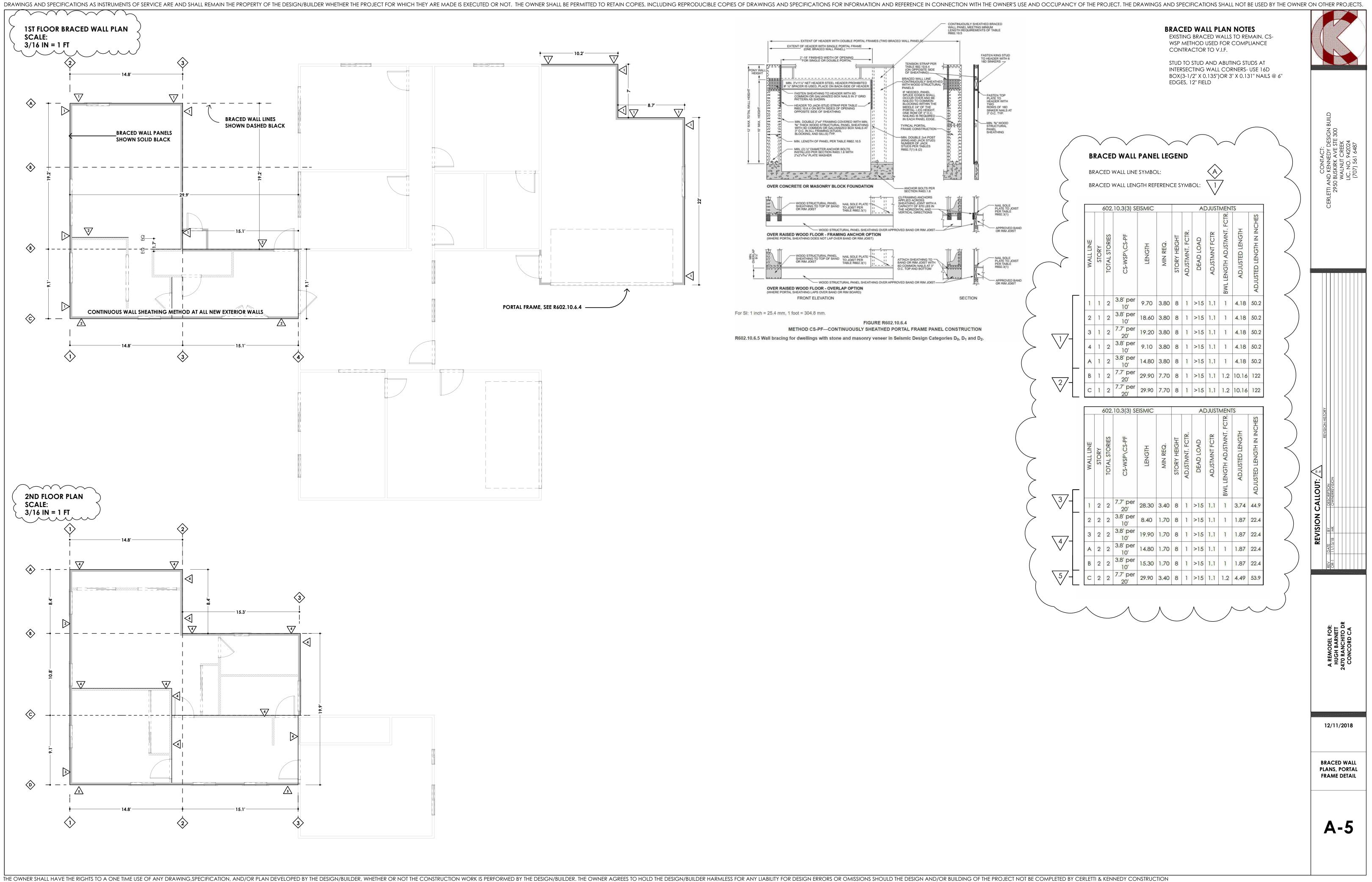
A REMODEL FOR: HUGH BARNETT 470 RANCHITO DR CONCORD CA

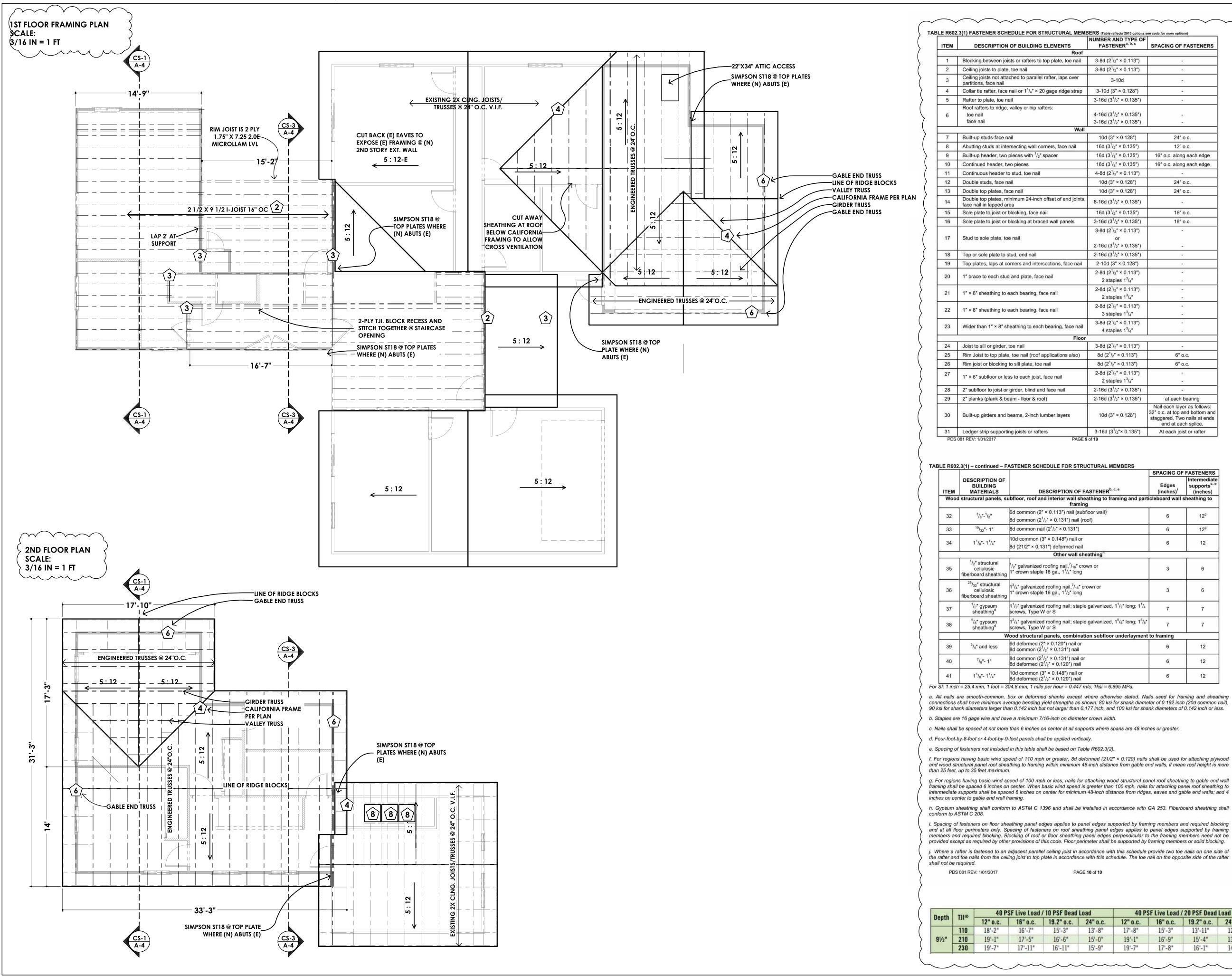
**1ST FLOOR** PLAN, 2ND FLOOR PLAN, EXISTING PLAN





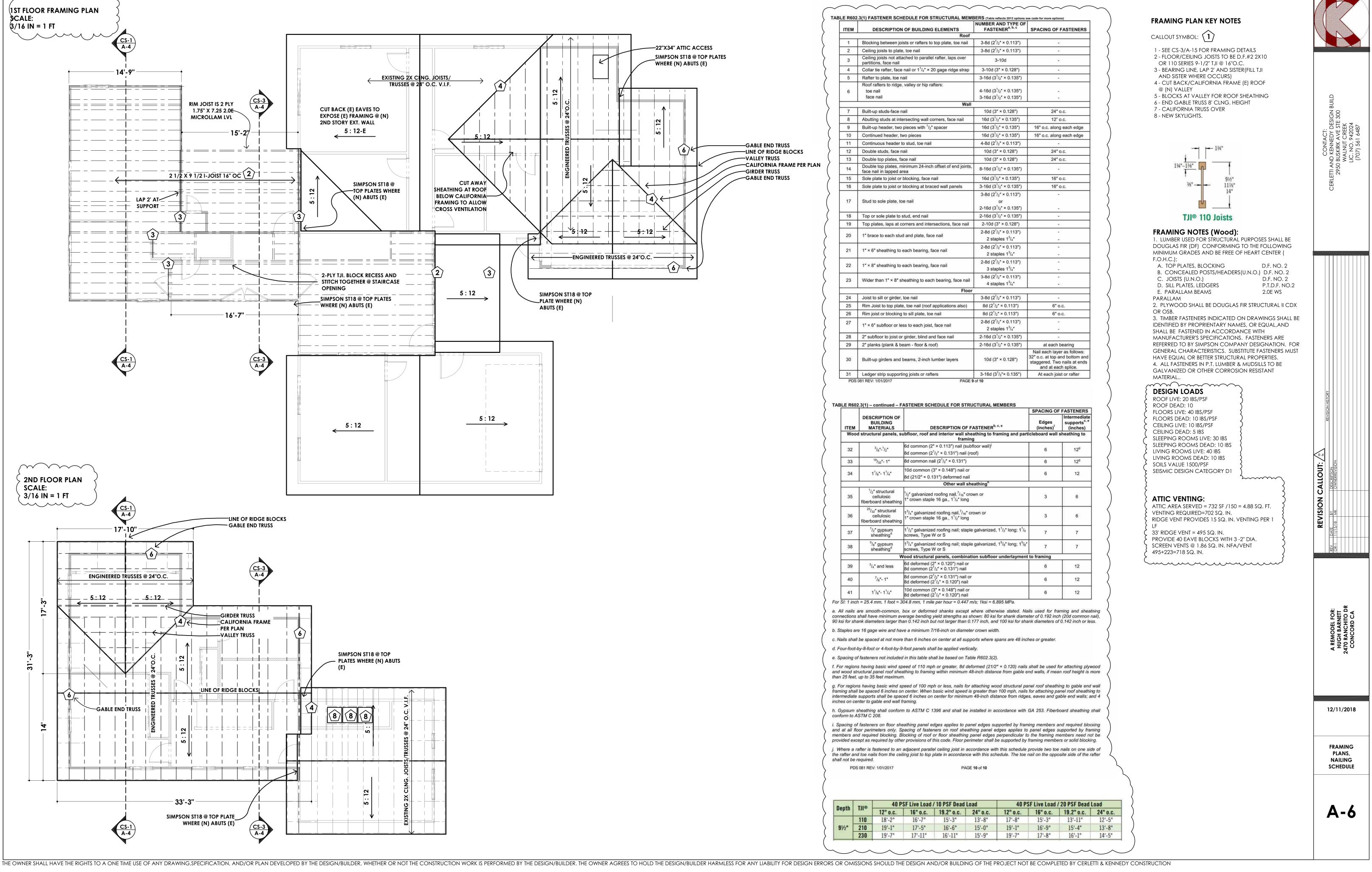


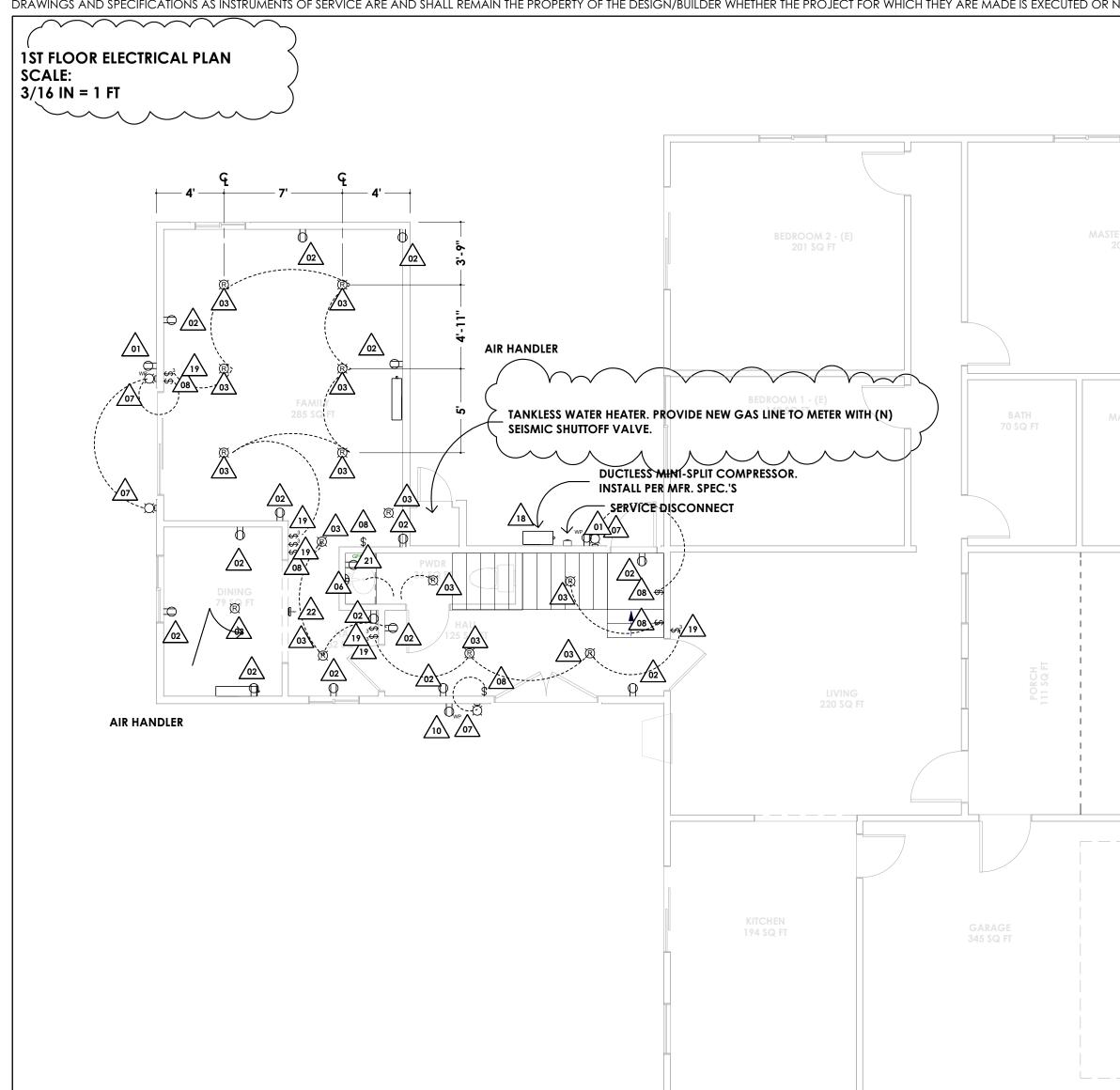




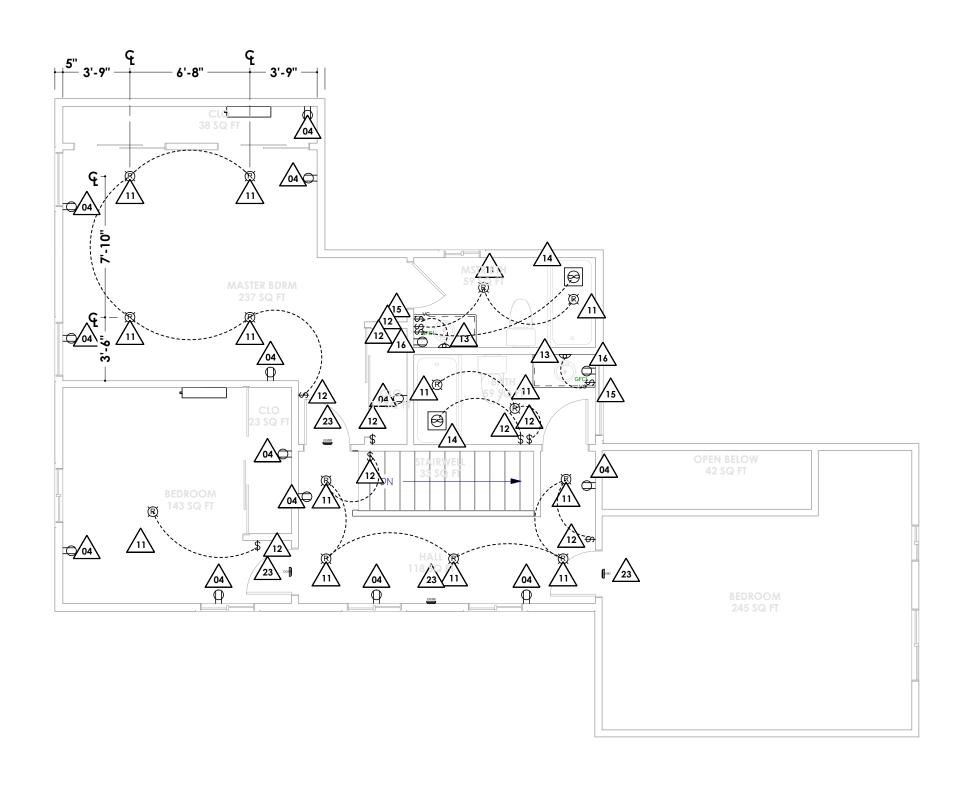
12" o.c. | 16" o.c. | 19.2" o.c. | 24" o.c. | 12" o.c. | 16" o.c. | 19.2" o.c. | 24" o.c.

16'-7" 15'-3" 13'-8" **91/2" 210** 19'-1" 17'-5" 16'-6" 15'-0" 19'-7" 17'-11" 16'-11" 15'-9"





## 2ND FLOOR PLAN SCALE: 3/16 IN = 1 FT





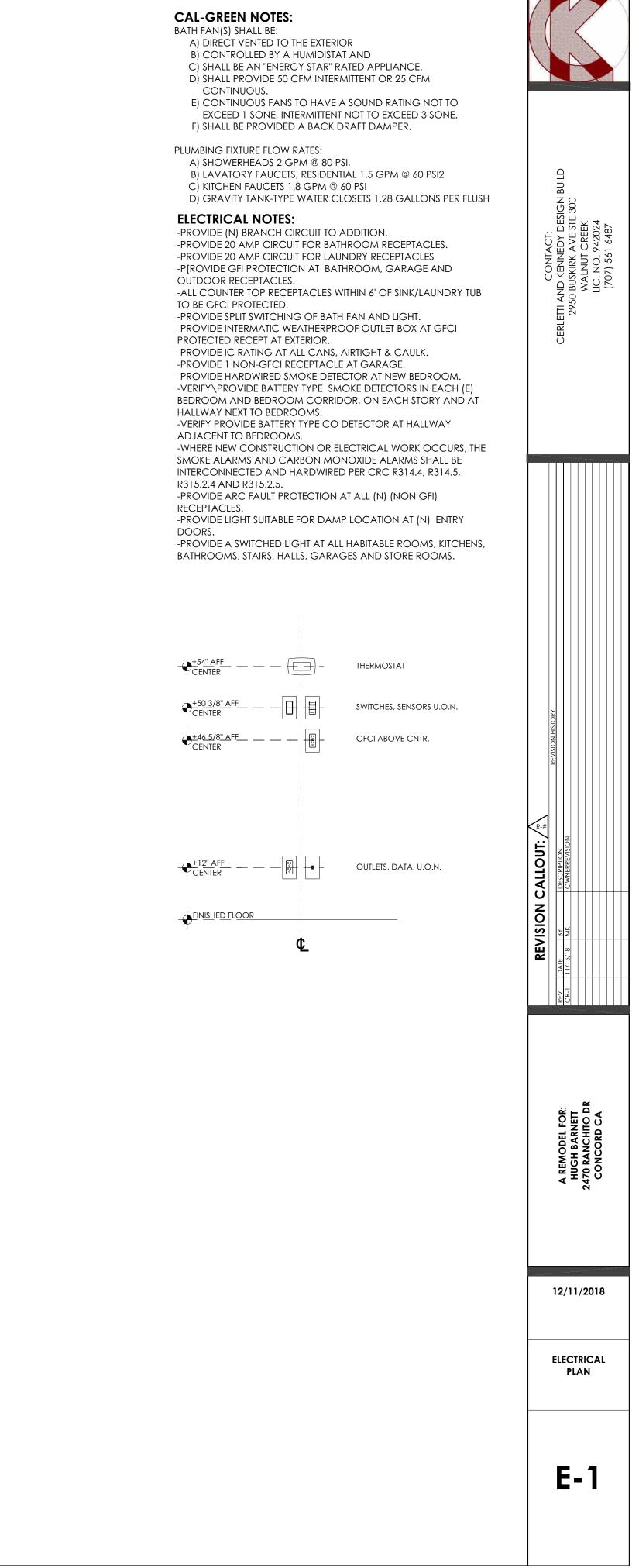


NO	QTY	FLR	DESCRIPTION	COMMENTS
01	2	1	DUPLEX (WEATHERPROOF)	GFCI
02	16	1	DUPLEX	
03	14	1	<b>RECESSED DOWN LIGHT 6</b>	
04	13	2	DUPLEX	
05	1	1	SINGLE POLE	GARAGE DOOR OPENER
06	1	1	VANITY LIGHT T.B.D.	
07	4	1	EXT. WALL SCONCE	
08	7	1	SINGLE POLE	
10	2	1	DUPLEX CEILING MOUNT	
11	14	2	<b>RECESSED DOWN LIGHT 6</b>	
12	9	2	SINGLE POLE	
13	2	2	VANITY LIGHT T.B.D.	
14	2	2	EXHAUST	W/HUMIDISTAT
15	2	2	VACANCY SENSOR	
16	2	2	GFCI	
17	2	1	TUBE LIGHT	
18	1	1	MINI-SPLIT CONDENSER	
19	6	1	DECORATOR SWITCH 3- WAY	
20	1	3	DUPLEX	
21	1	1	GFCI	
22	1	1	CO/SMOKE DETECTOR	
23	4	2	CO/SMOKE DETECTOR	



」┝<u>┝</u>┍┍┍┍┍┍┍┍┍┍┍┍┍┍┍┍





DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE OWNER ON OTHER PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER'S USE AND OCCUPANCY OF THE PROJECT. THE DRAWINGS AND SPECIFICATIONS SHALL NOT BE USED BY THE OWNER ON OTHER PROJECTS.

05

2

8

8

04 05

Zone Floor Area (ft<sup>2</sup>) Avg. Ceiling Height

Calculation Date/Time: 15:26, Thu, Dec 06, 2018

03

Area (ft<sup>2</sup>)

35.0

112.0

35.0

35.0

35.0

35.0

35.0

Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16

04

U-factor

0.50

0.50

0.50

0.50

0.50

0.28

0.28

06

Number of Ventilation

Cooling Systems

0

06

Vater Heating System 1

(E) DHW

TANKLESS-N

HERS Provider:

05

Status

Existing

Existing

Existing

Existing

Existing

New

New

Report Generated at: 2018-12-06 15:27:01

06

Verified Existing Condition

No

No

No

No

No

No

No

CF1R-PRF-01

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#### CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

BARNETT ADDITION		Calculation Da	te/Time: 15:26, T	"hu, Dec 06, 2018	Page 1			
cription: Ex HVAC Altered DHV	<b>V</b>	Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16						
MATION								
Project Name	BARNETT ADDITION							
<b>Calculation Description</b>	Addition 667 ft2				_			
Project Location	5470 RANCHITO DR							
City	CONCORD CA	05		Standards Version	Compliance 2017			
Zip Code	94520	07	Complia	nce Manager Version	BEMCmpMgr 2016.3.1 (1149)			
Climate Zone	CZ3	09		Software Version	CBECC-Res 2016.3.1 (1019)			
Building Type	Single Family	11	Front Orie	ntation (deg/Cardinal)	180			
Project Scope	Addition and/or Alteration	13	Num	ber of Dwelling Units	s 1			
Total Cond. Floor Area (ft <sup>2</sup> )	2832	15	Number of Zones		2			
Slab Area (ft <sup>2</sup> )	2120	17	Number of Stories		2			
Addition Cond. Floor Area (ft <sup>2</sup> )	1278	19	i	Natural Gas Available	Yes			
Addition Slab Area (ft <sup>2</sup> )	566	21	G	lazing Percentage (%)	8.7%			
SULTS								
	ter Performance							
	ENE	RGY USE SUMMARY	1. 					
04	05	06		07	08			
rgy Use (kTDV/ft <sup>2</sup> -yr)	Standard Design	Proposed	Design	Compliance Margin	Percent Improvement			
Space Heating	65.19	64.64	4	0.55	0.8%			
	ATION Project Name Calculation Description City Zip Code Climate Zone Building Type Project Scope Total Cond. Floor Area (ft <sup>2</sup> ) Slab Area (ft <sup>2</sup> ) Addition Slab Area (ft <sup>2</sup> ) Addition Slab Area (ft <sup>2</sup> ) Building Compiles with Compu 04 rgy Use (kTDV/ft <sup>2</sup> -yr)	Artion  Project Name Project Name BARNETT ADDITION  Galculation Description Addition 667 ft2  Project Location 5470 RANCHITO DR City CONCORD CA Zip Code 94520 Climate Zone CZ3 Building Type Single Family Project Scope Addition and/or Alteration Total Cond. Floor Area (ft2) 2832 Slab Area (ft2) 2120 Addition Slab Area (ft2) S66  Building Complies with Computer Performance  04 05 gy Use (kTDV//ft <sup>2</sup> -yr) Standard Design	Input File Name         Project Name       BARNETT ADDITION         Calculation Description       Addition 667 ft2         Project Location       5470 RANCHITO DR         City       CONCORD CA       05         Zip Code       94520       07         Citimate Zone       CZ3       09         Building Type       Single Family       11         Project Scope       Addition and/or Alteration       13         Total Cond. Floor Area (ft <sup>2</sup> )       2120       17       14         Addition Slab Area (ft <sup>2</sup> )       2120       17         Addition Cond. Floor Area (ft <sup>2</sup> )       2120       17       14         Addition Slab Area (ft <sup>2</sup> )       566       21         ENERGY USE SUMMARY         04       05       06       gy Use (kTDV/(ft <sup>2</sup> -yr)       Standard Design       Proposed	AATION Project Name BARNETT ADDITION Calculation Description Addition 667 ft2 Project Location S470 RANCHITO DR City CONCORD CA 05 City CONCORD CA 05 City CONCORD CA 05 City CONCORD CA 09 Citit CONCORD CA 00 Citit CONCORD CA 0	Input File Name: RANCHITO COMPLIANCE BACKUS         Antion         Project Name       BARNETT ADDITION         Calculation Description       Addition 667 ft2         Project Location       Standards Version         City       CONCORD CA       05       Standards Version         Zip Code       94520       07       Compliance Manager Version         Building Type       Single Family       11       Front Orientation (deg/Cardinal)         Project Beope       Addition and/or Alteration       13       Number of Dwelling Units         Total Cond. Floor Area (ft <sup>2</sup> )       2832       15       Number of Zones         Slab Area (ft <sup>2</sup> )       2120       17       Number of Stories         Addition Cond. Floor Area (ft <sup>2</sup> )       266       21       Glazing Percentage (%)         SULTS       ENERGY USE SUMMARY         04       05       06       07         USERGY USE SUMMARY			

5.55

1.12

12.93

0.00

85.03 84.24 0.79 Compliance Energy Total REQUIRED SPECIAL FEATURES The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis. NO SPECIAL FEATURES REQUIRED

5.79

1.12

12.93

Registration Number

Registration Date/Time: CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149 HERS Provider: Report Generated at: 2018-12-06 15:27:01

4.1%

0.0%

0.0%

0.9%

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CF1R-PRF-01

### CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

03

**Heating Unit Name** 

MINI SPLIT

02

System Type

Other Heating and Cooling System

Project Name: BARNETT ADDITION Calculation Description: Ex HVAC Altered DHW

Space Cooling IAQ Ventilation

Water Heating

Photovoltaic Offset

Calculation Date/Time: 15:26, Thu, Dec 06, 2018 Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16

0.24

0.00

0.00

0.00

01	02	03	04	05	06	07	08	09	10	1
Name	Surface (Orientation-Azimuth)	Width (ft)	Height (ft)	Multiplier	Area (ft <sup>2</sup> )	U-factor	SHGC	Exterior Shading	Status	Veri Exis Conc
W14 ALUMINUM	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	N
W15 ALUMINUM	I (Front-180)	2.0	1.5	1	3.0	1.28	0.80	Insect Screen (default)	Existing	N
W14 ALUMINUM-2	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	N
W14 ALUMINUM-3	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	N
W2 ALUMINUM	3 (Front-180)	3.0	3.0	1	9.0	1.28	0.80	Insect Screen (default)	Existing	٨
W9 ALUMINUM	3 (Front-180)	6.0	3.0	1	18.0	1.28	0.80	Insect Screen (default)	Existing	٨
W13 ALUMINUM	4 (Left-270)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	1
W13 ALUMINUM-2	4 (Left-270)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	1
W1 ALUMINUM	7 (Front-180)	2.0	4.0	1	8.0	1.28	0.80	Insect Screen (default)	Existing	1
W8 ALUMINUM	7 (Front-180)	4.0	4.0	1	16.0	1.28	0.80	Insect Screen (default)	Existing	١
W2 ALUMINUM-2	10 (Right-90)	3.0	3.0	শ	9.0	1.28	0.80	Insect Screen (default)	Existing	٨
W03(N) Milgard SpeC	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n
W011(N) Milgard Spec	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	i i
W011(N) Milgard Spec-2	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	r
W05(N) Milgard Spec	ADD WALL 1 (Left-270)	3.0	4.0	. ar	12.0	0.30	0.40	Insect Screen (default)	New	. :r
W10(N) Milgard Spec	ADD WALL 2 (Back-0)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	r
W04(N) Milgard Spec	ADD WALL 2 (Back-0)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	0
W07(N) Milgard Spec	ADD WALL 2 (Back-0)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n
W07(N) Milgard Spec-2	ADD WALL 2 (Back-0)	4.0	4.0	a 🗌	16.0	0.30	0.40	Insect Screen (default)	New	. :r
W06(N)	ADD WALL 3 (Right-90)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n

Project Name: BARNETT ADDITION

SPACE CONDITIONING SYSTEMS

01

SC Sys Name

HVAC-N

Calculation Description: Ex HVAC Altered DHW

Registration Date/Time: CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149

04

**Cooling Unit Name** 

MINI SPLIT COOLING

Calculation Date/Time: 15:26, Thu, Dec 06, 2018

Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16

05

Fan Name

06

Distribution

Name

HVAC Fan System DUCTLESS MINI 2 SPLIT

HERS Provider:

07

Status

New

Report Generated at: 2018-12-06 15:27:01

CF1R-PRF-01

08

Verified Existing

Condition

No

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CA Building Energ CERTIFICATE

**Project Name Calculation D** 

HVAC DISTR	BUTION
n en sen frank frank fra Aleman en sen en sen en sen en sen	01
	Name
HVAC - FAN	SYSTEM
	SAME TO
	HVAC F
IAQ (Indoor	Air Qualit
	01
Dw	elling Un
SFor	IAQVenti

HVAC-E	Oth	er Heating and System	Cooling	Trane 90		Cooling Sy	stem 2	HVAC Fan	Ducts	Exis	ting	No
IVAC - HEATING UNI	T TYPES		~									
	01				02	1		03			04	
	Name				System	Туре		Number of l	Inits		Efficiency	
	MINI SPLIT				WallFurn	aceFan		1			95 AFUE	
IVAC - COOLING UNI	T TYPES					,	- W					
01			02		03	04	05	06		07		08
Name		Sys	llem Type	Numt	per of Units	Effic EER	ciency SEER	Zonally Controlled	Comp	Compressor Type		Verification
MINI SPLIT COOL	.ING	Ductiess	ViniSplitAirCond		1	13	22	Not Zonal	Single Speed		Single Speed MINI SPLIT COOLING-hers-cool	
VAC COOLING - HEI	RS VERIFIC	ATION										
01		where the	02	03			04		B.	0	06	
Name			Verified Airflow		Airflov	w Target	Ve	rified EER				Refrigerant harge
MINI SPLIT COOLIN	G-hers-cool		Not Required	n/a		n/a	Not Required		Not Red	quired	Not	Required
VAC - DISTRIBUTIO	N SYSTEMS											
01		02	03	04		05	06	07	08	1	09	10
Name	'n	ура	Duct Leakage	Insula R-val		oply Duct	Return Duct Location	Bypass Duct	Status		I Existing	HERS Verification
Ducts	(Ventil	ated in attic ated and htilated)	Existing (not specified)	6.0		Attic	Attic	None	Existing		No	n/a
DUCTLESS MINI SPLIT		on systems ut ducts	Sealed and tested	0		n/a	n/a	None	New		No	DUCTLESS MINI SPLIT-hers- dist

Registration Number

Registration Date/Time: CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149 HERS Provider: Report Generated at: 2018-12-06 15:27:01

Registration Number

Calculation Description: Ex HVAC Altered DHW OPAQUE DOORS

Registration Number

Project Name: BARNETT ADDITION

01

D01

D01-2

D01-3

Name D01-3-2 D01-3-3 D01(N) D01(N)-2 **OPAQUE SURF** 

Construct

Inte R-15 V

Asphalt Sh

R-19 G

**Registration Number** 

GERTIFIC	MIE	OF COMPL	JANGE - REGIDENTIAL P	Cr.
Project N	lame:	BARNETT	ADDITION	

· Duct Sealing required if a duct system component, plenum, or air handling unit is altered

02

nditioned Floor Area (ft<sup>2</sup>)

2832

02

Zone Type

Conditioned

Conditioned

HERS FEATURE SUMMARY

**Building-level Verifications:**  IAQ mechanical ventilation **Gooling System Verifications:** 

\*\* None \*\*

-- None --

ovided in the building components tables below

HVAC Distribution System Verifications:

Domestic Hot Water System Verifications:

**BUILDING - FEATURES INFORMATION** 01

Project Name

BARNETT ADDITION

01

Zone Name

House

Addition

ZONE INFORMATION

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Calculation Date/Time: 15:26, Thu, Dec 06, 2018 Calculation Description: Ex HVAC Altered DHW Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16

03

Number of Dwelling

Units

1

03

**HVAC System Name** 

HVAC-E

HVAC-N

Registration Date/Time:

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is

04

4

Number of Bedrooms Number of Zones

1554

1278

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07

Number of Water

Heating Systems

2

07

Water Heating System 2

n/a

n/a

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Project Name: BARNETT ADDITION

Calculation Description: Ex HVAC Altered DHW

DPAQUE SURFACES										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft <sup>2</sup> )	Window & Door Area (ft <sup>2</sup> )	Tilt (deg)	Wall Exception	Status	Verified Existing Condition
1	House	Wall R0	180	Front	513	186	90	n/a	Existing	No
2	House	Wall R0	270	Left	330	0	90	n/a	Existing	No
3	House	Wall R0	180	Front	513	132	90	n/a	Existing	No
A	House	Wall R0	270	Left	330	24	90	n/a	Existing	No
6	House	Wall R0	270	Left	112	0	90	n/a	Existing	No
6	House	Wall R0	90	Right	112	0	90	n/a	Existing	No
7	House	Wall R0	180	Front	120	24	90	n/a	Existing	No
8	House	Wall R0	270	Left	136	0	90	n/a	Existing	No
9	House	Wall R0	0	Back	96	0	90	n/a	Existing	No
10	House	Wall R0	90	Right	136	9	90	n/a	Existing	No
DIVIDING WALL TO ADDITION	House=Addition	Interior R0			81	0		n/a	New	n/a
Ceiling (below attic) 2	House	R-0			1554		1	n/a	Existing	No
ADD WALL 1	Addition	R-15 WALLS	270	Left	520	83	90	none	New	n/a
ADD WALL 2	Addition	R-15 WALLS	0	Back	537	95	90	none	New	n/a
ADD WALL 3	Addition	R-15 WALLS	90	Right	540	16	90	none	New	n/a
ADD WALL 4	Addition	R-15 WALLS	180	Front	234	0	90	none	New	n/a
Ceiling (below attic)	Addition	R-19 CEILING			712			n/a	New	n/a
NTTIC										
01	02	03	04	05	06	07	08	09		10
Name	Construction	Туре	Roof Rise	Roof Reflectance	Roof Emittance		Cool Roof	Status		fied Existin
Allic	Asphalt Shingle F	toof Ventilated	5	0.1	0.85	Yes	No	Existing		No
Addin Attic	Auphalt Shingle F	toof Ventilated	5	0.1	0.85	Yes	No	New		No

Registration Number

CA Building Energy Efficiency Standards - 2016 Residential Compliance

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Calculation Date/Time: 15:26, Thu, Dec 06, 2018 Project Name: BARNETT ADDITION Calculation Description: Ex HVAC Altered DHW Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16

SLAB FLOORS						r					-		
1000 CO. 100 F. 10 CO. 10 CO. 10	01		02		03	04	05	8		06	07	08	09
	łame		Zone		Area (ft <sup>2</sup> )	Perimeter (ft)	Edge Insul	I. R-va	lue	Carpeted Fraction	Heated	Status	Verified Existing Condition
SLAB ON G	RADE EXISIN	a	House		1554	178	Nor	ne		1	No	Existing	g No
SLAB ON G	RADE ADDITIC	ON	Addition		566	106	Nor	ne		1	No	New	No
BUILDING ENVELO	OPE - HERS V	ERIFICATION											
	01				02				03			04	
Quality in	sulation inst	allation (QII)	Qua	lity Installa	ation of Spray Foar	n Insulation	Buildin	g Env	elope Air Lea	kage		CFM	50
1202002000	Not Required Not Required				Not Required n/a								
WATER HEATING !	IYSTEMS												
01		02		C	)3		04		05		06	07	08
Name		System Type		Distribution Type		w	Water Heater		Numbe	er of F	Solar raction (%)	Status	Verified Existin Condition
(E) DHW		DHW		Star	ndard		WH-E			1		Existing	No
TANKLESS	I-N	DHW		Star	ndard	j i	TANKLESS 1				n/a	New	No
WATER HEATERS	1	1											
01	02	03	04	05	06	07	08	1	09	10		11	12
Name	Heater Element Type	Tank Type	Number of Units	Tank Volume (gal)	Uniform Energy Factor / Energy Factor / Efficienc	Thermal	Insulation R-valu	on le	Standby Loss / Recovery Eff	First Hour Rating / Flow Rate	NEEA	Heat Pump d / Model	Tank Locatio or Ambient Condition
WH-E	Gas	Small Storage	1	50	0.5 EF	<= 75 kBtu/	nr O		n/a	n/a		n/a	n/a
TANKLESS	Gas	Small Instantaneous	â	0	0.82 EF	<= 200 kBtu	hr 0		n/a	n/a		n/a	n/a

Registration Date/Time:

**Registration Number** CA Building Energy Efficiency Standards - 2016 Residential

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PE Project Name: BARNETT ADDITION Calculation Description: Ex HVAC Altered DHW

Gale	ulation Description: Ex HVAC Altered DHW
DOC	UMENTATION AUTHOR'S DECLARATION STATEME
1,10	ertify that this Certificate of Compliance documentation
Doci	mentation Author Name:
Com	pany
Addr	005
City/	State/Zip:
RES	PONSIBLE PERSON'S DECLARATION STATEMENT
l cert 1 2, 3,	ify the following under penalty of perjury, under the law: I am eligible under Division 3 of the Business and P I certify that the energy features and performance s Regulations. The building design features or system design featu worksheets, calculations, plans and specifications s
Resp	ionsible Designer Name:
Com	pany:
Addr	6688;
City/:	State/Zip:

	ADD WALL 1
2	ADD WALL 2
office and a subscription of the second s	

CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149

02

Side of Building

3

3

3

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD

RFACE CONSTR	UCTIONS				-,	
01	02	03	04	05	06	07
iction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Winter Design U-factor	Assembly Layers
vali RÖ	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	none	0.361	<ul> <li>Inside Finish: Gypsum Board</li> <li>Cavity / Frame: no insul. / 2x4</li> <li>Exterior Finish: 3 Coat Stucco</li> </ul>
erior R0	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	none	0.277	<ul> <li>Inside Finish: Gypsum Board</li> <li>Cavity / Frame: no insul. / 2x4</li> <li>Other Side Finish: Gypsum Board</li> </ul>
5 WALLS	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R 19 in 5-1/2 in. cavity (R-18)	0.049	<ul> <li>Inside Finish: Gypsum Board</li> <li>Sheathing / Insulation: R5 Sheathing</li> <li>Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6</li> <li>Sheathing / Insulation: Wood Siding/sheathing/decking</li> <li>Exterior Finish: 3 Coat Stucco</li> </ul>
Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O.C.	none	0.644	Cavity / Frame: no insul. / 2x4 Top Chrd     Roof Deck: Wood Siding/sheathing/decking     Roofing: Light Roof (Asphalt Shingle)
R-0	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O.C.	none	0.472	<ul> <li>Inside Finish: Gypsum Board</li> <li>Cavity / Frame: no insul. / 2x4</li> </ul>
GEILING	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O.C.	R 19	0.049	<ul> <li>Inside Finish: Gypsum Board</li> <li>Cavity / Frame: R-9.1 / 2x4</li> <li>Over Ceiling Joists: R-9.9 insul.</li> </ul>

umber		Registration I	Date/Time:	HERS Provider:				
nergy Efficiency Star	ndards - 2016 Residential Complia	nce Report Versio	on - CF1R-06232018	Report Generated at: 2018-12-06 15:27:01				
E OF COMPLIAN	ICE - RESIDENTIAL PERFOR	RMANCE COMPLIA	NCE METHOD				CF1R-PRF-01	
e: BARNETT ADI	DITION		Calculation D	ate/Time: 15:26, Th	nu, Dec 06, 2018	8	Page 8 of 9	
Description: Ex H	HVAC Altered DHW		Input File Nar	me: RANCHITO CO	MPLIANCE BAG	CKUP.ribd16		
BUTION - HERS VE	restaurus (server) (server) ar san ar sa							
01	02	03	04	05	06	07	08	
	Duct Leakage	Duct Leakage	Verified Duct	Verified Duct	Buried	Deeply Buried	Low-leakage	
Name	Verification	Target (%)	Location	Design	Ducts	Ducts	Air Handler	
SYSTEMS & HERS	VERIFICATION							
01		02			03		04	
Name Type				Fan Powe	S Verification			
HVAC Fan System 2 Single Speed PSC			Furnace Fan 0.58			1000 N		
ir Quality) FANS								
01	02		03	03 04			06	
P.1111								

C Fan System 2	Single Speed PSC Furnace Far		0.58				
ality) FANS			42 				
	02	03	04	05	06		
Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness(%)	HERS Verification		
intRpt	66	0.25	Default	0	Required		

Registration Date/Time: CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149 HERS Provider: Report Generated at: 2018-12-06 15:27:01

Registration Number:

CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-06232018-1149 THE OWNER SHALL HAVE THE RIGHTS TO A ONE TIME USE OF ANY DRAWING, SPECIFICATION, AND/OR PLAN DEVELOPED BY THE DESIGN/BUILDER. THE OWNER AGREES TO HOLD THE D

Calculation Date/Time: 15:26, Thu, Dec 06, 2018 Input File Name: RANCHITO COMPLIANCE BACKUP.ribd16 CF1R-PRF-01 Page 3 of 9

Registration Date/Time: Report Version - CF1R-06232018-1149 HERS Provider: Report Generated at: 2018-12-06 15:27:01

С	F1R-PRF-01
	Page 6 of 9

Compliance	Report Version - CF1R-06232018-1149	Report Generated at: 2018-12-06 15:27:01				
ERFORMAN	CE COMPLIANCE METHOD	CF1R-PRF-0				
	Calculation Date/Time: 15:26, Thu	I, Dec 06, 2018 Page 9 of 9				
	Input File Name: RANCHITO CON	IPLIANCE BACKUP.ribd16				
NT						
is accurate and	d complete.					
	Documentation Author Signature:					
	Signature Date:					
	CEA/HERS Certification Identificat	ion (If applicable):				
	Phone:					
	e to accept responsibility for the building design identified on t	his Certificate of Compliance. ements of Title 24, Part 1 and Part 6 of the California Code of				
	n this Certificate of Compliance are consistent with the inform enforcement agency for approval with this building permit app					
	Responsible Designer Signature:					

HERS Provider

Date Signed:
License:
Phone:

300 300 STE CREF CREF CON, ETTI AND KENNE 2950 BUSKIRK A WALNUT ( 1.IC. NO. 5 ALLOUT: EMODEL FOR: JGH BARNETT RANCHITO DI DNCORD CA 2 R C

12/11/2018

TITLE 24 PAGE 1-2

T24-1

Registration Date/Time:



2016 CALGREEN RESIDENTIAL CHECKLIST MANDATORY ITEMS City of Daly City

333 - 90th Street Daly City, CA. 94015

#### PURPOSE:

The residential provisions of the 2016 CalGreen Code outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties; establishes the means of conserving water used indoors, outdoors and in wastewater conveyance; outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

Project	Name:
Project	Address:

Project Description:

**INSTRUCTIONS:** 

1. The Owner or the Owner's agent shall employ a licensed professional experienced with the 2016 California Green Building Standards Codes to verify and assure that all required work described herein is properly planned and implemented in the project.

2. The licensed professional, in collaboration with the owner and the design professional shall initial Column 2 of this checklist, sign and date Section 1 - Design Verification at the end of this checklist and have the checklist printed on the approved plans for the project.

3. Prior to final inspection by the Building Division, the licensed professional shall complete Column 3 and sign and date Section 2 - Implementation Verification at the end of this checklist and submit the completed form to the Building Inspector.

	COLUMN 2	COLUMN 3
MANDATORY FEATURE OR MEASURE	Projection Requirements	Verification
CHAPTER 4 - RESIDENTIAL MANDATORY MEASURES		A.
General Requirements		
Project meets all of the requirements of Divisions 4.1 through 4.5.		
DIVISION 4.1 - PLANNING AND DESIGN		
Site Development	1	11
<b>4.106.2 Storm water drainage and retention during construction.</b> A plan is developed and implemented to manage storm water drainage during construction	Mandatory	
4.106.3 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	Mandatory	
<b>4.106.4 Provide capability for electric vehicle charging</b> in one- and two - family dwellings and in townhouses with attached private garages and 3% of total parking spaces as specified for multifamily dwellings.	Mandatory	
DIVISION 4.2 - ENERGY EFFICIENCY		
General Requirements		
<b>4.201.1 Scope.</b> Building meets or exceeds the requirements of the California Building Energy Efficiency Standards <sup>3</sup> .	Mandatory	
Page 1 of 5	CalGree	n Residential Checkli

	CALGREEN SIGNATURE D	ECLARAT	IONS
Project Name:			
Project Address:			
Project Description:			
SECTION 1 - DESI	GN VERIFICATION		
	Section 1 - "Design Verification" and submit the application to the Building Department.	completed che	cklist (Columns 1 and 2) with the plans
that the items check	gn professional responsible for compliance with C ked above are hereby incorporated into the proje requirements set forth in the 2016 California Green	ect plans and	will be implemented into the project in
Owner's Signature		-	Date
Owner's Name (Pleas	e Print)	-	
Design Professional's	Signature	-	Date
Design Professional's	Name (Please Print)	-	
Signature of License	Professional responsible for CalGreen compliance	-	Date
Name of License Pro	fessional responsible for CalGreen compliance (Please P	rint)	Phone
Email Address for Lic	ense Professional responsible for CalGreen compliance	-	
SECTION 2 - IMPL	EMENTATION VERIFICATION		
	submit the completed checklist, including column prior to Building Division final inspection.	3, together wit	th all original signatures on Section 2 to
was constructed in	work and have received sufficient documentation accordance with this Green Building Checklist ar ding Standards Code as adopted by the City.		
Signature of License	Professional responsible for CalGreen compliance	-	Date
Name of License Pro	fessional responsible for CalGreen compliance (Please P	rint)	Phone
Email Address for Lic	ense Professional responsible for CalGreen compliance	-	

**DIVISION 4.3 - WATER EFFICIENCY AND CONSERV** Indoor Water Use

**4.303.1 Water conserving plumbing fixtures and fittings.** Plumbing fi (water closets and urinals) and fittings (faucets and showerheads) instal residential buildings shall comply with the prescriptive requirements of Se 4303.1.1 through 4303.1.4.4.

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

4.303.1.2 Urinals. The effective flush volume of urinals shall not excee gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 p Showerheads shall be certified to the performance criteria of the U WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. Wh shower is served by more than one showerhead, the combined flow of all showerheads and/or other shower outlets controlled by a sing valve shall not exceed 2.0 gallons per minute at 80 psi, or the show shall be designed to allow only one shower outlet to be in operation time.

nower shall be considered a showerhead.

ivatory faucets. The maximum flow rate of hall not exceed 1.5 gallons per minute at 60 p

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

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

4.303.2 Standards for plumbing fixtures and fittings. Plumbing fixture fittings required in Section 4.303.1 shall be installed in accordance with the Cal Plumbing Code, and shall meet the applicable referenced standards.

Page 2 of 5

## **DIVISION A4.6 – TIEF**

SECTION A RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

# Effective July 1, 2015

	APPLICANT TO S	LEVELS ELECT ELECTIV	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE		Prerequisites an		Enforcin g Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2			
PLANNING AND DESIGN						
Site Selection						
<ul> <li>A4.103.1 A site which complies with at least one of the following characteristics is selected:</li> <li>1. An infill site is selected.</li> <li>2. A greyfield site is selected.</li> <li>3. An EPA-recognized Brownfield site is selected.</li> </ul>						
<ul> <li>A4.103.2 Facilitate community connectivity by one of the following methods:</li> <li>1. Locate project within a <sup>1</sup>/<sub>4</sub>-mile true walking distance of at least 4 basic services;</li> <li>2. Locate project within <sup>1</sup>/<sub>2</sub>-mile true walking distance of at least 7 basic services;</li> <li>3. Other methods increasing access to additional resources.</li> </ul>						
Site Preservation						
A4.104.1 An individual with oversight responsibility for the project has participated in an educational program promoting environmentally friendly design ordevelopment and has provided training or instruction to appropriate entities.						
Deconstruction and Reuse of Existing Materials						
<ul> <li>A4.105.2 Existing buildings are disassembled for reuse or recycling of building materials. The proposed structure utilizes at least one of the following materials which can be easily reused: <ol> <li>Light fixtures</li> <li>Plumbing fixtures</li> <li>Doors and trim</li> <li>Masonry</li> <li>Electrical devices</li> <li>Appliances</li> <li>Foundations or portions of foundations</li> </ol> </li> </ul>		D				
Site Development						
<b>4.106.2</b> A plan is developed and implemented to manage storm water drainage during construction.	X					
4.106.3 Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings.	X					
4.106.4 Provide capability for electric vehicle charging in one- and two-family dwellings and in townhouses with attached private garages; and 3 percent of total parking spaces, as specified, for multifamily dwellings.	X					
A4.106.1 Reserved.						
A4.106.2.1 Soil analysis is performed by a licensed design professional and the findings utilized in the structural design of the building.						

CalGreen Residential Checklist

DN		Outdoor Water Use	
es in ns	Mandatory	<ul> <li>4.304.1 After December 1,2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following options:</li> <li>1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO). whichever is more stringent or</li> </ul>	Mandatory
all o e	Mandatory	2. Projects with aggregate landscape areas less than 2,500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.	
5	Mandatana	DIVISION 4.4 - MATERIAL CONSERVATION AND RESOURC	E EFFICIEN
	Mandatory	Enhanced Durability and Reduced Maintenance	
	Mandatory	4.406.1 Rodent proofing. Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.	Mandatory
4	Mandatory	Construction Waste Reduction, Disposal and Recycling	
		4.408.1 Construction waste management. Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with one of the following:	Mandatory
	Mandatory	<ol> <li>Comply with a more stringent local construction and demolition waste management ordinance; or</li> <li>A construction waste management plan, per Section 4.408.2; or</li> <li>A waste management company, per Section 4.408.3; or</li> <li>The waste stream reduction alternative, per Section 4.408.4.</li> </ol>	Mandatory
		Building Maintenance and Operation	
	Mandatory	<b>4.410.1 An operation and maintenance manual</b> shall be provided to the building occupant or owner.	Mandatory
	Monditori	<b>4.410.2</b> Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. See exception for rural jurisdictions.	Mandatory
	Mandatory	<b>DIVISION 4.5 - ENVIRONMENTAL QUALITY</b>	
		Fireplaces	
	Mandatory	4.503.1 Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	Mandatory

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CalGreen Residential Checklist

DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICE ARE AND SHALL REMAIN THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES, INCLUDING REPRODUCIBLE COPIES OF DRAWINGS AND SPECIFICATIONS FOR INFORMATION AND REFERENCE IN CONNECTION WITH THE OWNER SHALL BE PERMITTED TO RETAIN COPIES.

CalGreen Residential Checklist

R 1	AND	TIER	2—
4.60	2		

July 1, 2015 SUPPLEMENT

	APPLICANT TO	LEVELS SELECT ELECTIV	E MEASURES	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE		Prerequisites and electives <sup>1</sup>		Enforcin g Agency	Installer or Designer	Third party	
	Mandatory	Tier 1	Tier 2				
<ul> <li>A4.106.2.2 Soil disturbance and erosion are minimized by at least one of the following: <ol> <li>Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy.</li> </ol> </li> </ul>							
<ol><li>Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways.</li></ol>							
<ol> <li>Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods.</li> </ol>							
A4.106.2.3 Topsoil shall be protected or saved for reuse as specified in this section.		×2	×2				
Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion.							
Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area.			⊠²				
<ul> <li>A4.106.3 Postconstruction landscape designs accomplish one or more of the following: <ol> <li>Areas disrupted during construction are restored to be consistent with native vegetation species and patterns.</li> </ol> </li> </ul>		da se Tanas					
<ol> <li>Limit turf areas to the greatest extent possible.</li> <li>a. Not more than 50 percent for Tier 1.</li> <li>b. Not more than 25 percent for Tier 2.</li> <li>Utilize at least 75 percent native California or</li> </ol>							
<ul><li>drought tolerant plant and tree species appropriate for the climate zone region.</li><li>4. Hydrozoning irrigation techniques are incorporated into the landscape design.</li></ul>							
A4.106.4 Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following: Tier 1. Not less than 20 percent of the total parking,		X2					
walking or patio surfaces shall be percent of the total parking, Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable.			⊠²				
A4.106.5 Roofing materials shall have a minimum 3-year aged solar reflectance and thermal emittance or a minimum Solar Reflectance Index (SRI) equal to or greater than the values specified in Tables A4.106.5.1(1) and A4.106.5.1(2) for low-rise residential buildings and Tables A4.106.5.1(3) and A4.106.5.1(4) for high rise residential buildings.							
Low-rise Residential Tier 1 roof covering shall meet or exceed the values		_					
contained in Table A4.106.5.1(1). <b>Tier 2</b> roof covering shall meet or exceed the values contained in Table A4.106.5.1(2).		×22	$\mathbb{X}^2$				
High-rise Residential, Hotels and Motels			9=33				
Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(3). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(4).		⊠²	×2				

ollutant Control		
.504.1 Duct openings and other related air distribution component penings shall be covered during construction.	Mandatory	
.504.2.1 Adhesives, sealants and caulks shall be compliant with OC and other toxic compound limits	Mandatory	
<b>.504.2.2 Paints, stains and other coatings</b> shall be compliant with OC limits.	Mandatory	
<b>.504.2.3 Aerosol paints and coatings</b> shall be compliant with product weighted IR limits for ROC and other toxic compounds.	Mandatory	
<b>.504.2.4 Documentation</b> shall be provided to verify that compliant OC limit finish materials have been used	Mandatory	
.504.3 Carpet and carpet systems shall be compliant with VOC mits	Mandatory	
.504.4 80 percent of floor area receiving resilient flooring shall omply with specified VOC criteria	Mandatory	
.504.5 Particleboard, medium density fiberboard (MDF) and ardwood plywood used in interior finish systems shall comply with w formaldehyde emission standards.	Mandatory	
ndoor Moisture Control		
.505.2 Vapor retarder and capillary break is installed at slab-on-grade oundations	Mandatory	
.505.3 Moisture content of building materials used in wall and floor framing is necked before enclosure Wall and floor framing shall not be enclosed when the aming members exceed 19% moisture content.	Mandatory	
nvironmental Comfort		
.507.2 Heating and air-conditioning system design. Duct systems are sized, esigned, and equipment is selected using the following methods:	Mandatory	
1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J- 2011 or equivalent.	Mandatory	
2. Size duct systems according to ANSI/ACCA 1 Manual D-2014 or equivalent.	Mandatory	
<ol> <li>Select heating and cooling equipment according to ANSI/ACCA 3 Manual S- 2014 or equivalent.</li> </ol>	Mandatory	
nstaller and Special Inspector Qualifications	и. <b>Х</b> и.	
ualifications		
<b>02.1 Installer training.</b> HVAC system installers are trained and certified in the roper installation of HVAC systems.	Mandatory	
<b>02.2 Special inspection.</b> Special inspectors employed by the enforcing agency nust be qualified and able to demonstrate competence in the discipline they are specting.	Mandatory	
erifications		
<b>03.1 Documentation.</b> Verification of compliance with this code may include onstruction documents, plans, specifications, builder or installer certification, spection reports, or other methods acceptable to the enforcing agency which show ubstantial compliance.	Mandatory	

3. These measures are currently required elsewhere in statue or in regulation.

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CalGreen Residential Checklist

	APPLICANT TO	LEVELS	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE		Prerequisites	and electives <sup>1</sup>	Enforcing Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2			
A4.106.6 Install a vegetated roof for at least 50 percent of the roof area. Vegetated roofs shall comply with requirements for roof gardens and landscaped roofs in the <i>California Building</i> <i>Code</i> , Chapters 15 and 16.						
A4.106.7 Reduce nonroof heat islands for 50 percent of sidewalks, patios, driveways or other paved areas by using one or more of the methods listed.						
A4.106.8.1 Tier 1 and Tier 2 for one- and two-family dwellings and townhouses with attached private garages. Install a dedicated 208/240-volt branch circuit, including an overcurrent protective device rated at 40 amperes minimum per dwelling unit.		⊠²	<u>X</u> 2			
A4.106.8.2 Tier 1 and Tier 2 for multifamily dwellings. Provide capability for future electric vehicle charging in 5 percent of total parking spaces, as specified.		<b>X</b> <sup>2</sup>	⊠²			
A4.106.9 Provide bicycle parking facilities as noted belowor meet a local ordinance, whichever is more stringent. Number of bicycle parking spaces may be reduced, as approved by the enforcing agency, due to building site characteristics, including but not limited to, isolation from other development. I. Provide short-term bicycle parking, per Section						
A4.106.9.1. 2. Provide long-term bicycle parking formultifamly						
<ul><li>buildings, per Section A4,106.9.2.</li><li>3. Provide long-term bicycle parking for hotel and motel</li></ul>						
buildings, per Section A4,106.9.3.	-					
<ul> <li>A4.106.10 [HR] Outdoor lighting systems shall be designed and installed to comply with: <ol> <li>The minimum requirements in the <i>California Energy</i> <i>Code</i> for Lighting Zones 1-4; and</li> <li>Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and</li> <li>Allowable BUG ratings not exceeding those shown in Table A4.106.10; or</li> </ol></li></ul>						
Comply with a lawfully enacted local ordinance, whichever is more stringent.						

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	APPLIC	LEVELS ANT TO SELECT MEASURES		VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
FEATURE OR MEASURE	-	Prerequisites	and electives <sup>1</sup>	Enforcin g Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2			
Innovative Concepts and Local Environmental Conditions				-		
A4.108.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1						
Item 2						
Item 3						
ENERGY EFFICIENCY						
General						
4.201.1 Building meets or exceeds the requirements of the California Building Energy Efficiency Standards <sup>3</sup> .		$\mathbb{X}^{2}$	$\mathbb{N}^2$			
Performance Approach for Newly Constructed Buildings						
A4.203.1.1.1 An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance documentation.		×2	<b>⊠</b> ²		۵	
A4.203.1.1.2 QII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.		$\mathbb{X}^2$	$\mathbb{X}^2$			
A4.203.1.1.3 All permanently installed lighting is high efficiency and has required controls.		⊠²	⊠²			
A4.203.1.2.1 The Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.		$\mathbb{X}^2$				
A4.203.1.2.2 The Energy Budget is no greater than 70 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.			<b>⊠</b> <sup>2</sup>			
Performance Approach for Additions and Alterations						
A4.204.1.1.1 All newly installed, permanently installed lighting is high efficacy and has required controls.		$X^2$	$\mathbb{N}^2$			
A4.204.1.2.1 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 95 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.		×22				
A4.204.1.2.2 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.			⊠²			

	APPLICANT TO	LEVELS	IVE MEASURES	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
FEATURE OR MEASURE		Prerequisites	and electives <sup>1</sup>	Enforcing Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2			
WATER EFFICIENCY AND CONSERVATION						
Indoor Water Use						
4.303.1 Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4.303.1.1 through 4.303.1.4.4.	X					
4.303.2 Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable referenced standards.	X					
<ul> <li>A4.303.1 Kitchen faucets. The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi.</li> <li>Note: Where complying faucets are available, aerators or other means may be used to achieve reduction.</li> </ul>						
A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are used for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i> .						
<ul> <li>A4.303.3 Appliances. Dishwashers and clothes washers in residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: <ol> <li>Standard Dishwashers - 4.25 gallons per cycle.</li> <li>Compact Dishwashers - 3.5 gallons per cycle.</li> <li>Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity.</li> </ol> </li> </ul>						
A4.303.4 Nonwater supplied urinals or waterless toilets are installed.						
Outdoor Water Use						
4.304.1 Automatic irrigation systems controllers installed at the time of final inspection shall be weather or soil moisture-based.	X					
A4.304.1 Install a low-water consumption irrigation system which minimizes the use of spray type heads.						
A4.304.2 A rainwater capture, storage and re-use system is designed and installed.						
A4.304.3 A water budget shall be developed for landscape irrigation.		<b>∑</b> <sup>2</sup>	×2			
A4.304.6 For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.						

FEATURE OR MEASURE	APPLICANT TO	LEVELS SELECTELECT	IVEMEASURES	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
		Prerequisites and electives <sup>1</sup>		Enforcin g Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2			
Construction Waste Reduction, Disposal and Recycling						
<ul> <li>4.408.1 Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste in accordance with one of the following: <ol> <li>Comply with a more stringent local construction and demolition waste management ordinance; or</li> <li>A construction waste management plan, per Section 4.408.2; or</li> <li>A waste management company, per Section 4.408.3; or</li> <li>The waste stream reduction alternative, per Section 4.408.4.</li> </ol> </li> </ul>	X				D	
<ul> <li>A4.408.1 Construction waste generated at the site is diverted to recycle or salvage in compliance with one of the following: <ol> <li>Tier 1 at least a 65 percent reduction.</li> <li>Tier 2 at least a 75 percent reduction.</li> </ol> </li> <li>Exception: Equivalent waste reduction methods are developed by working with local agencies.</li> </ul>		×2	⊠²			
Building Maintenance and Operation						
4.410.1 An operation and maintenance manual shall be provided to the building occupant or owner.	X					
Innovative Concepts and Local Environmental Conditions						
A4.411.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item I						
Item 2						
Item 3						
ENVIRONMENTAL QUALITY						
Fireplaces					1	
<b>4.503.1</b> Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	X					
Pollutant Control						
4.504.1 Duct openings and other related air distribution component openings shall be covered during construction.	X					
4.504.2.1 Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits.	×					
4.504.2.2 Paints, stains and other coatings shall be compliant with VOC limits.	X					
4.504.2.3 Aerosol paints and coatings shall be compliant with product weighted MIR limits for ROC and other toxic compounds.	X					
4.504.2.4 Documentation shall be provided to verify that compliant VOC limit finish materials have been used.	X					

	APPLICANT TO	LEVELS SELECT ELECTI	VE MEASURES	VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE		Prerequisites and electives <sup>1</sup>		Enforcing Agency	Installer or Designer	Third party	
	Mandatory	Tier 1	Tier 2				
4.504.3 Carpet and carpet systems shall be compliant with VOC limits.	X						
4.504.4 80 percent of floor area receiving resilient flooring shall comply with specified VOC criteria.	X						
4.504.5 Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.	X						
A4.504.1 Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.							
A4.504.2 Install VOC compliant resilient flooring systems. Tier 1. At least 90 percent of the resilient flooring installed shall comply. Tier 2. At least 100 percent of the resilient flooring installed shall comply.		⊠²	⊠²				
<ul> <li>A4.504.3 Thermal insulation installed in the building shall meet the following requirements:</li> <li>Tier 1. Install thermal insulation in compliance with VOC limits.</li> <li>Tier 2. Install insulation which contains No-Added Formaldehyde (NAF) and is in compliance with Tier 1.</li> </ul>		⊠²	⊠²				
Interior Moisture Control							
4.505.2 Vapor retarder and capillary break is installed at slab-on-grade foundations.	X						
4.505.3 Moisture content of building materials used in wall and floor framing is checked before enclosure.	X						
Indoor Air Quality and Exhaust		~					
A4.506.1 Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.							
A4.506.2 [HR] Provide filters on return air openings rated MERV 6 or higher during construction when it is necessary to use HVAC equipment.							
A4.506.3 Direct-vent appliances shall be used when equipment is located in conditioned space; or the equipment must be installed in an isolated mechanical room.							

	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE		Prerequisites	and electives <sup>1</sup>	Enforcin g Agency	Installer or Designer	Third party	
	Mandatory	Tier 1	Tier 2	S All	S All	All	
<ul> <li>A4.304.4 Provide water efficient landscape irrigation design that reduces the use of potable water.</li> <li>Tier 1. Does not exceed 65 percent of <i>ETo</i> times the landscape area.</li> <li>Tier 2. Does not exceed 60 percent of <i>ETo</i> times the landscape area.</li> </ul>		⊠²	×2				
A4.304.5 A landscape design is installed which does not utilize potable water.							
A304.6 For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.							
WATER REUSE SYSTEMS							
A4.305.1 Piping is installed to permit future use of a graywater irrigation system served by the clothes washer or other fixtures.							
A4.305.2 Recycled water piping is installed.							
A4.305.3 Recycled water is used for landscape irrigation.							
Innovative Concepts and Local Environmental Conditions							
A4.306.1 Items in this section are necessary to address innovative concepts or local environmental conditions.							
Item I							
Item 2							
Item 3							
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY							
Foundation Systems		1	1 1	-			
A4.403.1 A Frost-protected Shallow Foundation (FPSF) is designed and constructed.							
<ul> <li>A4.403.2 Cement use in foundation mix design is reduced.</li> <li>Tier 1. Not less than a 20 percent reduction in cement use.</li> <li>Tier 2. Not less than a 25 percent reduction in cement use.</li> </ul>		⊠²	⊠ <sup>2</sup>				
Efficient Framing Techniques							
A4.404.1 Beams and headers and trimmers are the minimum size to adequately support the load.							
A4.404.2 Building dimensions and layouts are designed to minimize waste.							
A4.404.3 Use premanufactured building systems to eliminate solid sawn lumber whenever possible.							
A4.404.4 Material lists are included in the plans which specify material quantity and provide direction for on-site cuts.							

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
		Prerequisites and electives <sup>1</sup>		Enforcin	Installer or	Third
	Mandatory	Tier 1	Tier 2	g Agency	Designer	party
Environmental Comfort						
4.507.1 Reserved.						
<ul> <li>4.507.2. is selected using the following methods: <ol> <li>Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2004 or equivalent.</li> <li>Size duct systems according to ANSI/ACCA 1 Manual D-2009 or equivalent.</li> <li>Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2004 or equivalent.</li> </ol></li></ul>	X					
Outdoor Air Quality Reserved						
Innovative Concepts and Local Environmental Conditions						
A4.509.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1						
Item 2						
Item 3			٥			
Installer and Special Inspector Qualifications						
Qualifications	-					
<b>702.1</b> HVAC system installers are trained and certified in the proper installation of HVAC systems.	×					
702.2 Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting.	X					
Verifications						
<b>703.1</b> Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.	X					

Required prerequisite for this Tier.
 These measures are currently required elsewhere in statute or in regulation.

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
		Prerequisites	Prerequisites and electives <sup>1</sup>		Installer or Designer	Third	
	Mandatory	Tier 1	Tier 2	g Agency			
Material Sources							
<ul> <li>A4.405.1 One or more of the following building materials, that do not require additional resources for finishing are used:</li> <li>1. Exterior trim not requiring paint or stain</li> <li>2. Windows not requiring paint or stain</li> <li>3. Siding or exterior wall coverings which do not require paint or stain</li> </ul>							
A4.405.2 Floors that do not require additional coverings are used including but not limited to stained, natural or stamped concrete floors.							
A4.405.3 Postconsumer or preconsumer recycled content value (RCV) materials are used on the project. Tier 1. Not less than a 10-percent recycled content value. Tier 2. Not less than a 15-percent recycled content value.		۲	⊠²				
A4.405.4 Renewable source building products are used.							
Enhanced Durability and Reduced Maintenance							
4.406.1 Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.	X						
Water Resistance and Moisture Management							
A4.407.1 Install foundation and landscape drains.		D	D	55			
A4.407.2 Install gutter and downspout systems to route water at least 5 feet away from the foundation or connect to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved on-site location.							
A4.407.3 Provide flashing details on the building plans and comply with accepted industry standards or manufacturer's instructions.							
A4.407.4 Protect building materials delivered to the construction site from rain and other sources of moisture.							
A4.407.5 In Climate Zone 16 an ice/water barrier is installed at roof valleys, eaves and wall to roof intersections.	-			۵	٥		
A4.407.6 Exterior doors to the dwelling are protected to prevent water intrusion.							
A4.407.7 A permanent overhang or awning at least 2 feet in depth is provided.							

