

BUILDING ENERGY ANALYSIS REPORT



Pleasanton, CA

Project Designer:



Report Prepared by:



Job Number:

Date:

4/1/2015

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2013 Building Energy Efficiency Standards.

This program developed by EnergySoft, LLC – www.energysoft.com.

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PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) **PERF-1C**

Project Name			Date
[Redacted]			4/1/2015
Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
[Redacted]	CA Climate Zone 12	131,672	n/a

GENERAL INFORMATION

Building Type:	<input type="checkbox"/> Nonresidential	<input checked="" type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Hotel/Motel Guest Room
	<input type="checkbox"/> Relocatable - indicate	<input type="checkbox"/> specific climate zone	<input type="checkbox"/> all climates
Phase of Construction:	<input checked="" type="checkbox"/> New Construction	<input type="checkbox"/> Addition	<input type="checkbox"/> Alteration

STATEMENT OF COMPLIANCE
 This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Name	[Redacted]	Signature	[Redacted]
Company	[Redacted]	Date	4/1/2015
Address	[Redacted]	Phone	[Redacted]
City/State/Zip	[Redacted]		

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110.0, 116.0 through 118.0, and 140.0 through 149.0 of Title 24, Part 6. Please check one:

ENV. LG. MECH.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Principal Envelope Designer

Name	[Redacted]	Signature	[Redacted]
Company	[Redacted]	Date	
Address	[Redacted]	License #	
City/State/Zip	[Redacted]	Phone	[Redacted]

Principal Mechanical Designer

Name	[Redacted]	Signature	[Redacted]
Company	[Redacted]	Date	
Address	[Redacted]	License #	
City/State/Zip	[Redacted]	Phone	[Redacted]

Principal Lighting Designer

Name	[Redacted]	Signature	[Redacted]
Company	Lighting Compliance Not In The Scope Of This Submittal	Date	
Address	[Redacted]	License #	
City/State/Zip	[Redacted]	Phone	[Redacted]

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

<input checked="" type="checkbox"/> ENV-01	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MCH-01	Certificate of Compliance. Required on plans.
<input type="checkbox"/> LTI-01	Certificate of Compliance. Required on plans.	<input checked="" type="checkbox"/> MCH-02	HVAC Air/Water Side Requirements.
<input type="checkbox"/> LTI-02	Lighting Controls Credit Worksheet.	<input checked="" type="checkbox"/> MCH-03	Mechanical Ventilation and Reheat.
<input type="checkbox"/> LTI-03	Indoor Lighting Power Allowance.	<input checked="" type="checkbox"/> MCH-08	Mechanical Equipment Details.

PERFORMANCE CERTIFICATE OF COMPLIANCE

(Part 2 of 3)

PERF-1C

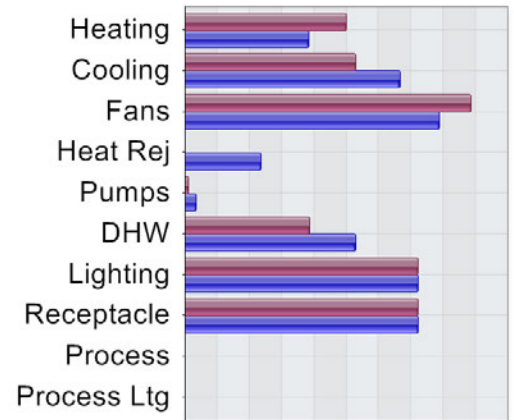
Project Name

Date

4/1/2015

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	19.12	25.03	-5.91
Space Cooling	33.33	26.50	6.83
Indoor Fans	39.37	44.35	-4.98
Heat Rejection	11.77	0.00	11.77
Pumps & Misc.	1.72	0.51	1.21
Domestic Hot Water	26.40	19.30	7.10
Lighting	36.11	36.11	0.00
Receptacle	36.11	36.11	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	203.91	187.90	16.01



Percent better than Standard 7.9 % (7.9 % excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(E) 90 deg	Conditioned Floor Area	131,672	sqft.
Number of Stories	4	Unconditioned Floor Area	0	sqft.
Number of Systems	162	Conditioned Footprint Area	46,341	sqft.
Number of Zones	22	Natural Gas Available On Site	Yes	

	Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(E)	38,043 sqft.	6,429 sqft.	16.9 %
Left Elevation	(S)	14,211 sqft.	1,144 sqft.	8.1 %
Rear Elevation	(W)	37,287 sqft.	5,278 sqft.	14.2 %
Right Elevation	(N)	16,628 sqft.	2,195 sqft.	13.2 %
Total		106,169 sqft.	15,046 sqft.	14.2 %
Roof		40,777 sqft.	0 sqft.	0.0 %

Prescriptive Lighting Power Density

Standard	0.000
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 W/sqft.

Proposed	0.000
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 W/sqft. Prescriptive Values for Comparison only. See LTI-01 for allowed LPD.

Remarks:

PERFORMANCE CERTIFICATE OF COMPLIANCE

(Part 3 of 3)

PERF-1C

Date
4/1/2015

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf) ¹	Ctrl. Credits (W/sf) ²	Allowed LPD		Proc. Loads (W/sf)
						Area (W/sf) ³	Tailored (W/sf) ⁴	
19HXX-C/ CH14NA 018	Unit A (Lv1-3) 13 Units	High-Rise Residential Living	7,852	*0.500				
	Unit B1 (Lv1-3) 11Units	High-Rise Residential Living	7,757	*0.500				
	Unit B (Lv1-3) 39Units	High-Rise Residential Living	28,287	*0.500				
	Unit B4 (Lv1-3) 5Units	High-Rise Residential Living	3,528	*0.500				
32HXX-C/ CH14NA 024	Unit C1 6Units	High-Rise Residential Living	5,752	*0.500				
	Unit D1 (Lv1) 2Units	High-Rise Residential Living	2,148	*0.500				
	Unit D-a (Lv1) 2Units	High-Rise Residential Living	2,088	*0.500				
	Unit E1 (Lv1-2) 2Units	High-Rise Residential Living	2,274	*0.500				
	Unit E (Lv1-3) 17Units	High-Rise Residential Living	17,935	*0.500				
30HBXX-C/ CH14NA 030	Unit G (Lv1-2) 4Units	High-Rise Residential Living	5,304	*0.500				
36HBXX-C/ CH14NA 036	Unit H-a 3Units	High-Rise Residential Living	4,080	*0.500				
19HXX-C/ CH14NA 018	Unit A (Lv2-4) 6Units	High-Rise Residential Living	3,654	*0.500				
	Unit B1 (Lv2-3) 7Units	High-Rise Residential Living	4,224	*0.500				
	Unit B (Lv3-4) 10Units	High-Rise Residential Living	7,198	*0.500				
	Unit B2 (Lv3) 10 Units	High-Rise Residential Living	7,013	*0.500				
	Unit B4 (Lv3-4) 4Units	High-Rise Residential Living	2,815	*0.500				
32HXX-C/ CH14NA 024	Unit C1 2Units	High-Rise Residential Living	1,902	*0.500				
	Unit D1 (Lv3) 1Unit	High-Rise Residential Living	1,161	*0.500				
	Unit D (Lv3) 1Unit	High-Rise Residential Living	1,041	*0.500				
	Unit E (Lv2-4) 11Units	High-Rise Residential Living	11,649	*0.500				

Notes: 1. See LTI-01 (items marked with asterisk, see LTI-01 by others) 2. See LTI-02 3. See LTI-03 (by others) 4. See LTI-04 Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Building has 149 Dwelling Units. This has been used in the Highrise Residential DHW calcs.

The HVAC System 19HXX-C/ CH14NA 018 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 32HXX-C/ CH14NA 024 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 30HBXX-C/ CH14NA 030 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 36HBXX-C/ CH14NA 036 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 19HXX-C/ CH14NA 018 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 32HXX-C/ CH14NA 024 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 30HBXX-C/ CH14NA 030 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The HVAC System 36HBXX-C/ CH14NA 036 incorporates HERS verified Duct Leakage. Target leakage is calculated and documented on the MECH-4-A.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

A. GENERAL INFORMATION											
1	Project Location:	[REDACTED]				6	Compliance Method:	<input checked="" type="checkbox"/> Component <input type="checkbox"/> Unconditioned (file Affidavit)			
2	CA City and Zip Code:	Pleasanton,				7	Building Front Orientation (deg or cardinal):	90 deg			
3	Climate Zone:	12				8	Permitted Scope of Work	<input checked="" type="checkbox"/> New Construction <input type="checkbox"/> Addition <input type="checkbox"/> Alteration			
4	Total Conditioned Floor Area:	[REDACTED]				9	Building Type(s)	<input type="checkbox"/> Nonresidential <input checked="" type="checkbox"/> High-Rise Residential <input type="checkbox"/> Hotel/Motel Guest Room			
5	<input type="checkbox"/> Schools (Public School) <input type="checkbox"/> Relocatable Public School Bldg. <input checked="" type="checkbox"/> Conditioned Spaces <input type="checkbox"/> Unconditioned Spaces <input type="checkbox"/> Skylight Area for Large Enclosed Space > 5000 ft ² (If checked include the NRCC-ENV-04-E with submittal)										

B. ENVELOPE DETAILS – Framed										
1	2	3	4	5	6	7	8	9	10	11
Tag/ID	Assembly Type	Frame Material	Frame Depth	Frame Spacing	Appendix JA4 Reference	Cavity R-value	Continuous Insulation R-value	Proposed U-Factor	Required U-Factor From Tables, B, C, D	Comments
1	Wall	Wood	2x6 @ 16		4.3.1-A6	21	0.0	0.069		R-21 Wall
2	Wall	Wood	2x4 @ 16		4.3.1-A3	13	0.0	0.102		R-13 Wall
3	Roof	Wood	2x4 @ 16		4.2.1-A9	38	0.0	0.026		R-38 Roof Attic

C. ENVELOPE DETAILS – Non-framed										
1	2	3	4	5	6	7	8	9	10	11
Tag/ID	Assembly Type	Assembly Materials	Thickness (inches)	Interior or Core Insulation R-value	Continuous Insulation R-value	Appendix JA4 Reference	Proposed U-Factor	Required U-Factor from Tables, B, C, D	Comments	
1	Door	Metal, Double-layer		0	0.0	4.5.1-A2	0.700		Hollow Metal Door	

D. ENVELOPE DETAILS – Mass										
1	2	3	4	5	6	7	8	9	10	11
Tag/ID	Mass Type	Density (lb/ft ³)	Mass Thickness (inches)	Furring Strip Thickness (inches)	Interior Insulation R-value	Exterior Insulation R-value	Appendix JA4 Reference	Proposed Insulation U-factor	Required U-Factor from Tables, B, C, D	Comments
1	Floor	7.0			0.0	0.0	4.4.6-A1	0.269		Uninsulated Raised Slab

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



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NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

E. ROOFING PRODUCTS (COOL ROOF)										
1	2	3	4	5			6			11
Mass Roof 25 lb ft ² or greater	Roof Pitch	CRRC Product ID Number	Product Type	Proposed			Minimum Required			Comments
				Aged Solar Reflectance	Thermal Emittance	SRI ² (Optional)	Aged Solar Reflectance	Thermal Emittance	SRI (optional)	
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/>				<input type="checkbox"/> ¹						
<input type="checkbox"/> An aged solar reflectance less than 0.63 is allowed provided the maximum roof / ceiling U-factor in TABLE 140.3 is not exceeded										
<input type="checkbox"/> High-rise residential buildings and Hotels and Motels with low-sloped roofs in Climate Zones 1 through 8, 12 and 16 are exempted from aged Solar Reflectance and emittance requirements.										
<input type="checkbox"/> High-rise residential buildings and Hotels and Motels with steep-sloped roofs in Climate Zones 1 and 16 are exempt from aged Solar Reflectance and emittance requirements.										
<input type="checkbox"/> The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels are exempt from aged Solar Reflectance and emittance requirements										
To apply Liquid Field Applied Coatings , the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §110.8(i)4. Select the applicable coating:										
<input type="checkbox"/> Aluminum-Pigmented Asphalt Roof Coating <input type="checkbox"/> Cement-Based Roof Coating <input type="checkbox"/> Other _____										
NOTES: 1. Check the box if the aged Solar reflectance was not available in the Cool Roof Rating Council's Rated Product Directory, Then use the equation in Section 110.8(i)2 where the Initial Reflectance value from the same directory and use the equation $(0.2+B(p_{initial} - 0.2))$ to obtain a calculated aged value. Where p is the Initial Solar Reflectance and B is either set to 0.65 for Field-Applied Coatings or it is set to 0.70 for all other roofing products other than Field-Applied Coating. 2. Calculate the SRI Value by using the SRI-Worksheet at (TBD) and enter the resulting value in the SRI Column above and attach a copy for the SRI-Worksheet NRCC-ENV-03-E to the to this form.										

F. Air Barrier				
1	2	3	4	5
Tag/ID	Air Barrier Material Type	Air Barrier Assembly Type	Whole Building Air Leakage Testing	Comments

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

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NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
1	Vinyl Low-E Single Hung Winc	30	East	2	0.28	No	0.22	0.50		New	
2	Vinyl Low-E French Door	21	East	2	0.27	No	0.17	0.50		New	
3	Vinyl Low-E Single Hung Winc	41	East	2	0.28	No	0.22	0.50		New	
4	Vinyl Low-E Single Hung Winc	30	East	2	0.28	No	0.22	0.50		New	
5	Vinyl Low-E French Door	21	East	2	0.27	No	0.17	0.50		New	
6	Vinyl Low-E Single Hung Winc	41	East	2	0.28	No	0.22	0.50		New	
7	Vinyl Low-E Single Hung Winc	30	North	2	0.28	No	0.22	0.50		New	
8	Vinyl Low-E French Door	21	North	2	0.27	Yes	0.17	0.50		New	
9	Vinyl Low-E Single Hung Winc	41	North	2	0.28	No	0.22	0.50		New	

H. ENVELOPE MANDATORY MEASURESIndicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM**INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)***For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual.*

- NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
- NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

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1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
10	Vinyl Low-E Single Hung Winc	30	North	2	0.28	No	0.22	0.50		New	
11	Vinyl Low-E French Door	21	North	2	0.27	Yes	0.17	0.50		New	
12	Vinyl Low-E Single Hung Winc	41	North	2	0.28	Yes	0.22	0.50		New	
13	Vinyl Low-E Single Hung Winc	30	East	2	0.28	No	0.22	0.50		New	
14	Vinyl Low-E French Door	24	East	2	0.27	Yes	0.17	0.50		New	
15	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
16	Vinyl Low-E Single Hung Winc	30	East	2	0.28	No	0.22	0.50		New	
17	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
18	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	

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1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
19	Vinyl Low-E Single Hung Winc	30	North	2	0.28	No	0.22	0.50		New	
20	Vinyl Low-E French Door	21	North	2	0.27	Yes	0.17	0.50		New	
21	Vinyl Low-E Single Hung Winc	41	North	2	0.28	Yes	0.22	0.50		New	
22	Vinyl Low-E Single Hung Winc	90	West	2	0.28	No	0.22	0.50		New	
23	Vinyl Low-E French Door	63	West	2	0.27	Yes	0.17	0.50		New	
24	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	
25	Vinyl Low-E Single Hung Winc	90	West	2	0.28	No	0.22	0.50		New	
26	Vinyl Low-E French Door	72	West	2	0.27	Yes	0.17	0.50		New	
27	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	

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1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
28	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
29	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
30	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
31	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
32	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
33	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
34	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
35	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
36	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	

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ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

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CERTIFICATE OF COMPLIANCE

NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
37	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
38	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
39	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
40	Vinyl Low-E French Door	21	East	2	0.27	Yes	0.17	0.50		New	
41	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
42	Vinyl Low-E Single Hung Winc	41	East	2	0.28	Yes	0.22	0.50		New	
43	Vinyl Low-E French Door	63	West	2	0.27	Yes	0.17	0.50		New	
44	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	
45	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	

H. ENVELOPE MANDATORY MEASURESIndicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM**INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)***For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual.*

- NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
- NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
46	Vinyl Low-E French Door	63	West	2	0.27	Yes	0.17	0.50		New	
47	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	
48	Vinyl Low-E Single Hung Winc	123	West	2	0.28	Yes	0.22	0.50		New	
49	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
50	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	
51	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
52	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
53	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
54	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	

H. ENVELOPE MANDATORY MEASURESIndicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM**INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)***For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual.*

- NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
- NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



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Date Prepared: 4/1/2015

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES											
1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
55	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
56	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
57	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	
58	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
59	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
60	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	
61	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
62	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
63	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	

H. ENVELOPE MANDATORY MEASURES	
Indicate location on building plans of Mandatory Envelope Measures Note Block: <u>ENV-MM</u>	
INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)	
<i>For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual.</i>	
<input checked="" type="checkbox"/>	NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
<input type="checkbox"/>	NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

ENVELOPE COMPONENT APPROACH

CEC-NRCC-ENV-01-E (Revised 06/14)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-ENV-01-E

Envelope Component Approach

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Date Prepared: 4/1/2015

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

1	2	3	4	5	6	7	8	9	10	11	12
Tag/ID	Fenestration Type	Area	Orientation N, S, W, E or Roof	# of Panels	Max U-Factor	Overhang	Max (R)SHGC	Min VT	Label	Conditions Status	Comments
64	Vinyl Low-E French Door	21	South	2	0.27	Yes	0.17	0.50		New	
65	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
66	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	
67	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	
68	Vinyl Low-E Single Hung Winc	30	West	2	0.28	Yes	0.22	0.50		New	
69	Vinyl Low-E French Door	21	North	2	0.27	Yes	0.17	0.50		New	
70	Vinyl Low-E Single Hung Winc	36	North	2	0.28	No	0.22	0.50		New	
71	Vinyl Low-E Single Hung Winc	30	North	2	0.28	Yes	0.22	0.50		New	
72	Vinyl Low-E Single Hung Winc	36	West	2	0.28	No	0.22	0.50		New	

H. ENVELOPE MANDATORY MEASURESIndicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM**INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)***For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, please refer to the Nonresidential Compliance Manual.*

- NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
- NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.