

DOCKETED

Docket Number:	24-BSTD-03
Project Title:	2025 Energy Code Compliance Software, Manuals and Forms
TN #:	263762
Document Title:	2025 Low-Rise Certificates of Compliance (LMCC)
Description:	This draft Low-Rise Certificates of Compliance (LMCC) will be subject for vote during an Energy Commission Business Meeting. 2025 Energy Code compliance documents to record compliance with the 2025 Energy Code.
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Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	6/3/2025 10:48:44 AM
Docketed Date:	6/3/2025

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with mandatory commissioning requirements in §120.8 for nonresidential buildings and hotel/motel or mixed-use buildings with nonresidential spaces. This document does not demonstrate compliance with commissioning requirements within Title 24, Part 11, which need to be documented separately if they apply.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. GENERAL INFORMATION

01	Project Location (city)		04	Building Size (ft ²)	
02	Project Type		05	Nonresidential Conditioned Floor Area (ft ²)	
03	Occupancy Type		06	HVAC System Type	
			07	Climate Zone	

STOP! Occupancy types that are not nonresidential, hotel/motel with nonresidential occupancies, or mixed-use, and project types which are additions or alterations, are not required to comply with commissioning requirements in §120.8 and do not need to complete this compliance document.

STOP! Healthcare facilities are not required to comply with the Commissioning requirements in Part 6, but must comply with the applicable requirements in Chapter 7 of Title 24, Part 1 (HCAI).

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

Based on project information provided in Table A, Table B indicates which commissioning related requirements apply per §120.8. Table B is not editable by the user.

Commissioning Requirements per §120.8

01	Table F: Design Review Kickoff	§120.8(d)1 and §120.8(d)2	The design review kickoff meeting establishes who will play the role of the design reviewer, the project schedule and identify owner's requirements. This meeting should be conducted during schematic design.
02	Table G: Owner's Project Requirements (OPR)	§120.8(b)	The owner's project requirements establish the owner's goals, requirements, and expectations for everything related to energy consumption and operation. This should be completed during schematic design.
03	Table H: Basis of Design (BOD)	§120.8(c)	The basis of design documents the design elements such as calculations and product selections that meet the owner's project requirements and applicable regulatory requirements. This should be completed during schematic design.
04	Table I: Design Review	§120.8(d) and §120.8(e)	The design reviewer(s) reviews the construction documents for clarity, completeness, and adherence to the owner's goals. Commissioning measures must be included in the construction documents to facilitate the design review and commissioning process. For projects with $\geq 10,000$ ft ² of nonresidential conditioned floor area, the design review is for adherence with the Owner's Project Requirements (OPR) and Basis of Design (BOD). This should be conducted during design.
05	Table J: Commissioning Plan	§120.8(f)	The commissioning plan is developed by the commissioning provider with input from the designer and defines the scope of commissioning the project. This should be drafted during design and completed during early construction.
06	Table K: Functional Performance Testing	§120.8(g)	Functional performance testing is conducted on building systems to demonstrate correct installation and operation.
07	Table L: Documentation and Training	§120.8(h)	Documentation of the operational aspects of the building shall be completed within the Systems Manual and delivered to the building owner or representative and facilities operator.
08	Table M: Commissioning Report	§120.8(i)	A complete report of commissioning process activities undertaken through the design, construction, and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or representative.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Table C will indicate if the project data input into the compliance document is compliant with commissioning requirements per §120.8. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03	04	05	06	07	08	09
Design Review Kickoff	Owners Project Requirements	Basis of Design	Design Review	Commissioning Plan	Functional Performance Testing	Documentation and Training	Commissioning Report	Compliance Results
Table F	Table G	Table H	Table I	Table J	Table K	Table L	Table M	
YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	COMPLIES or DOES NOT COMPLY
10	Design Reviewer(s) for the project include:							COMPLIES or DOES NOT COMPLY

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. DESIGN REVIEW KICKOFF MEETING**

This table indicates that the design reviewer meets the qualification requirements per Title 24, Part 1 Section 10-103(a)1 and demonstrates compliance with design review kickoff requirements per §120.8(d)2. This meeting should occur during the Schematic Design phase of the project.

Design Review Kickoff Meeting Details

01	Date of Design Review Kickoff Meeting	
02	Meeting Attendees: (one person may play multiple roles)	
<input type="checkbox"/>	Owner/ Facility Manager: _____	<input type="checkbox"/> Design Reviewer(s): _____
<input type="checkbox"/>	Project Manager: _____	<input type="checkbox"/> Design Architect/ Engineer(s): _____
<input type="checkbox"/>	Contractor: _____	<input type="checkbox"/> Certified Acceptance Test Tech(s): _____
<input type="checkbox"/>	Commissioning Provider: _____	<input type="checkbox"/> Energy/ T24 Part 6 Consultant: _____

Design Reviewer Qualifications per Title 24, Part 1 Section 10-103(a)1

The design reviewer(s) must be licensed professional engineers or licensed architects, or licensed contractors representing services performed by or under the direct supervision of a licensed engineer or architect, as specified in the provisions of Division 3 of the Business and Professions Code.		Do the Design Reviewer(s) meet these qualifications?	
03	In addition, for buildings with < 10,000 ft ² , the design reviewer(s) may be the engineer or architect of record. The design reviewer(s) may also be a qualified in-house engineer or architect with no other project involvement or a third-party engineer, architect or contractor.	YES	NO
		<input type="radio"/>	<input checked="" type="radio"/>
03	In addition, for buildings with ≥ 10,000 ft ² but < 50,000 ft ² , the design reviewer(s) shall be a qualified in-house engineer or architect with no other project involvement or a third-party engineer, architect, or contractor.	YES	NO
		<input type="radio"/>	<input checked="" type="radio"/>
03	In addition, for buildings with ≥ 50,000 ft ² , or complex mechanical systems, the design reviewer(s) shall be a third-party design engineer, architect, or contractor.	YES	NO
		<input type="radio"/>	<input checked="" type="radio"/>
04	The design reviewer(s) for this project will be: _____		

¹ FOOTNOTE: Complex Mechanical Systems are systems that include 1) fan systems each serving multiple thermostatically controlled zones, or 2) built-up air handler systems (non-unitary or nonpackaged HVAC equipment), or 3) hydronic or steam heating systems, or 4) hydronic cooling systems.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Preliminary Construction Schedule**

		Start Date	Completion Date
05	Schematic Design		
06	Design Development		
07	Construction Documents		
08	Construction		
09	Building Turnover		

Please proceed to Table G. to complete an Owners Project Requirements (OPR) Document per §120.8(b).

Project Goals Related to Energy Efficiency

10	Operational Costs	
11	Desired Building Lifespan	
12	Equipment Lifecycle	
13	Project Energy Efficiency Goals	
14	Envelope Goals	
15	HVAC System Goals	
16	Indoor Lighting System Goals	
17	Outdoor Lighting System Goals	
18	Water Heating System Goals	
19	Equipment and System Specifications	
20	Operations and Maintenance	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****G. OWNER'S PROJECT REQUIREMENTS (OPR)**

This table is only completed if an OPR document is not attached to the permit application to demonstrate compliance with §120.8(b). If a specific field is not applicable to the project scope, "NA" is indicated in the table. Per §120.8(b), the OPR is to be completed before design begins. This may be done at the Design Review Kickoff Meeting (see Table F).

01	Attaching Completed Owner's Project Requirements Document?	YES	NO
		<input type="radio"/>	<input type="radio"/>
02	Owners Project Requirements Document Authors and Roles		

Energy Efficiency Goals: General

03	What is the target total energy usage per square foot per year? (ie, Energy Use Intensity (EUI) in kBtu/ft ²)	
04	What is the target total energy cost per square foot per year?	
05	Is kW demand control specifically an interest of the client or the design team? If so, for what reason?	
06	What are the project goals and requirements for building siting that will impact energy use?	
07	What are the project goals and requirements for landscape that will impact energy use?	
08	Additional notes regarding general efficiency.	

Energy Efficiency Goals: Envelope

09	What are the project goals and requirements for building fenestration that will impact energy use?	
10	What are the project goals and requirements for walls/floors that will impact energy use?	
11	What are the project goals and requirements for building roof that will impact energy use?	
12	Additional notes regarding envelope efficiency.	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Energy Efficiency Goals: HVAC Systems**

13	List the HVAC system types considered desirable, and ones that are not to be considered.	
14	What is the desired thermostatic setpoint range in the heating season, and cooling season?	
15	What is the expected occupancy schedule? Will the occupants be allowed to override the mechanical system controls during “unoccupied hours?”	
16	Are there times during the day that the zone temperature is allowed to drift out of the temperature setpoint range? If so, how long and what times are acceptable.	
17	Is it acceptable to let the facility cool down to a night setback temperature in the winter?	
18	Is it acceptable to let the facility temperature drift above setpoint during the summer evenings?	
19	How many days out of the year is it acceptable to not meet the entire cooling/heating load?	
20	Are there zones with special temperature, humidity, air filtering, etc., requirements? If so, identify and list the special environmental control requirements.	
21	What expectations are there around building ventilation?	
22	Is occupancy-based demand control ventilation (DCV) desired, or required?	
23	Is a building automation system (BAS) desired? If so, what are the requirements of the BAS and what value is expected to be added with the BAS?	
24	Will zone setpoints be controlled locally by the user, or via the BAS only by the maintenance staff?	
25	Will the airside system sequences of operation be specified as ASHRAE Guideline 36?	
26	Will the waterside system sequences of operation be specified as ASHRAE Guideline 36?	
27	Explain the requirements of the HVAC system in regards to temperature, humidity and draft control.	
28	Explain the requirements of the facility with regards to indoor air quality.	
29	What are the acoustic requirements of the HVAC system within the various spaces of the facility?	
30	Describe the maintenance plan and how the HVAC design needs to address operation and maintenance issues.	
31	Additional notes regarding HVAC system efficiency.	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Energy Efficiency Goals: Indoor Lighting Systems**

32	Describe specific lighting requirements including quality and glare.	
33	List the desired types of lighting (if any) and ones that are not to be considered. (example: fluorescent in 2x2 grid, accent lighting, particular lamps)	
34	Describe (if any) task lighting requirements.	
35	Describe any desired features of the lighting control system including occupancy, daylighting, and demand response if applicable.	
36	What is the expected occupancy schedule? Will the occupants be allowed to override the lighting system controls during “unoccupied hours”?	
37	Does occupancy-based control need to be coordinated with mechanical demand control ventilation?	
38	Describe how occupants will interact with the lighting control system (overrides etc.)	
39	Additional notes regarding Indoor Lighting system efficiency.	

Energy Efficiency Goals: Outdoor Lighting Systems

40	Describe specific outdoor lighting requirements.	
41	List the desired types of outdoor lighting, including lighting for building façade, landscape, walkways, roof-top, etc. if applicable.	
42	Describe any features of the outdoor lighting control system, including motion sensors, photocontrol, time-switch and automatic scheduling.	
43	Describe how occupants will interact with the lighting control system (overrides etc.)	
44	Additional notes regarding Outdoor lighting system efficiency.	

Energy Efficiency Goals: Water Heating Systems

45	Describe what the water heating system will be used for and expected demand?	
46	Describe the desired type (if any) of water heating system and those that should not be considered. (example: instantaneous, heat pump, manufacturer, etc.)	
47	What are the desired automation features and controls for the water heating system.	
48	What are the efficiency requirements of the water heating system?	
49	Additional notes regarding Water Heating system efficiency.	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Operation and Maintenance Requirements**

50	Desired building lifespan	
51	What are the broad goals relative to life cycle of the equipment?	
52	What is the desired level of training and orientation for building occupants to understand and use the building systems?	
53	What is the desired level of training and orientation for O&M staff to understand and maintain the building systems?	

H. BASIS OF DESIGN (BOD)

This table is only completed if a BOD document is not attached to the permit application to demonstrate compliance with §120.8(c). If a specific field is not applicable to the project scope, "NA" is indicated in the table. Per §120.8(c), the BOD should be completed and updated during the design phase.

01	Attaching Completed Basis of Design Document?	YES	NO
		<input type="radio"/>	<input type="radio"/>
02	Basis of Design Document Authors and Roles		

Title 24 Part 6 Compliance Approach

03	Title 24, Part 6 Compliance Approach (select one):	<input type="checkbox"/> Prescriptive	<input type="checkbox"/> Performance	<input type="checkbox"/> Both (Prescriptive and Performance)
04	If both, describe prescriptive scopes and performance scopes:			

General Energy Efficiency Goals

05	Energy Use Intensity (EUI)	
06	Energy Cost Budget	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Envelope Basis of Design**

07	Window to Wall Ratio	
08	Opaque Wall Assembly	
09	Window Performance	
10	Response to OPR Document	

HVAC System Basis of Design

11	HVAC System Design	
12	Heating System Description	
13	Cooling System Description	
14	Ventilation System Description	
15	Control Intent Narrative/ Sequence of Operations	
16	Outside Air Supply	
17	Load Calculations	
18	Indoor Design Conditions	
19	Response to OPR Document	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Indoor Lighting System Basis of Design**

20	Indoor Lighting System Narrative	
21	Fixture Types	
22	Lamp and Ballast Types	
23	Control Types	
24	Control Intent Narrative/ Sequence of Operations	
25	Response to OPR Document	

Outdoor Lighting System Basis of Design

26	Outdoor Lighting System Narrative	
27	Fixture Types	
28	Lamp and Ballast Types	
29	Control Types	
30	Control Intent Narrative/ Sequence of Operations	
31	Response to OPR Document	

Water Heating System Basis of Design

32	Water Heating System Narrative	
33	Water Heating Load Calculations	
34	Response to OPR Document	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. CONSTRUCTION DOCUMENT DESIGN REVIEW CHECKLIST**

This table is only completed if a design review document is not attached to the permit application to demonstrate compliance with §120.8(d) and §120.8(e). For buildings with > 10,000 ft² conditioned floor area, the design review will ensure the construction documents meet the Owner's Project Requirements (Table G.) and the Basis of Design Documents (Table H.). For buildings with < 10,000ft² conditioned floor area, the design review will ensure the construction documents meet the goals documented in Table F. during the Design Review Kickoff.

01	Attaching Completed Design Review Documentation?	YES	NO
		<input type="radio"/>	<input checked="" type="radio"/>

Design Review Checklist

02	Envelope Design	
03	HVAC System Design	
04	HVAC Controls Design	
05	Indoor Lighting System Design	
06	Indoor Lighting Controls Design	
07	Outdoor Lighting System and Controls Design	
08	Water Heating System Design	
09	Other Systems and Features	

J. COMMISSIONING PLAN

This table is only completed if a Commissioning Plan document is not attached to the permit application to demonstrate compliance with §120.8(f). Per §120.8(f), the Commissioning Plan is to be started during the design phase and a completed draft must be submitted with permit application.

01	Attaching Completed Commissioning Plan?	YES	NO
		<input type="radio"/>	<input checked="" type="radio"/>
02	Commissioning Plan Authors and Roles		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Commissioning Provider Information**

03	Company Name		05	Contact Email	
04	Contact Person		06	Contact Phone	

Commissioning Process Overview

07	Owner Goals	
08	Roles and Responsibilities	
09	Schedule	

Commissioning Activities During Construction

10	Construction Observation	
11	Issues Logs	
12	Installation Verification	
13	Functional Performance Testing	
14	Documentation and Training	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****K. FUNCTIONAL PERFORMANCE TESTING**

The table below is completed to demonstrate compliance with functional performance testing requirements per §120.8(g).

By checking this box, the responsible party ¹ certifies that functional performance testing will be executed to demonstrate the correct installation and operation of each component, system, and system-to-system interface in accordance with the acceptance test requirements in §120.5, §130.4 and §140.9. The functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.			01
			<input type="checkbox"/>
The following acceptance tests have been identified as applicable to the project scope:²			
02	03	04	05
System/ Equipment to be Tested	Brief description of functional performance test	Applicable Reference Appendix	Certified Acceptance Test Technician Required?
The acceptance tests required by Title 24, Part 6 outline the minimum functional performance testing scope to be conducted for compliance. However, the commissioning scope may include additional functional performance tests on systems or equipment not having acceptance tests required by Title 24, Part 6.			
The following additional functional performance tests have been requested by the owner or owner's representative:			
06	07		
System/ Equipment to be Tested	Brief description of functional performance test		

¹ FOOTNOTE: See the signature block on the last page of this compliance document for the responsible party.

² Required acceptance tests can be determined by reviewing the "Certificates of Acceptance" table on each Certificate of Compliance submitted for permit application.

L. DOCUMENTATION AND TRAINING

The table below is completed to demonstrate compliance with documentation and training requirements per §120.8(h).

By checking this box, the responsible party ¹ certifies that a systems manual will be provided to the building owner or representative per §120.8(h)1.	01
	<input type="checkbox"/>
By checking this box, the responsible party ¹ certifies that a training of the appropriate maintenance staff for each equipment and system will be completed and documented in the commissioning report per §120.8(h)2. Training requirements should be included in the contract document in the specifications.	02
	<input type="checkbox"/>

¹ FOOTNOTE: See the signature block on the last page of this compliance document for the responsible party.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****M. COMMISSIONING REPORT**

The table below is completed to demonstrate compliance with commissioning report requirements per §120.8(i).

By checking this box, the responsible party ¹ certifies that a complete report of commissioning process' activities undertaken through the design, construction, and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or owner's representative.	01
	<input type="checkbox"/>

¹ FOOTNOTE: See the signature block on the last page of this compliance document for the responsible party.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

There are no Certificates of Installation applicable to commissioning requirements.

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Although there are no "CXR" Certificates of Acceptance required to document commissioning requirements, Certificates of Acceptance may be used to supplement functional performance testing required by §120.8(g).

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

Registration Number:

Registration Date/Time:

Registration Provider:

CA Building Energy Efficiency Standards - 2025 Low-Rise Multifamily Compliance

January 1, 2026

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-CXR-01-E
Nonresidential Building Commissioning	(Page 1 of 7)

A. General Information

1. Enter the City the project is located in.
2. Occupancy Type: Select from dropdown.
3. Project Type: Select from dropdown.
4. Enter the Building Size in square feet.
5. Nonresidential Conditioned Floor Area: Select from dropdown.
6. HVAC System Type: Select from dropdown.
7. Climate Zone: Select from dropdown.

B. Project Scope

1. The fields on this table indicate which commissioning related requirements apply per §120.8 and are based on project information provided in Table A. This table is uneditable by the user.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through M.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. Design Review Kickoff Meeting

1. Enter the Date of Design Review Kickoff Meeting.
2. Select and enter the applicable Meeting Attendees.
3. Select Yes or No if the Design Reviewer meets the listed qualifications.
4. Enter the name of the Design Reviewer
5. Enter the Start and Completion Date of the Schematic Design.
6. Enter the Start and Completion Date of the Design Development.
7. Enter the Start and Completion Date of the Construction Documents.
8. Enter the Start and Completion Date of the Construction.
9. Enter the Start and Completion Date of the Building Turnover.
10. Describe the broad goals relative to operational costs.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-CXR-01-E
Nonresidential Building Commissioning	(Page 2 of 7)

11. Describe the desired building lifespan.
12. Describe the broad goals relative to the lifecycle of building systems equipment.
13. Describe the project energy efficiency goals, such as Energy Use Intensity (EUI) in kBtu/ft².
14. Describe any efficiency goals related to the building's roof, walls, windows or floors.
15. Describe heating and cooling requirements and any special considerations.
16. Describe any efficiency goals related to the building's indoor lighting systems.
17. Describe any efficiency goals related to the building's outdoor lighting systems.
18. Describe any efficiency goals related to the building's outdoor lighting systems.
19. Describe the desired equipment type, quality and reliability requirements, preferred manufacturers, and energy efficiency targets.
20. Describe the desired level of training and orientation for building occupants and operations and maintenance staff to understand the use building systems.

G. Owner's Project Requirements (OPR)

1. Select Yes or No if the Completed Owner's Project Requirements Document is attached.
2. Enter the Owner's Project Requirements Document Authors and Roles.
3. Enter the energy use intensity target to meet owner's goals in kBtu/ft²
4. Enter the energy cost target to meet owner's goals in \$/ ft²/yr
5. Discuss whether kW demand control is desired on the project.
6. Discuss the implications of siting constraints on energy use.
7. Discuss the implications of landscaping design decisions on energy use.
8. Describe any additional discussions or goals around general energy efficiency.
9. Describe the implications of fenestration decisions on energy use and Part 6 compliance.
10. Describe the implications of wall/floor details on energy use and Part 6 compliance.
11. Describe the implications of roof details on energy use and Part 6 compliance.
12. Describe any additional discussions or goals around envelope energy efficiency.
13. Describe any HVAC system constraints or preferences.
14. Discuss and document desired thermostat setpoints.
15. Discuss and document design considerations.
16. Discuss and document design considerations.
17. Discuss and document design considerations.
18. Discuss and document design considerations.
19. Discuss and document load calculation considerations.
20. Discuss and document spaces with special environmental control requirements.

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Nonresidential Building Commissioning	(Page 3 of 7)

21. Discuss and document design considerations for ventilation.
22. Discuss and document design considerations for DCV.
23. Describe the owner's goals related to having a BAS.
24. Describe how occupants should be interacting with controls to meet owner's requirements.
25. Describe how the control sequences meet the ASHRAE Guideline 36 requirements.
26. Describe how the control sequences meet the ASHRAE Guideline 36 requirements.
27. Describe controls design decisions to meet owner's requirements.
28. Describe IAQ design decisions to meet owner's requirements.
29. Discuss and document acoustic requirements applicable to the spaces in the project.
30. Describe operation and maintenance goals & related design decisions.
31. Describe any additional discussions or goals around HVAC energy efficiency.
32. Describe design considerations for the lighting system to meet owner goals.
33. Describe owner preferences related to lighting system components.
34. Describe any design considerations related to task lighting.
35. Describe design considerations for the lighting control system.
36. Discuss and document the desired interaction with overriding indoor lighting control systems.
37. Discuss if occupancy-based controls need to be coordinated with DCV to meet owner's goals.
38. Discuss and document the occupant's desired interaction with indoor lighting control systems.
39. Describe any additional discussions or goals around indoor lighting system energy efficiency.
40. Describe design considerations for the outdoor lighting system to meet owner goals.
41. Describe owner preferences related to outdoor lighting system components.
42. Describe design considerations for the lighting control system.
43. Discuss and document the occupant's desired interaction with outdoor lighting control systems.
44. Describe any additional discussions or goals around outdoor lighting system energy efficiency.
45. Describe owner goals and preferences related to the water heating system.
46. Describe owner preferences related to water heating system components.
47. Describe owner preferences related to water heating system controls.
48. Describe owner requirements related to water heating system efficiency.
49. Describe any additional discussions or goals around water heating system energy efficiency.
50. Describe if there are any owner's goals related to the building lifespan.
51. Describe any owner's goals related to equipment lifespan.
52. Describe any owner's goals related to operation and training for building occupants.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-CXR-01-E
Nonresidential Building Commissioning	(Page 4 of 7)

53. Describe any owner's goals related to operation and training for building occupants.

H. Basis of Design (BOD)

1. Select Yes or No if the Completed Basis of Design Document is attached.
2. Enter the Basis of Design Document Authors and Roles.
3. Select the Title 24, Part 6 Compliance Approach.
4. Insert a description of which scopes are using prescriptive vs. which are using performance.
5. Insert a description of how the design's energy use intensity (EUI) will be calculated.
6. Insert a description of how the design's energy cost per square foot will be calculated.
7. Insert a description of the target design window to wall ratio.
8. Insert a description of the wall assemblies and energy efficiency features/strategies.
9. Insert a description of the target design window performance including U Values, Glazing, and Solar Heat Gain Coefficient for all window types.
10. Provide reasons why the envelope design is the best choice to meet Owner's Project Requirements outlined in the OPR Document (See Table G.)
11. Insert general HVAC system description
12. Insert system type(s), location, control type, efficiency features, outdoor air ventilation strategy, indoor air quality features, noise reduction features, environmental benefits, other special features
13. Insert system type(s), location, control type, efficiency features, outdoor air ventilation strategy, indoor air quality features, noise reduction features, environmental benefits, other special features
14. Insert system type(s), location, control type, efficiency features, ventilation strategies, indoor air quality features, noise reduction features, environmental benefits, other special features
15. Provide operating schedules, set points, etc. if known at time of design.
16. Provide narrative of how all spaces and zones meet the outside air ventilation requirements in the OPR Document
17. Describe the load calculation methodology used to meet requirements in the OPR document
18. Enter the Indoor Design Conditions.
19. Provide reasons why the selected system is the best choice to meet Owner's Project Requirements outlined in the OPR Document (See Table G.)
20. Generally describe the indoor lighting system which will be commissioned
21. Insert specific fixture types
22. Insert specific lamp and ballast types
23. Describe control types and areas to be controlled
24. Provide operating schedules, set points, etc. if known at time of design.

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25. Provide reasons why the selected system is the best choice to meet Owner's Project Requirements outlined in the OPR Document (See Table G.)
26. Generally describe the outdoor lighting system which will be commissioned
27. Insert specific fixture types
28. Insert specific lamp and ballast types
29. Describe control types and areas to be controlled
30. Provide operating schedules, set points, etc. if known at time of design.
31. Provide reasons why the selected system is the best choice to meet Owner's Project Requirements outlined in the OPR Document (See Table G.)
32. Generally describe the water heating system which will be commissioned
33. Describe sizing calculation method, assumptions, and results
34. Provide reasons why the selected system is the best choice to meet Owner's Project Requirements outlined in the OPR Document (See Table G.)

I. Construction Document Design Review Checklist

1. Select Yes or No if the Completed Design Review Document is attached.
2. Describe how the envelope design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
3. Describe how the HVAC system design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
4. Describe how the HVAC controls design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
5. Describe how the indoor lighting system design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
6. Describe how the indoor lighting controls design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
7. Describe how the outdoor lighting controls design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
8. Describe how the water heating system design reflected in the contract documents meets each owner requirement documented in the OPR/ BOD or Table F.
9. Describe how any other systems or features reflected in the contract documents meets owner requirements documented in the OPR/ BOD or Table F.

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J. Commissioning Plan

1. Select Yes or No if the Completed Commissioning Plan is attached.
2. Enter the Commissioning Plan Authors and Roles.
3. Enter the Company Name.
4. Enter the Contact Person.
5. Enter the Contact Email.
6. Enter the Contact Phone.
7. Describe the goals for the commissioning process including but not limited to meeting code requirements, meeting OPR and BOD requirements.
8. Describe the roles and responsibilities of the commissioning provider, owner/owner's representative, design team, construction manager, certified Acceptance Test Technician, mechanical, electrical, and controls contractors, testing and balancing contractor, equipment suppliers, and building inspector.
9. Describe how the commissioning and acceptance testing process will fit into the construction schedule.
10. Describe when jobsite observations will be conducted and the intent of these observations.
11. Describe how issues logs will be used and the project team members these will be submitted to for recertification.
12. Describe the installation verification processes and responsible parties.
13. Describe how the Commissioning Provider, Acceptance Test Technician and Subcontractor will interact during tests listed in Table K. Functional Performance Testing.
14. Describe the review of the operation manuals and how the commissioning provider will facilitate the training of owner and applicable maintenance staff on the building systems.

K. Functional Performance Testing

1. Check to confirm that the responsible party certifies that functional performance testing will be executed to demonstrate the correct installation and operation of each component, system, and system-to-system interface in accordance with the acceptance test requirements in §120.5, §130.4 and §140.9.
2. Enter the System/Equipment to be Tested.
3. Enter a description of the functional performance test.
4. Applicable Reference Appendix: Select from dropdown.
5. Certified Acceptance Test Technician: Select Yes or No.
6. Enter the System/Equipment to be Tested.
7. Enter a description of the functional performance test.

L. Documentation and Training

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-CXR-01-E
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1. Check to confirm that the responsible party certifies that a systems manual will be provided to the building owner or representative per §120.8(h)1.
2. Check to confirm that the responsible party certifies that a training of the appropriate maintenance staff for each equipment and system will be completed and documented in the commissioning report per §120.8(h)2.

M. Commissioning Report

1. Check to confirm that the responsible party certifies that a complete report of commissioning process' activities undertaken through the design, construction and reporting recommendations for post-construction phases of the building project shall be completed and provided to the owner or owner's representative.

N. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

O. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential and hotel/motel occupancies in low-rise multifamily mixed-use buildings and §160.6 and §160.9 for electrical systems in newly constructed low-rise multifamily occupancies. Additions and alterations to electrical service systems in nonresidential & hotel/motel occupancies in low-rise multifamily mixed-use buildings will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2P for alterations. For low-rise multifamily addition or alterations compliance will be documented per §180.1(a) or §180.2(b)4Bvii.

The document, along with the electric ready requirements of Section 160.9, applies to the entire building.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. GENERAL INFORMATION

01	Project Location (city)		02	Climate Zone	
			03	Occupancy Types Within Project:	
<input type="checkbox"/>	Office	<input type="checkbox"/>	Retail	<input type="checkbox"/>	Warehouse
<input type="checkbox"/>	Low-Rise Residential Multifamily/ MF Mixed-use < 4 stories (new construction)	<input type="checkbox"/>	Low-Rise Residential Multifamily/ MF Mixed-use < 4 stories (Addition or Alteration)	<input type="checkbox"/>	Healthcare Facilities
		<input type="checkbox"/>	Relocatable	<input type="checkbox"/>	All Others
<input type="checkbox"/>	Auditorium	<input type="checkbox"/>	Commercial/ Industrial	<input type="checkbox"/>	Grocery Store
<input type="checkbox"/>	Classroom	<input type="checkbox"/>	Library	<input type="checkbox"/>	Gymnasium
		<input type="checkbox"/>	Hotel/ Motel	<input type="checkbox"/>	Parking Garage
		<input type="checkbox"/>	School	<input type="checkbox"/>	Support Areas
		<input type="checkbox"/>	Theater	<input type="checkbox"/>	Sports Arena
		<input type="checkbox"/>	Data Center	<input type="checkbox"/>	Convention Center
		<input type="checkbox"/>	Financial Institution	<input type="checkbox"/>	Medical Clinic
		<input type="checkbox"/>	Religious Facility	<input type="checkbox"/>	Restaurant/ Commercial Kitchen

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table includes electrical service systems that are within the scope of the permit application.

01	02	03	04	05	06	07
Electrical Service Designation/Description	Scope of Work ¹	Rating ² (kVA)	Utility Provided Metering System Exception to §130.5(a)/§160.6(a) ³	System subject to CA Elec Code Article 517 Exception to §130.5(a)&(b)	Demand Response Controls	Provides power to dwelling units/common living areas only in multifamily occupancy
					Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standard based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2/§160.3, §130.1/§160.5 and §130.3/§160.5 and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents-will indicate when demand response controls are required.	
			<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>

¹FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop 130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.

² If common use areas in a multifamily occupancy are submetered, rating is for submeter size serving common use areas.

³ Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Results in this table are automatically calculated from data input and calculations in Tables F through J.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

01		02		03		04		05	06
Service Electrical Metering §130.5(a)/ §160.6(a)	AND	Separation for Monitoring §130.5(b)/ §160.6(b)	AND	Voltage Drop §130.5(c)/ §160.6(c)	AND	Controlled Receptacles §130.5(d)/ §160.6(d)	AND	Electric Ready §160.9	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)	
Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	COMPLIES, DOES NOT COMPLY, Or COMPLIES with Exceptional Conditions

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

--

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. SERVICE ELECTRICAL METERING**

This table includes new or replacement electrical service systems OR equipment to demonstrate compliance with §130.5(a)/§160.6(a). For multifamily occupancies, submetered systems that provide power to common use areas must meet the following metering requirements.

Submetered systems providing power to dwelling units do not.

01	02	03				04	05	
Electrical Service Designation/ Description	Rating ¹ (kVA)	Required Metering Capabilities per Table 130.5-A				Location of Requirements in Construction Documents	Field Inspector	
		Instantaneous Demand (kW)	Historical Peak Demand (kW)	Tracking kWh for user-defined period	kWh per rate period		Pass	Fail
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

¹FOOTNOTES: *If common use areas in a multifamily occupancy are submetered, rating is for submeter size serving common use areas.*

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b)/§160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

Electrical Service Designation/ Description:					
01	02	03	04	05	
Load Type per Table 130.5-B ¹	Minimum Required Separation of Load per Table 130.5-B	Compliance Method ²	Location of Requirements in Construction Documents	Field Inspector	
				Pass	Fail
				<input type="checkbox"/>	<input type="checkbox"/>

^{*}NOTES If "Other*" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.

FOOTNOTES: *For each separate load type, up to 10% of the connected load may be of any type.*

² Method 1: *Switchboards/ motor control centers/ panelboard loads disaggregated for each load type*

Method 2: *Switchboards/ motor control centers/ panelboard supply other distribution equipment with loads disaggregated for each load type*

Method 3: *Branch circuits serve load types individually & provisions for adding future branch circuit monitoring*

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

Method 4: Complete metering system measures and reports loads by type

See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c)/§160.6(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii/§180.2(b) 4Bviic.

01	02		03	04	05	
Electrical Service Designation/Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method		Location of Voltage Drop Calculations ¹	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector	
					Pass	Fail
	<input type="checkbox"/> Voltage drop ≤ 5%	<input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))*			<input type="checkbox"/>	<input type="checkbox"/>

NOTES If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.

¹ FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES**

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(d)/§160.6(d). Both controlled and uncontrolled receptacles must be provided in office areas, lobbies, conference rooms, kitchen areas in office spaces, copy rooms and hotel/motel guest rooms.

01	02	03	04	05	06	07	
Room Name or Description	Location/ Type of Controlled Receptacles ^{1, 2}	Shut-Off Controls	Demand Responsive Controls	Permanent Marking Will be Used	Location of Requirements in Construction Documents	Field Inspector	
						Pass	Fail
				<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

**NOTES: If "Other*" is selected under Shut-Off Controls above, please indicate how compliance has been achieved in the space provided below.*

¹ FOOTNOTES: Receptacles dedicated to refrigerators and water dispensers in kitchens, located a minimum of 6ft above the floor specifically for clocks, network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms, circuits rated more than 20 Amps, or connected to a UPS that are intended to be in continuous use and are marked to differentiate them from other receptacles or circuits are excepted from the requirements.

² Plug-in strips and other plug-in devices shall not be used to comply with the requirements of section 130.5(d)

J. ELECTRIC READY BUILDINGS

This table includes electrical system requirements that must be met when using gas or propane heating, cooking or clothes drying in multifamily occupancies to demonstrate compliance with §160.9.

01	Systems serving multifamily occupancy that use gas or propane include:	<input type="checkbox"/> Furnaces serving individual dwelling units	<input type="checkbox"/> Cooktops serving individual dwelling units	<input type="checkbox"/> Clothes dryers serving individual dwelling units	<input type="checkbox"/> Clothes dryers in common areas	<input type="checkbox"/> Gas/propane water heater serving individual dwelling units	<input type="checkbox"/> Gas/propane water heater serving multiple dwelling units	<input type="checkbox"/> None of these
----	--	---	---	---	---	---	---	--

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Gas/ Propane Furnaces Serving Individual Dwelling Units (Heat Pump Space Heater Ready)**

	Yes	Requirement
02	<input type="checkbox"/>	A dedicated 240 volt branch circuit shall be installed within 3 feet from the furnace and accessible to the furnace with no obstructions. The branch circuit shall be rated at 30 amps minimum. The blank cover shall be identified as “240V ready”. All electrical components shall be installed in accordance with the California Electrical Code.
03	<input type="checkbox"/>	The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future heat pump space heater installation. The reserved space shall be permanently marked as “For Future 240V use”.

Gas/ Propane Cooktops Serving Individual Dwelling Units

	Yes	Requirement
04	<input type="checkbox"/>	A dedicated 240 volt branch circuit shall be installed within 3 feet from the cooktop and accessible to the cooktop with no obstructions. The branch circuit shall be rated at 50 amps minimum. The blank cover shall be identified as “240V ready”. All electrical components shall be installed in accordance with the California Electrical Code.
05	<input type="checkbox"/>	The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric cooktop installation. The reserved space shall be permanently marked as “For Future 240V use”.

Gas/ Propane Clothes Dryers Serving Individual Dwelling Units

	Yes	Requirement
06	<input type="checkbox"/>	A dedicated 240 volt branch circuit shall be installed within 3 feet from the clothes dryer and accessible to the clothes dryer with no obstructions. The branch circuit shall be rated at 30 amps minimum. The blank cover shall be identified as “240V ready”. All electrical components shall be installed in accordance with the California Electrical Code.
07	<input type="checkbox"/>	The main electrical service panel shall have a reserved space to allow for the installation of a double pole circuit breaker for a future electric clothes dryer installation. The reserved space shall be permanently marked as “For Future 240V use”.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Gas/ Propane Clothes Dryers In Common Areas**

	Yes	Requirement
08	<input type="checkbox"/>	Conductors or raceway shall be installed with termination points at the main electrical panel, via subpanels panels if applicable, to a location no more than 3 feet from each gas outlet or a designated location of future electric replacement equipment. Both ends of the conductors or raceway shall be labelled "Future 240V Use." Capacity shall be one of the following: <ul style="list-style-type: none">- 24 amps at 208/240 volts per clothes dryer;- 2.6 kVA for each 10,000 Btu per hour of rated gas input or gas pipe capacity; or- The electrical power required to provide equivalent functionality of the gas-powered equipment as calculated by the responsible person.

Gas/Propane Water Heaters Serving Individual Dwelling Units

	Yes	Requirement
09	<input type="checkbox"/>	A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor branch circuit rated to 30 amps minimum, within 3 feet from the water heater and accessible to the water heater with no obstructions. In addition, all the following: <ul style="list-style-type: none">- Both ends of the unused conductor shall be labeled with the word "spare" and be electrically isolated; and- A reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit in A above and labeled with the words "Future 240V Use"
	<input type="checkbox"/>	A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance
	<input type="checkbox"/>	The construction drawings shall designate a space at least 39 inches by 39 inches and 96 inches tall for the future location of heat pump water heater
	<input type="checkbox"/>	A ventilation method meeting one of the following: <ul style="list-style-type: none">- The designated space for the future heat pump water heater shall have a minimum volume of 700 cubic feet; or- The designated space for the future heat pump water heater shall vent to a communicating space in the same pressure boundary via permanent openings with a minimum total NFA of 250 square inches., so that the total combined volume connected via permanent openings is 700 cubic feet or larger. The permanent openings shall be:<ul style="list-style-type: none">- Fully louvered doors with fixed louvers; or- Two permanent fixed openings located within 12 inches from the enclosure top and bottom;- The designated space for the future heat pump water heater shall include two 8 inches capped ducts, venting to the building exterior:<ul style="list-style-type: none">- All ducts, connections, and building penetrations shall be sealed.- Exhaust air ducts and all ducts which cross pressure boundaries shall be insulated to a minimum insulation level of R-6.- Airflow from termination points shall be diverted away from each other.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Gas/Propane Water Heaters Serving Multiple Dwelling Units**

	Yes	Requirement
10	<input type="checkbox"/>	Space shall be reserved for a Heat Pump. The minimum space reserved shall include space for service clearances and air flow clearances and shall meet one of the following: <ul style="list-style-type: none"> - The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project; or - The space reserved shall meet the requirements specified in Joint Appendix JA15.2.1.
	<input type="checkbox"/>	Space shall be reserved for Tanks. The minimum space reserved shall include space for service clearances and shall meet one of the following: <ul style="list-style-type: none"> - The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project; or - The space reserved shall meet the requirements specified in Joint Appendix JA15.2.2.
	<input type="checkbox"/>	Ventilation shall be provided by meeting one of the following: <ul style="list-style-type: none"> - Physical space reserved for the heat pump shall be located outside; or - A pathway shall be reserved for future routing of supply and exhaust air via ductwork from the reserved heat pump location to a suitable outdoor location. Penetrations through the building envelope for louvers and ducts shall be planned and identified for future use. The reserved pathway and penetrations through the building envelope shall be sized to meet one of the following: <ul style="list-style-type: none"> - The reserved pathway and penetrations shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - The reserved pathway and penetrations shall be sized to meet the requirements specified in Joint Appendix JA15.2.3.
	<input type="checkbox"/>	Condensate drainage piping. An approved receptacle that is sized per the California Plumbing Code for condensate drainage shall be installed within 3 feet of the reserved heat pump location, or piping shall be installed within 3 feet of the reserved heat pump location to an approved discharge location that is sized in accordance with the California Plumbing Code, and meet one of the following: <ul style="list-style-type: none"> - Condensate drainage shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - Condensate drainage piping shall be sized to meet the requirements specified in Joint Appendix JA15.2.4.
	<input type="checkbox"/>	Physical space shall be reserved on the bus system of the main switchboard or on the bus system of a distribution board to serve the future heat pump water heater system including the heat pump and temperature maintenance tanks. In addition, the physical space reserved shall be capable of providing adequate power to the future heat pump water heater in accordance with the following: <ul style="list-style-type: none"> - Heat Pump. Meet one of the following: <ul style="list-style-type: none"> - The electrical power required to power a heat pump water heater system heat pump that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - The electrical power required that meets the requirements specified for the heat pump in Joint Appendix JA15.2.5. - Temperature Maintenance Tank. Meet one of the following: <ul style="list-style-type: none"> - The electrical power required to power a heat pump water heater system temperature maintenance tank that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - The electrical power required that meets the requirements specified for the temperature maintenance tank in Joint Appendix JA15.2.5.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-ELC-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ELC-01-E
Electrical Power Distribution	(Page 1 of 3)

A. General Information

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Select the applicable Occupancy Types within the Project.

B. Project Scope

1. Enter the Electrical Service Designation/Description.
2. Scope of Work: Select from dropdown.
3. Enter the kVA Rating.
4. Check if the Utility Provided Metering System meets Exception to §130.5(a)/§160.6(a)3.
5. Check if the System is subject to CA Elec Code Article 517 Exception to §130.5(a)&(b).
6. Demand Response Controls static text.
7. Check if power is provided to dwelling units/common living areas only in a multifamily occupancy.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through J.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. Service Electrical Metering

1. This field is filled out automatically.
2. This field is filled out automatically
3. Instantaneous Demand checkbox is always checked
Historical Peak Demand checkbox is checked automatically.
Tracking kWh for user-defined period checkbox is always checked.
kWh per rate period is checked automatically.
4. Enter the Location of Requirements in Construction Documents.
5. This is a Pass or Fail checkbox for the field inspector.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ELC-01-E
Electrical Power Distribution	(Page 2 of 3)

G. Separation of Electrical Circuits for Energy Monitoring

1. Load Type per Table 130.5-B: Select from dropdown.
2. This field is filled out automatically.
3. Compliance Method: Select from dropdown.
4. Enter the Location of Requirements in the Construction Documents
5. This is a Pass or Fail checkbox for the field inspector.

H. Voltage Drop

1. This field is filled out automatically.
2. Select the Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method.
3. Location of Voltage Drop Calculation: Select from dropdown.
4. Enter the Sheet Number for Voltage Drop Calculation in Construction Documents.
5. This is a Pass or Fail checkbox for the field inspector.

I. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles

1. Enter the Room Name or Description.
2. Location/Type of Controlled Receptacles: Select from dropdown.
3. Shut-Off Controls: Select from dropdown.
4. Demand Responsive Controls: Select from dropdown.
5. Check if a Permanent Durable Marking Will be Used
6. Enter the Location of Requirements in the Construction Documents
7. This is a Pass or Fail checkbox for the field inspector.

J. Electric Ready Buildings

1. Select the applicable systems serving multifamily occupancy that use gas or propane.
- 2-8. Check Yes to verify your project meets the requirements.

K. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ELC-01-E
Electrical Power Distribution	(Page 3 of 3)

L. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

FOR INFORMATION AND DATA COLLECTION
ONLY. NOT VALID UNTIL REGISTERED
WITH AN ECC PROVIDER.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with mandatory requirements in §110.8(g) and §120.7(b)/§160.1 for newly constructed multifamily and mixed-use buildings, and §141.0(b)1/§180.2 for alterations, related to roof, wall and floor assemblies. It is also used to demonstrate compliance with prescriptive requirements in §140.3/§170.2 for newly constructed buildings, and §141.0/§180.1/§180.2 for additions and alterations, related to roof, wall, floor, door, fenestration, and daylighting requirements.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)		05	# of Stories (Habitable Above Grade)	
02	Zip code		06	Total Conditioned Floor Area (ft ²)	
03	Climate Zone		07	Total Unconditioned Floor Area (ft ²)	
04	Occupancy Types Within Project (select all that apply): If one occupancy constitutes >= 80% of the conditioned floor area, the entire building envelope may be designed to comply with the provisions of that occupancy per §100.0(f).			08	<input type="checkbox"/> Project includes unconditioned enclosed space(s) > 5,000ft ² under a roof with a ceiling height of at least 15ft. ¹
<input type="checkbox"/> Office	<input type="checkbox"/> Retail	<input type="checkbox"/> Warehouse	<input type="checkbox"/> Grocery		
<input type="checkbox"/> Hotel/ Motel	<input type="checkbox"/> School or Classroom	<input type="checkbox"/> Healthcare facility	<input type="checkbox"/> Financial Institution		
<input type="checkbox"/> Low-Rise Residential	<input type="checkbox"/> Relocatable Public School	<input type="checkbox"/> All Other Occupancy Types	<input type="checkbox"/> Unleased Tenant Space		
<input type="checkbox"/> Auditorium	<input type="checkbox"/> Library	<input type="checkbox"/> Restaurant	<input type="checkbox"/> Parking Garage		
<input type="checkbox"/> Convention Center	<input type="checkbox"/> Medical Office Bldg/ Clinic	<input type="checkbox"/> Theater	<input type="checkbox"/> Religious Worship		
<input type="checkbox"/> Commercial Industrial	<input type="checkbox"/> Data Center	<input type="checkbox"/> Gymnasium	<input type="checkbox"/> Support Area		

¹ FOOTNOTE: Enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15ft in climate zones 2 through 15 are required to meet the minimum daylighting requirements defined in §140.3(c)/§170.2(b). Compliance with §140.3(c)/§170.2(b) is documented in Table L. This is the only prescriptive requirement which applies to unconditioned spaces.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table specifies project envelope components within the permit application demonstrating compliance using the prescriptive paths outlined in §140.3/§170.2, and §141.0(a)1/§180.1 and §141.0(b)1 and 2/§180.2 for additions and alterations.

My project consists of (check all that apply):		Component Types		
01		02		
<input type="checkbox"/>	New Construction or Newly Conditioned Space	<input type="checkbox"/> Roof	<input type="checkbox"/> Floors	<input type="checkbox"/> Exterior Opaque Doors
<input type="checkbox"/>	One or more enclosed spaces > 5,000 ft ² directly under roof with ceiling height > 15ft	<input type="checkbox"/> Walls	<input type="checkbox"/> Vestibules	<input type="checkbox"/> Fenestration/ Glazed Doors ¹
<input type="checkbox"/>	Addition of conditioned space	<input type="checkbox"/> Roof	<input type="checkbox"/> Walls	<input type="checkbox"/> Exterior Opaque Doors
<input type="checkbox"/>	Addition is <= 700 ft ²		<input type="checkbox"/> Floors	<input type="checkbox"/> Fenestration/ Glazed Doors ¹
<input type="checkbox"/>	Addition is > 700 ft ²			
<input type="checkbox"/>	One or more enclosed spaces > 5,000 ft ² directly under roof with ceiling height > 15ft			
<input type="checkbox"/>	Alteration of conditioned space	<input type="checkbox"/> Roof Assembly	<input type="checkbox"/> Walls	Exterior Opaque Doors NA for Alts.
<input type="checkbox"/>	One or more enclosed spaces > 5,000 ft ² directly under roof with ceiling height > 15ft and lighting system installed for the first time	<input type="checkbox"/> Roofing Material ²	<input type="checkbox"/> Floors	<input type="checkbox"/> Fenestration

¹ FOOTNOTE: Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on Table K with fenestration.

² Roof recovers and replacements must also check the "Roof Assembly" box and document compliance with insulation requirements in Table F. Roof recoats may document compliance with roof material only in Table G.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Results in this table are automatically calculated from data input and calculations in Tables F through L. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

Opaque Envelope Components					Fenestration	Daylighting Spaces > 5,000ft ²	Compliance Results
Roof Assembly	Roofing Materials	Walls	Floors	Doors			
01	02	03	04	05	06	07	08
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	COMPLIES or COMPLIES with Exceptional Conditions or DOES NOT COMPLY
YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	YES/NO	

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. ROOF ASSEMBLY SCHEDULE**

This table demonstrates compliance with prescriptive roof assembly requirements in §140.3(a)1B/§170.2(a)1B for new construction, §141.0(a)/§180.1 for additions and §141.0(b)2Biii/§180.2 for alterations.

01	Indicate roof types included in the project:	<input type="checkbox"/> Framed	<input type="checkbox"/> Framed-Multifamily	<input type="checkbox"/> SIPs	<input type="checkbox"/> Span Deck & Concrete	<input type="checkbox"/> Metal Panels	<input type="checkbox"/> Metal Building		
Framed Roof Assemblies									
01	<input type="checkbox"/>	Include Framed Roof Assemblies in Area-Weighted Average U-factor Calculation ¹							
02	03		04		05		06		
Tag/Plan Detail ID	Name/Description		Status		Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only)		Occupancy Type		
07	08	09	10	11	12	13	14	15	16
Tag/Plan Detail ID	How Design U-factor was determined	Roof Type & Frame Material	Frame Spacing & Depth	Cavity Insulation per Design ²	Continuous Insulation per Design ²	Thermal Performance Unit	Required Thermal Performance ³	U-factor per Design	Net Area ⁴ (ft ²)
								per JA4	
								per Software/ Other	
17	Location in Construction Documents showing Air Barrier								

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck.

³ If "R-value" is shown in cell 13 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C.

⁴ Roof area minus any fenestration/ skylight area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Structural Insulated Panels (SIPs) Roof/Ceiling Assemblies**

01	<input type="checkbox"/>	Include SIPs Roof assemblies in Area-Weighted Average U-factor Calculation ¹							
02		03		04		05		06	
Tag/Plan Detail ID		Name/Description		Status		Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only)		Occupancy Type	
07	08	09	10	11	12	13	14	15	16
Tag/Plan Detail ID	How Design U-factor was determined	Wood Framing Connection Type (Spline)	Panel Thickness (in.)	Core Insulation per Design ²	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ³	U-factor Per Design	Net Area ⁴ (ft ²)
								per JA4	
								per Software/ Other	
17	Location in Construction Documents showing Air Barrier								

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck.

³ If "R-value" is shown in cell 13 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C.

⁴ Roof area minus any fenestration/ skylight area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Span Deck & Concrete Roof Assemblies**

01	<input type="checkbox"/>	Include Span Deck & Concrete Roof assemblies in Area-Weighted Average U-factor Calculation ¹															
02		03		04		05		06									
Tag/Plan Detail ID		Name/Description		Status		Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only)		Occupancy Type									
07		08		09		10		11		12		13		14		15	
Tag/Plan Detail ID		How Design U-factor was determined		Fireproofing		Concrete Topping Thickness (in)		Continuous Insulation per Design ²		Thermal Performance Unit		Required Thermal Performance ³		U-factor per Design		Net Area ⁴ (ft ²)	
														per JA4			
														per Software/Other			
16		Location in Construction Documents showing Air Barrier															

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck.

³ If "R-value" is shown in cell 12 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C.

⁴ Roof area minus any fenestration/skylight area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Metal Panel Assemblies**

01	<input type="checkbox"/>	Include Metal Panel Roof assemblies in Area-Weighted Average U-factor Calculation ¹				
02	03	04	05		06	
Tag/Plan Detail ID	Name/Description	Status	Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only)		Occupancy Type	
07	08	09	10	11	12	
Tag/Plan Detail ID	How Design U-factor was determined	Panel Thickness (in)	Thermal Performance Unit	Required Thermal Performance	U-factor per Design	
					per JA4	
					per Software/ Other	
14	Location in Construction Documents showing Air Barrier					

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² Roof area minus any fenestration/ skylight area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Metal Building Roof Assemblies**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Metal Building Roof ¹						
02	03	04		05			06	
Tag/Plan Detail ID	Name/Description	Status		Exception to Roof Insulation Requirements in §141.0(b)2Biii (Alts. Only)			Occupancy Type	
07	08	09	10	11	12	13	14	15
Tag/Plan Detail ID	How Design U-factor was determined	Insulation System	Cavity Insulation per Design ²	Continuous Insulation per Design ²	Thermal Performance Unit	Required Thermal Performance ³	U-factor per Design	Net Area ⁴ (ft ²)
							per JA4	
							per Software/Other	
16	Location in Construction Documents showing Air Barrier							

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² For alterations using U-factor as the Thermal Performance Unit, at least R-10 insulation must be above deck.

³ If "R-value" is shown in cell 12 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C.

⁴ Roof area minus any fenestration/skylight area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Multifamily Framed Roof Assemblies**

New construction multifamily occupancies with attic roofs may choose between U-factor or R-value to demonstrate compliance with Table 170.2-A or Section 180.2(b)1 for alterations. New construction non-attic roofs must comply with U-factors per Table 170.2-A.

01	<input type="checkbox"/>	Include Framed Roof Assemblies in Area-Weighted Average U-factor Calculation ¹				
02		03	04	05	06	07
Tag/Plan Detail ID		Name/Description	Status	Roof Type ²	Exception to Roof Insulation Requirements in §180.2(b)1 (Alts. Only)	Compliance Unit

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. The area-weighted compliance option is not available for assemblies demonstrating compliance with R-value requirements.

² Option B: insulation installed between the roof rafters in contact with the roof deck and an additional layer of ceiling insulation located between the attic and the conditioned space; Option C: ceiling insulation located between the attic and the conditioned space.

Assemblies Using U-factor as Compliance Unit

08	09	10	11	12	13	14	15	16	17
Tag/Plan Detail ID	How Design U-factor was determined	Frame Material	Frame Spacing & Depth	Cavity Insulation per Design	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance	U-factor per Design	Net Area ³ (ft ²)
								per JA4	
								per Software/ Other	

³ Roof area minus any fenestration/ skylight area

Assemblies Using R-value as Compliance Unit

18	19	20	21	22
Tag/Plan Detail ID	Radiant Barrier Req?	Thermal Performance Unit	Minimum R-value Required ³	R-value per Design
			Below Roof Deck ⁴	
			At Ceiling	

³ When R-value is used for low-sloped roof alterations, the value shown here is for continuous insulation per §180.2(b)1Aiii.

⁴ Install the specified R-value with an air space present between the roofing and the roof deck. Such as standard installation of concrete or clay tile. R-values shown are for wood-frame construction with insulation installed between the framing members. Alternatives including insulation above rafters or above roof deck shall comply with the performance standards.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****G. RATED ROOFING MATERIAL (COOL ROOF)**

This table demonstrates compliance with prescriptive roof material requirements in §140.3(a)1A/§170.2(a)1A for new construction, §141.0(a)/§180.1 for additions and §141.0(b)2B/§180.2 for alterations.

Roof recovers and replacements must also document compliance with insulation requirements in Table F. Roof recoats may document compliance with roof material only in Table G.

01	02	03	04	05	06	07	08	09	10
Tag/Plan Detail ID	Name/Description/Location	Status	Occupancy Type	Roof Slope	Roof Material	Compliance Method	Required Minimum Material Performance	Designed Material Performance	U-factor/ R-value of Assembly
							Reflectance	Reflectance ¹	
							Emittance	Emittance	
							SRI	SRI	

¹ FOOTNOTE: If Solar Reflectance (Initial) is indicated in column 07, enter the Initial Reflectance here and the form will convert it to a "Calculated Aged Solar Reflectance" when determining compliance.

H. WALL ASSEMBLY SCHEDULE

This table demonstrates compliance with prescriptive wall assembly requirements in §140.3(a)/§170.2(a) for new construction, §141.0(a)/§180.1 for additions and §141.0(b)1B/§180.2 for alterations.

01	Indicate wall types included in the project: ¹	<input type="checkbox"/> Framed	<input type="checkbox"/> Mass (new only)	<input type="checkbox"/> Concrete Sandwich Panel (new only)	<input type="checkbox"/> SIPs	<input type="checkbox"/> ICF (new only)
		<input type="checkbox"/> Metal Panel	<input type="checkbox"/> Metal Building	<input type="checkbox"/> Spandrel/ Curtain Wall	<input type="checkbox"/> Straw Bale	<input type="checkbox"/> Log Home (new only)

¹ FOOTNOTE: Wall types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and should be clicked above and compliance demonstrated within this table.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Framed Walls**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Metal Framed Walls ¹								
02	<input type="checkbox"/>	Include Wood Framed Walls in Area-Weighted Average U-factor Calculation ¹								
03	04	05	06	07	08	09	10	11	12	13
Tag/Plan Detail ID	Occupancy & Status	How Design U- factor was determined	Location/ Fire Rating	Frame Material, Spacing & Depth	Cavity Insulation per Design	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design	Net Area ³ (ft ²)
									per JA4	
									per Software/ Other	
14	Location in Construction Documents showing Air Barrier									

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal framed walls may not be combined with other wall types. Wood framed walls are combined with SIPs, spandrel & curtain, metal panel and straw bale wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

² If "R-value" is shown in cell 10 as the Thermal Performance Unit, the R-value shown here is for cavity insulation per §141.0(b)1B

³ Wall area minus any fenestration area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Mass Walls (new walls only)**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Mass Walls ¹									
02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy Type	How Design U-factor was determined	Mass Information			Additional Insulation Information		Maximum U-factor Allowed ²	U-factor per Design		Net Area ³ (ft ²)
			Mass Material	Fill Options	Thickness (in)	Frame Material & Thickness (in)	Cavity Insulation per Design				
									per JA4		
									per Software/ Other		
13	Location in Construction Documents showing Air Barrier										

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Mass walls are combined with concrete sandwich panel, log & ICF wall types. Mass walls must meet mandatory insulation requirements in §120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new construction.

² Mass walls are defined as "light" or "heavy" depending on their Heat Capacity. Heat Capacity is determined in Tables 4.3.5 and 4.3.6 in Joint Appendix 4. Walls with Heat Capacity of 15 or greater are "heavy" while walls with Heat Capacity from 7 to less than 15 are "light". Walls with heat capacity less than 7 would be categorized as "Wood framed and Other" for compliance purposes.

³ Wall area minus any fenestration area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Concrete Sandwich Panel Walls (new walls only)**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Concrete Sandwich Panel Walls ¹									
02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy Type	How Design U-factor was determined	Mass Information		Insulation Thickness/ R-value	Additional Insulation Information		Maximum U-factor Allowed ²	U-factor per Design		Net Area ³ (ft ²)
			Percent Concrete Web	Steel Penetrates Insulation?		Frame Material & Thickness (in)	Cavity Insulation per Design				
									per JA4		
									per Software/ Other		
13	Location in Construction Documents showing Air Barrier										

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Concrete sandwich panels are combined with mass, log & ICF wall types. Concrete Sandwich Panel walls must meet mandatory insulation requirements in §120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new construction.

² Concrete Sandwich Panel walls are defined as "heavy" since their Heat Capacity is 15 or greater as determined in Table 4.3.7 in Joint Appendix 4.

³ Wall area minus any fenestration area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Structural Insulated Panels (SIPs) Walls**

01	<input type="checkbox"/>	Include SIPs Walls in Area-Weighted Average U-factor Calculation ¹									
02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy & Status	How Design U-factor was determined	Wood Framing Connection Type (Spline)	Panel Thickness (in.)	Core Insulation per Design	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design		Net Area ³ (ft ²)
									per JA4		
									Per Software/Other		
13	Location in Construction Documents showing Air Barrier										

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. SIP walls are combined with wood framed, spandrel & curtain, metal panel and straw bale wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in §141.0(b)1B3.

² If "R-value" is shown in cell 09 as the Thermal Performance Unit, the R-value shown here is for core insulation per §141.0(b)1B3.

³ Wall area minus any fenestration area

Spandrel & Curtain Walls

01	<input type="checkbox"/>	Include Spandrel/ Curtain Walls in Area-Weighted Average U-factor Calculation ¹								
02	03	04	05	06	07	08	09	10		11
Tag/Plan Detail ID	Occupancy & Status	How Design U-factor was determined	Type	Finish	Insulation R-value	Thermal Performance Unit	Required Thermal Performance	U-factor per Design		Net Area ² (ft ²)
								per JA4		
								per Software/Other		
12	Location in Construction Documents showing Air Barrier									

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Spandrel/ Curtain walls are combined with wood framed, SIPs, metal panel and straw bale wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in §141.0(b)1B4.

² Wall area minus any fenestration area

Metal Building Walls

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Metal Building Walls ¹								
02	03	04	05	06	07	08	09	10	11	
Tag/Plan Detail ID	Occupancy & Status	How Design U-factor was determined	Insulation System	Cavity Insulation per Design	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design		Net Area ³ (ft ²)
								per JA4		
								per Software/ Other		
12	Location in Construction Documents showing Air Barrier									

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal Building walls may not be combined with other wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-value in §141.0(b)1B1.

² If "R-value" is shown in cell 10 as the Thermal Performance Unit, the R-value shown here is for cavity insulation per §141.0(b)1B1.

³ Wall area minus any fenestration area

Metal Panel Walls

01	<input type="checkbox"/>	Include Metal Panel Walls in Area-Weighted Average U-factor Calculation ¹							
02	03	04	05	06	07	08	09		
Tag/Plan Detail ID	Name/ Description	Occupancy & Status	How Design U-factor was determined	Panel Thickness (in.)	Maximum U-factor Allowed	U-factor per Design		Net Area ² (ft ²)	
						per JA4			
						per Software/ Other			
10	Location in Construction Documents showing Air Barrier								

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal Panel walls are combined with wood framed, spandrel & curtain, SIPs and straw bale wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in §141.0(b)1B3.

² Wall area minus any fenestration area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Log Home Walls (new walls only)**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Log Home Walls ¹							
02	03	04	05	06	07	08	09		10
Tag/Plan Detail ID	Occupancy Type	How Design U- factor was determined	Log Diameter (in)	Additional Insulation Information		Maximum U-factor Allowed ²	U-factor per Design		Net Area ³ (ft ²)
				Frame Material & Thickness (in)	Cavity Insulation per Design				
							per JA4		
							per Software		
11	Location in Construction Documents showing Air Barrier								

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Log walls are combined with concrete sandwich panel, mass & ICF wall types. Log Home walls must meet mandatory insulation requirements in §120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new construction.

² Log Home walls are defined as "wood framed and other" or "light" depending on their Heat Capacity. Heat Capacity is determined in Table 4.3.11 in Joint Appendix 4. Walls with Heat Capacity from 7 to less than 15 are "light". Walls with heat capacity less than 7 would be categorized as "Wood framed and Other" for compliance purposes.

³ Wall area minus any fenestration area

Straw Bale Walls

01	<input type="checkbox"/>	Include Straw Bale Walls in Area-Weighted Average U-factor Calculation ¹							
02	03	04	05	06	07	08	09		10
Tag/Plan Detail ID	Name/ Description	Occupancy & Status	How Design U- factor was determined	Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design		Net Area ³ (ft ²)
							per JA4		
							per Software/ Other		
11	Location in Construction Documents showing Air Barrier								

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Straw bale walls are combined with wood framed, spandrel & curtain, metal panel and SIPs wall types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in §141.0(b)1B3.

² If "R-value" is shown in cell 07 as the Thermal Performance Unit, the R-value shown here is for cavity insulation per §141.0(b)1B3.

³ Wall area minus any fenestration area

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Insulated Concrete Form Walls (new walls only)**

01	<input type="checkbox"/>		Calculate Area-Weighted Average U-factor for ICF Walls ¹							
02	03	04	05	06	07	08	09	10	11	
Tag/Plan Detail ID	Occupancy Type	How Design U- factor was determined	ICF Type	Concrete Core Thickness (in)	Insulation Type	Insulation Thickness (in)	Maximum Allowed U- factor ²	U-factor per Design		Net Area ³ (ft ²)
								per JA4		
								per Software/ Other		
12	Location in Construction Documents showing Air Barrier									

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. ICF walls are combined with concrete sandwich panel, log & mass wall types. ICF walls must meet mandatory insulation requirements in §120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new construction.

² ICF walls are defined as "light" or "heavy" depending on their Heat Capacity. Heat Capacity is determined in Table 4.3.13 in Joint Appendix 4. Walls with Heat Capacity of 15 or greater are "heavy" while walls with Heat Capacity from 7 to less than 15 are "light".

³ Wall area minus any fenestration area

I. FLOOR ASSEMBLY SCHEDULE

This table demonstrates compliance with prescriptive floor assembly requirements in §140.3(a)4/§170.2(a)5 for new construction, §141.0(a)/§180.1 for additions or mandatory floor assembly requirements in §141.0(b)1C/§180.2 for alterations.

01	Indicate floor types included in the project: ¹	<input type="checkbox"/> Framed	<input type="checkbox"/> SIPs (new only)	<input type="checkbox"/> Raised Mass	<input type="checkbox"/> Heated Slab-on-grade (new only)	<input type="checkbox"/> Unheated Slab-on-grade
----	--	---------------------------------	--	--------------------------------------	--	---

¹ FOOTNOTE: Floor types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and should be clicked above, and compliance demonstrated within this table.

There are no prescriptive requirements for unheated slab-on-grade floors for nonresidential buildings, so you do not need to document them.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Framed Floors**

01	<input type="checkbox"/>	Include Framed Floors in Area-Weighted Average U-factor Calculation ¹									
02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy & Status	How Design U-factor was determined	Crawlspace	Frame Material, Spacing & Depth	Cavity Insulation per Design	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design		Area (ft ²)
									per JA4		
									per Software/ Other		
13	Location in Construction Documents showing Air Barrier										

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Framed floors are combined with SIPs floors. The area-weighted compliance option is not available for assemblies demonstrating compliance with R-values.

² If "R-value" is shown in cell 09 as the Thermal Performance Unit, the R-value shown here is for cavity insulation

Structural Insulated Panels (SIPs) Floors (new floors only)

01	<input type="checkbox"/>	Include SIPs Floors in Area-Weighted Average U-factor Calculation ¹									
02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy Type	How Design U-factor was determined	Crawlspace	Wood Framing Connection Type (Spline)	Panel Thickness (in.)	Core Insulation per Design	Continuous Insulation per Design	Maximum U-factor Allowed	U-factor per Design		Area (ft ²)
									per JA4		
									per Software/ Other		
13	Location in Construction Documents showing Air Barrier										

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. SIPs floors are combined with Framed floors.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Raised Mass Floors**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Raised Mass Floors ¹								
02	03	04	05	06	07	08	09	10	11	
Tag/Plan Detail ID	Name/ Description	Occupancy & Status	How Design U-factor was determined	Insulation Location	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance ²	U-factor per Design		Area (ft ²)
								per JA4		
								per Software/ Other		
12	Location in Construction Documents showing Air Barrier									

¹ FOOTNOTE: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Raised Mass floors may not be combined with other floor types. The area-weighted compliance option is not available for assemblies demonstrating compliance with R-values.

² If "R-value" is shown in cell 08 as the Thermal Performance Unit, the R-value shown here is for continuous insulation.

Heated Slab-on-Grade Floors (new floors only)

01	02	03	04	05	06	07	08
Tag/Plan Detail ID	Name/ Description	Insulation Location	Insulation Orientation	Min. R-value required	R-value per Design	Insulation Materials & Install	Location in Construction Documents
			Vertical		R-	Materials & install requirements meeting §110.8(g) have been included in the construction documents.	
			Horizontal		R-		

Multifamily Slab-on-Grade Floors (new floors in Climate Zone 16 only)

01	02	03	04	05	06	07	08
Tag/Plan Detail ID	Name/ Description	Insulation Location	Thermal Performance Unit	Required Thermal Performance	Thermal Performance per Design	Insulation Depth	Location in Construction Documents
						The minimum depth of concrete slab floor perimeter insulation shall be 16 inches or the depth of the footing of the building, whichever is less.	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****J. EXTERIOR DOOR SCHEDULE**

This table demonstrates compliance with prescriptive exterior door requirements in §140.3(a)7/§170.2(a)4 for new construction or additions. Doors which are being replaced (alterations) do not need to be documented in this table because there are no Title 24, Part 6 requirements that apply. Exterior doors separate conditioned space from unconditioned space or from ambient air. Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on Table K with fenestration per Table B.

Exterior Opaque Doors.

01	02	03	04	05	06	07	
Tag/Plan Detail ID	Name/Description	Occupancy Type	Door Type	Door Insulation	Maximum Allowed U-factor	U-factor per Design	
						per JA4	

Vestibules

Public entrances in newly constructed buildings of occupancy types A, B, E, I, and M shall include an enclosed vestibule meeting the requirements of §120.7(e)				
01	02	03	04	05
Tag/Plan Detail ID	Exception to §120.7(e)	Shut off Controls	Thermostat	Self-Closing Device

K. FENESTRATION AND GLAZED DOOR SCHEDULE

This table demonstrates compliance with prescriptive fenestration requirements in §140.3(a)5/§170.2(a)3 for new construction, §141.0(a)/§180.1 for additions, or §141.0(b)2A/§180.2 for alterations. Exterior doors that are more than 25% glass in area are considered Glazed Doors and should be documented on this table with fenestration.

01	Indicate fenestration types included in the project: ¹	<input type="checkbox"/> Vertical (alteration)	<input type="checkbox"/> Vertical (new)	<input type="checkbox"/> Multifamily Vertical/Glazed Door (new)	<input type="checkbox"/> Skylights	<input type="checkbox"/> Glazed Doors (new only)
----	---	--	---	---	------------------------------------	--

¹ FOOTNOTE: Fenestration types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and should be clicked above and compliance demonstrated within this table.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Vertical Fenestration and Glazed Doors- Total Building & West Facing Area (New Construction & Additions Only)**

01	02	03	04	05
Elevation Item Tag/ Description	Orientation (Azimuth) ¹	Gross Exterior Wall Area ² (ft ²)	Display Perimeter Length ² (ft)	Vertical Fenestration Area per Design ³ (ft ²)
06	Maximum Allowed Vertical Fenestration (ft ²)- All Orientations		07	Total Vertical Fenestration (ft ²) per Design- All Orientations
08	Maximum Allowed Vertical Fenestration (ft ²)- West Facing		09	Total Vertical Fenestration (ft ²) per Design- West Facing

¹ FOOTNOTE: Orientation between 226 deg and 315 deg are considered "West Facing". A diagram has been provided in the Nonresidential Compliance Manual for visual reference.

² Do not include demising walls per §140.3(a)5.

³ Includes glazed door fenestration area.

Multifamily Exterior Vertical Fenestration and Glazed Doors- Total Building Area (New Construction & Additions Only)

01	02	03	04	05
Elevation Item Tag/ Description	Orientation (Azimuth) ¹	Gross Exterior Wall Area ² (ft ²)	Multifamily Conditioned Floor Area (ft ²)	Vertical Fenestration Area per Design ³ (ft ²)
06	Maximum Allowed Vertical Fenestration (ft ²)- All Orientations		07	Total Vertical Fenestration (ft ²) per Design- All Orientations

¹ FOOTNOTE: Orientation between 226 deg and 315 deg are considered "West Facing". A diagram has been provided in the Nonresidential Compliance Manual for visual reference.

² Do not include demising walls per §170.2(a)3Ai.

³ Includes glazed door fenestration area but does not include fenestration in demising walls.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Vertical Fenestration and Glazed Doors- U-factor, Solar Heat Gain Coefficient (RSHGC/SHGC), Visible Transmittance (VT)**

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Vertical Fenestration and Glazed Doors ¹							
02	<input type="checkbox"/>	Calculate Area-Weighted Average (R)SHGC for Vertical Fenestration and Glazed Doors ¹							
03	<input type="checkbox"/>	Calculate Area-Weighted Average VT for Vertical Fenestration and Glazed Doors ¹							
04	05	06	07	08	09	10	11	12	13
Tag/Plan ID	Fenestration Type	Occupancy & Status	U-factor/ (R)SHGC Compliance Method	VT Compliance Method	Calculation Method for Performance Values per Design ²	Product Performance Unit	Required Product Performance	Product Performance per Design	Area (ft ²)
						U-factor (max)			
						(R)SHGC (max)			
					<input type="checkbox"/> Overhang/Slats used for RSHGC	VT (min)			
14		15		16		17		18	
NA6 Default Calculation									
Is the Window Projecting? ⁴		Frame Type		Glazing Type		Product Performance Unit	Center of Glass (COG) Product Performance		Product Performance per NA6
						U-factor			
						SHGC			
						VT			
20		21		22		23		24	
§110.6 Default Tables									
Greenhouse/ Garden Window?	Is the Window Projecting? ⁴			Frame Type	Glazing Type	Glazing Tint	Product Performance per Default 110.6 Tables		
							U-factor		
							SHGC		
							VT		
26		27		28		29		30	
Overhang Details for RSHGC per §140.3/ §170.2									
SHGC of Window	Overhang or Horizontal Slats?		Azimuth of Fenestration (deg)		Projection per Eq. 140.3-C/ 170.2-A	Spacing per Eq. 140.3-C/ 170.2-A	Projection Factor	RSHGC	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Skylights- Total Area**

<input type="checkbox"/>	Multifamily adding up to 16ft2 of skylight per dwelling unit?		
01	02	03	04
Building has Atria > 55ft?	Gross Exterior Roof Area (ft ²)	Maximum Allowed Skylight Area ¹ (ft ²)	Total Skylight Area per Design (ft ²)

¹ FOOTNOTE: 5% of total roof area allowed for areas other than atria > 55ft. 10% allowed for atria > 55ft.

Skylights- U-factor, Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT)

01	<input type="checkbox"/>	Calculate Area-Weighted Average U-factor for Skylights ¹							
02	<input type="checkbox"/>	Calculate Area-Weighted Average SHGC for Skylights ¹							
03	<input type="checkbox"/>	Calculate Area-Weighted Average VT for Skylights ¹							
04	05	06	07	08	09	10		11	12
Tag/Plan ID	Fenestration Type	Occupancy & Status	Calculation Method for Performance Values per Design ²	Glaze/ Diffuser with Haze Value > 90%?	Compliance Method for Multifamily Alterations	Product Performance Unit	Required Product Performance	Product Performance per Design	Area (ft ²)
						U-factor (max)			
						SHGC (max)			
						VT (min)			
13		14		15			16		
NA6 Default Calculation									
Frame Type		Product Performance Unit		Center of Glass (COG) Product Performance				Product Performance per NA6	
		U-factor							
		SHGC							
		VT							
17	18		19		20	21			
§110.6 Default Tables									
Operable/Fixed	Frame Type		Glazing Type		Glazing Tint	Product Performance per Default 110.6 Tables			
						U-factor			
						SHGC			
						VT			

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****L. DAYLIGHT IN LARGE ENCLOSED SPACES**

This table demonstrates compliance with prescriptive daylight zone requirements in §140.3(c)/§170.2(b) for new construction, additions, or alterations which install a new lighting system within climate zones 2-15. Enclosed spaces greater than 5,000ft² and under a roof with at least a 15ft ceiling height must be included in the table.

01	Plan Sheet Showing Daylit Zones:										
02	03	04	05	06	07	08	09	10	OR	11	
Space Name	Compliance Method	Total Area of Space (ft²)	Skylit Daylit Zone Area per Design (ft²)	Primary Sidelit Daylit Zone Area per Design¹ (ft²)	Compliance with §140.3(c)1/§170.2(b)		Total Skylight Area per Design² (ft²)	Compliance with §140.3(c)4/§170.2(b)		Alternate Compliance with §140.3(c)4/§170.2(b)	
					Required Minimum Daylit Area (ft²)	Daylit Area per Design (ft²)		Skylight Area to Skylit Daylit Zone Area Ratio³ (%)		Skylight Weighted Average VT²	Skylight Area x VT to Skylit Daylit Zone Area Ratio⁴ (%)

¹ FOOTNOTE: Any area which falls within the Skylit Daylit Zone may not be double counted for the Primary Sidelit Daylit Zone.

² May be calculated by Table K Fenestration Schedule.

³ Must be at least 3% to comply with §140.3(c)4/§170.2(b).

⁴ Must be at least 1.5% to comply with §140.3(c)4/§170.2(b).

M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Low-rise Multifamily and Multifamily Mixed-use Certificates of Installation

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-ENV-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-ENV-21-H - QII Framing Stage (Applies to "R" occupancy only)	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-ENV-21-H - QII Framing Stage (Applies to "R" occupancy only)	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****O. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**

Low-rise Multifamily and Multifamily Mixed-use Certificates of Verification

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be completed by a ECC Rater and provided to the building inspector during construction. The final documents must be created by a ECC Providers registry, but drafts can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-ENV-20a-H -Enclosure Air Leakage Single Point Test- Manual Meter (Applies to "R" occupancy only) Note: The requirement for this LMCV is indicated on the LMCC-MCH (prescriptive) or LMCC-PRF (performance) because it is only relevant if the mechanical IAQ system is not balanced.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-ENV-20b-H -Enclosure Air Leakage Single Point Test- Automatic Meter (Applies to "R" occupancy only) Note: The requirement for this LMCV is indicated on the LMCC-MCH (prescriptive) or LMCC-PRF (performance) because it is only relevant if the mechanical IAQ system is not balanced.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-ENV-21-H -QII Framing Stage (Applies to "R" occupancy only)	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-ENV-22-H -QII Insulation Stage (Applies to "R" occupancy only)	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ENV-01-E
Envelope Component Approach	(Page 1 of 13)

A. GENERAL INFORMATION

1. Enter the City the project is located in.
2. Enter the Zip code.
3. Climate Zone: Select from dropdown.
4. Select the applicable Occupancy Types within the Project.
5. Enter the Number of Stories Above Grade.
6. Enter the Total Conditioned Floor Area.
7. Enter the Total Unconditioned Floor Area.
8. Check to Indicate if the project includes unconditioned enclosed spaces(s) greater than 5,000 square feet under a roof with a ceiling height of at least 15 ft.

B. PROJECT SCOPE

1. Select the Scope of Work.
2. Select the Component Types included in the project.

C. COMPLIANCE RESULTS

1. Results in this table are automatically calculated from data input and calculations in Tables F through L.

D. EXCEPTIONAL CONDITIONS

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

1. Enter any notes or comments for the AHJ.

F. ROOF ASSEMBLY SCHEDULE

1. Select the roof types included in the project.

Framed Roof Assemblies

1. Check to include Framed Roof Assemblies in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Exception to Roof Insulation Requirement: Select from dropdown.
6. Occupancy Type: Select from dropdown.
7. This field is filled out automatically.
8. How Design U-factor was determined: Select from dropdown.
9. Roof Type & Frame Material: Select from dropdown or user input.
10. Frame Spacing & Depth: Select from dropdown or user input.
11. Cavity Insulation per Design: Select from dropdown or user input.
12. Continuous Insulation per Design: Select from dropdown or user input.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ENV-01-E
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13. Thermal Performance Unit: Select from dropdown.
14. Required Thermal Performance: Select from dropdown.
15. U-factor per Design: Select from dropdown or user input.
16. Enter the Net Area.

Structural Insulated Panels (SIPs) Roof/Ceiling Assemblies

1. Check to include SIPs Roof Assemblies in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Exception to Roof Insulation Requirement: Select from dropdown.
6. Occupancy Type: Select from dropdown.
7. This field is filled out automatically.
8. How Design U-factor was determined: Select from dropdown.
9. Wood Framing Connection Type: Select from dropdown or user input.
10. Panel Thickness: Select from dropdown or user input.
11. Core Insulation per Design: Select from dropdown or user input.
12. Continuous Insulation per Design: Select from dropdown or user input.
13. Thermal Performance Unit: Select from dropdown.
14. Required Thermal Performance: Select from dropdown.
15. U-factor per Design: Select from dropdown or user input.
16. Enter the Net Area.

Span Deck & Concrete Roof Assemblies

1. Check to include Span Deck & Concrete Roof Assemblies in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Exception to Roof Insulation Requirement: Select from dropdown.
6. Occupancy Type: Select from dropdown.
7. This field is filled out automatically.
8. How Design U-factor was determined: Select from dropdown.
9. Fireproofing: Select from dropdown or user input.
10. Concrete Topping Thickness: Select from dropdown or user input.
11. Continuous Insulation per Design: Select from dropdown or user input.
12. Thermal Performance Unit: Select from dropdown.
13. Required Thermal Performance: Select from dropdown.
14. U-factor per Design: Select from dropdown or user input.
15. Enter the Net Area.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ENV-01-E
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Metal Panel Assemblies

1. Check to include Metal Panel Roof Assemblies in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Exception to Roof Insulation Requirement: Select from dropdown.
6. Occupancy Type: Select from dropdown.
7. This field is filled out automatically.
8. How Design U-factor was determined: Select from dropdown.
9. Panel Thickness: Select from dropdown or user input.
10. Thermal Performance Unit: Select from dropdown.
11. Required Thermal Performance: Select from dropdown.
12. U-factor per Design: Select from dropdown or user input.
13. Enter the Net Area.

Metal Building Roof Assemblies

1. Check to calculate Area-Weighted Average U-factor for Metal Building Roofs.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Exception to Roof Insulation Requirement: Select from dropdown.
6. Occupancy Type: Select from dropdown.
7. This field is filled out automatically.
8. How Design U-factor was determined: Select from dropdown.
9. Insulation System: Select from dropdown or user input.
10. Cavity Insulation per Design: Select from dropdown or user input.
11. Continuous Insulation per Design: Select from dropdown or user input.
12. Thermal Performance Unit: Select from dropdown.
13. Required Thermal Performance: Select from dropdown.
14. U-factor per Design: Select from dropdown or user input.
15. Enter the Net Area.

Multifamily Framed Roof Assemblies

1. Check to include Framed Roof Assemblies in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description
4. Status: Select from dropdown.
5. Roof Type: Select from dropdown.
6. Exception to Roof Insulation Requirement: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ENV-01-E
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7. Compliance Unit: Select from dropdown.

Assemblies Using U-factor as Compliance Unit

8. This field is filled out automatically.

9. How Design U-factor was determined: Select from dropdown.

10. Frame Material: Select from dropdown or user input.

11. Frame Spacing & Depth: Select from dropdown or user input.

12. Cavity Insulation per Design: Select from dropdown or user input.

13. Continuous Insulation per Design: Select from dropdown or user input.

14. Thermal Performance Unit static text.

15. Required Thermal Performance: Select from dropdown.

16. U-factor per Design: Select from dropdown or user input.

17. Enter the Net Area.

Assemblies Using R-value as Compliance Unit

18. This field is filled out automatically.

19. This field is filled out automatically.

20. Thermal Performance Unit static text.

21. This field is filled out automatically.

22. Enter the R-value per Design.

G. RATED ROOFING MATERIAL (COOL ROOF)

1. Enter the Tag/Plan Detail ID

2. Enter the Name/Description/Location.

3. Status: Select from dropdown.

4. Occupancy Type: Select from dropdown.

5. Roof Slope: Select from dropdown.

6. Roof Material: Select from dropdown.

7. Compliance Method: Select from dropdown.

8. This field is filled out automatically.

9. Enter the Designed Material Performance values.

10. U-factor/R-value of Assembly: Select from dropdown.

H. WALL ASSEMBLY SCHEDULE

1. Select the wall types included in the project.

Framed Walls

1. Check to calculate Area-Weighted Average U-factor for Metal Framed Walls.

2. Check to include Wood Framed Walls in Area-Weighted Average U-factor Calculation.

3. Enter the Tag/Plan Detail ID.

4. Occupancy & Status: Select from dropdown.

5. How Design U-factor was determined: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-ENV-01-E
Envelope Component Approach	(Page 5 of 13)

6. Location/Fire Rating: Select from dropdown.
7. Frame Material, Spacing & Depth: Select from dropdown.
8. Cavity Insulation per Design: Select from dropdown or user input.
9. Continuous Insulation per Design: Select from dropdown or user input.
10. Thermal Performance Unit: Select from dropdown.
11. This field is filled out automatically.
12. U-factor per Design: Select from dropdown or user input.
13. Enter the Net Area.

Mass Walls (new walls only)

1. Check to calculate Area-Weighted Average U-factor for Mass Walls.
2. Enter the Tag/Plan Detail ID.
3. Occupancy Type: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Mass Material: Select from dropdown.
6. Fill Options: Select from dropdown.
7. Thickness: Select from dropdown.
8. Frame Material & Thickness: Select from dropdown or user input.
9. Cavity Insulation per Design: Select from dropdown or user input.
10. This field is filled out automatically.
11. U-factor per Design: Select from dropdown or user input.
12. Enter the Net Area.

Concrete Sandwich Panel Walls (new walls only)

1. Check to calculate Area-Weighted Average U-factor for Concrete Sandwich Panel Walls.
2. Enter the Tag/Plan Detail ID.
3. Occupancy Type: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Percent Concrete Web: Select from dropdown.
6. Steel Penetrates Insulation: Select from dropdown.
7. Insulation Thickness/R-value: Select from dropdown.
8. Frame Material & Thickness: Select from dropdown or user input.
9. Cavity Insulation per Design: Select from dropdown or user input.
10. This field is filled out automatically.
11. U-factor per Design: Select from dropdown or user input.
12. Enter the Net Area.

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Structural Insulated Panels (SIPs) Walls

1. Check to include SIPs Walls in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Occupancy & Status: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Wood Framing Connection Type: Select from dropdown or user input.
6. Panel Thickness: Select from dropdown or user input.
7. Core Insulation per Design: Select from dropdown or user input.
8. Continuous Insulation per Design: Select from dropdown or user input.
9. Thermal Performance Unit: Select from dropdown.
10. This field is filled out automatically.
11. U-factor per Design: Select from dropdown or user input.
12. Enter the Net Area.

Spandrel & Curtain Walls

1. Check to include Spandrel/Curtain Walls in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Occupancy & Status: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Type: Select from dropdown or user input.
6. Finish: Select from dropdown or user input.
7. Insulation R-value: Select from dropdown or user input.
8. Thermal Performance Unit: Select from dropdown.
9. This field is filled out automatically.
10. U-factor per Design: Select from dropdown or user input.
11. Enter the Net Area.

Metal Building Walls

1. Check to calculate Area-Weighted Average U-factor for Concrete Sandwich Panel Walls.
2. Enter the Tag/Plan Detail ID.
3. Occupancy & Status: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Insulation System: Select from dropdown or user input.
6. Cavity Insulation per Design: Select from dropdown or user input.
7. Continuous Insulation per Design: Select from dropdown or user input.
8. Thermal Performance Unit: Select from dropdown.
9. This field is filled out automatically.
10. U-factor per Design: Select from dropdown or user input.

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11. Enter the Net Area.

Metal Panel Walls

1. Check to include Metal Panel Walls in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description.
4. Occupancy & Status: Select from dropdown.
5. How Design U-factor was determined: Select from dropdown.
6. Panel Thickness: Select from dropdown or user input.
7. This field is filled out automatically.
8. U-factor per Design: Select from dropdown or user input.
9. Enter the Net Area.

Log Home Walls (new walls only)

1. Check to calculate Area-Weighted Average U-factor for Log Home Walls.
2. Enter the Tag/Plan Detail ID.
3. Occupancy Type: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Log Diameter: Select from dropdown or user input.
6. Frame Material & Thickness: Select from dropdown or user input.
7. Cavity Insulation per Design: Select from dropdown or user input.
8. This field is filled out automatically.
9. U-factor per Design: Select from dropdown or user input.
10. Enter the Net Area.

Straw Bale Walls

1. Check to include Straw Bale Walls in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description.
4. Occupancy & Status: Select from dropdown.
5. How Design U-factor was determined: Select from dropdown.
6. Insulation per Design: Select from dropdown or user input.
7. Thermal Performance Unit: Select from dropdown.
8. This field is filled out automatically.
9. U-factor per Design: Select from dropdown or user input.
10. Enter the Net Area.

Insulated Concrete Form Walls (new walls only)

1. Check to calculate Area-Weighted Average U-factor for ICF Walls.

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2. Enter the Tag/Plan Detail ID.
3. Occupancy Type: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. ICF Type: Select from dropdown.
6. Concrete Core Thickness: Select from dropdown.
7. Insulation Type: Select from dropdown.
8. Insulation Thickness: Select from dropdown.
9. This field is filled out automatically.
10. U-factor per Design: Select from dropdown or user input.
11. Enter the Net Area.

I. FLOOR ASSEMBLY SCHEDULE

1. Select the floor types included in the project.

Framed Floors

1. Check to include Framed Floors in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Occupancy & Status: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Crawlspace: Select from dropdown.
6. Frame Material, Spacing & Depth: Select from dropdown or user input.
7. Cavity Insulation per Design: Select from dropdown or user input.
8. Continuous Insulation per Design: Select from dropdown or user input.
9. Thermal Performance Unit: Select from dropdown.
10. This field is filled out automatically.
11. U-factor per Design: Select from dropdown or user input.
12. Enter the Net Area.

Structural Insulated Panels (SIPs) Floors

1. Check to include SIPs Floors in Area-Weighted Average U-factor Calculation.
2. Enter the Tag/Plan Detail ID.
3. Occupancy Type: Select from dropdown.
4. How Design U-factor was determined: Select from dropdown.
5. Crawlspace: Select from dropdown.
6. Wood Framing Connection Type: Select from dropdown or user input.
7. Panel Thickness: Select from dropdown or user input.
8. Core Insulation per Design: Select from dropdown or user input.
9. Continuous Insulation per Design: Select from dropdown or user input.

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10. This field is filled out automatically.
11. U-factor per Design: Select from dropdown or user input.
12. Enter the Net Area.

Raised Mass Floors

1. Check to calculate Area-Weighted Average U-factor for Raised Mass Floors.
2. Enter the Tag/Plan Detail ID.
3. Enter the Name/Description.
4. Occupancy & Status: Select from dropdown.
5. How Design U-factor was determined: Select from dropdown.
6. Insulation Location: Select from dropdown or user input.
7. Continuous Insulation per Design: Select from dropdown or user input.
8. Thermal Performance Unit: Select from dropdown.
9. This field is filled out automatically.
10. U-factor per Design: Select from dropdown or user input.
11. Enter the Net Area.

Heated Slab-on-Grade Floors

1. Enter the Tag/Plan Detail ID.
2. Enter the Name/Description.
3. Insulation Location: Select from dropdown.
4. Insulation Orientation static text.
5. This field is filled out automatically.
6. Enter the R-value per Design.
7. Insulation Materials & Install static text.
8. Enter the Location in Construction Documents.

Low-rise Multifamily Slab-on-Grade Floors (new floors in Climate Zone 16 only)

1. Enter the Tag/Plan Detail ID.
2. Enter the Name/Description.
3. This field is filled out automatically.
4. Thermal Performance Unit: Select from dropdown.
5. This field is filled out automatically.
6. Enter the Thermal Performance per Design.
7. Insulation Depth static text.
8. Enter the Location in Construction Documents.

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J. EXTERIOR DOOR SCHEDULE

Exterior Opaque Doors

1. Enter the Tag/Plan Detail ID.
2. Enter the Name/Description.
3. Occupancy Type: Select from dropdown.
4. Door Type: Select from dropdown.
5. Door Insulation: Select from dropdown.
6. This field is filled out automatically.
7. This field is filled out automatically.

Vestibules

1. Enter the Tag/Plan Detail ID.
2. Exception to 120.7(e): Select from dropdown.
3. Shut Off Controls: Select from dropdown.
4. Thermostat: Select from dropdown.
5. Self-Closing Device: Select from dropdown.

K. FENESTRATION SCHEDULE

1. Select the fenestration types included in the project.

Vertical Fenestration and Glazed Doors- Total Building & West Facing Area

1. Enter the Elevation Item Tag/Description.
2. Orientation (Azimuth): Select from dropdown.
3. Enter the Gross Exterior Wall Area.
4. Enter the Display Perimeter Length.
5. Enter the Vertical Fenestration Area per Design.
6. This field is filled out automatically.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. This field is filled out automatically.

Multifamily Exterior Vertical Fenestration and Glazed Doors- Total Building Area

1. Enter the Elevation Item Tag/Description.
2. Orientation (Azimuth): Select from dropdown.
3. Enter the Gross Exterior Wall Area.
4. Enter the Multifamily Conditioned Floor Area.
5. Enter the Vertical Fenestration Area per Design.
6. This field is filled out automatically.

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7. This field is filled out automatically.

Vertical Fenestration and Glazed Doors- U-factor, Solar Heat Gain Coefficient (RSHGC/SHGC), Visible Transmittance (VT)

1. Check to calculate Area-Weighted Average U-factor for Vertical Fenestration and Glazed Doors.
2. Check to calculate Area-Weighted Average (R)SHGC for Vertical Fenestration and Glazed Doors
3. Check to calculate Area-Weighted Average VT for Vertical Fenestration and Glazed Doors.
4. Enter the Tag/Plan ID.
5. Fenestration Type: Select from dropdown.
6. Occupancy & Status: Select from dropdown.
7. U-factor/ (R)SHGC Compliance Method: Select from dropdown.
8. VT Compliance Method: Select from dropdown.
9. Calculation Method for Performance Values per Design: Select from dropdown.
10. Product Performance Unit static text.
11. This field is filled out automatically.
12. Enter the Product Performance per Design.
13. Enter the Area.

NA6 Default Calculation

14. Is the Window Projecting?: Select from dropdown.
15. Frame Type: Select from dropdown.
16. Glazing Type: Select from dropdown.
17. Product Performance Unit static text.
18. Enter the Center of Glass (COG) Product Performance.
19. This field is filled out automatically.

§110.6 Default Tables

20. Greenhouse/Garden Window?: Select from dropdown.
21. Is the Window Projecting?: Select from dropdown.
22. Frame Type: Select from dropdown.
23. Glazing Type: Select from dropdown.
24. Glazing Tint: Select from dropdown.
25. This field is filled out automatically.

Overhang Details for RSHGC per §140.3/§170.2

26. Enter the SHGC of Window.
27. Overhang or Horizontal Slats?: Select from dropdown.
28. Enter the Azimuth of Fenestration.
29. Enter the Projection per Eq. 140.3-C/ 170.2-A.

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30. Enter the Spacing per Eq. 140.3-C/170.2-A.
31. This field is filled out automatically.
32. This field is filled out automatically.

Skylights – Total Area

Check if Multifamily adding up to 16ft² of skylight per dwelling unit.

1. Building has Atria > 55ft?: Select from dropdown.
2. Enter the Gross Exterior Roof Area.
3. This field is filled out automatically.
4. Enter the Total Skylight Area per Design.

Skylights – U-factor, Solar Heat Gain Coefficient (SHGC), Visible Transmittance (VT)

1. Check to calculate Area-Weighted Average U-factor for Skylights.
2. Check to calculate Area-Weighted Average SHGC for Skylights.
3. Check to calculate Area-Weighted Average VT for Skylights.
4. Enter the Tag/Plan ID.
5. Fenestration Type: Select from dropdown.
6. Occupancy & Status: Select from dropdown.
7. Calculation Method for Performance Values per Design: Select from dropdown.
8. Glaze/ Diffuser with Haze Value > 90%?: Select from dropdown.
9. Compliance Method for Multifamily Alterations: Select from dropdown.
10. This field is filled out automatically.
11. Enter the Product Performance per Design.
12. Enter the Area.

NA6 Default Calculation

13. Frame Type: Select from dropdown.
14. Product Performance Unit static text.
15. Enter the Center of Glass (COG) Product Performance.
16. This field is filled out automatically.

§110.6 Default Tables

17. Operable/Fixed: Select from dropdown.
18. Frame Type: Select from dropdown.
19. Glazing Type: Select from dropdown.
20. Glazing Tint: Select from dropdown.
21. This field is filled out automatically.

L. DAYLIGHT IN LARGE ENCLOSED SPACES

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1. Enter the Plan Sheet Showing Daylit Zones.
2. Enter the Space Name.
3. Compliance Method: Select from dropdown.
4. Enter the Total Area of Space.
5. Enter the Skylit Daylit Zone Area per Design.
6. Enter the Primary Sidelit Daylit Zone Area per Design.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Enter the Total Skylight Area per Design.
10. This field is filled out automatically.
11. Enter the Skylight Weighted Average VT.
12. This field is filled out automatically.

M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

N. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

O. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies in low-rise multifamily mixed-use buildings. It is also used to document compliance with requirements in §160.5, §170.2(e) and §180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area (ft ²)							
02	Climate Zone		05	Total Unconditioned Floor Area (ft ²)							
03	Occupancy Types Within Project (select all that apply):			06	# of Stories (Habitable Above Grade)						
<input type="checkbox"/>	Office	<input type="checkbox"/>	Retail	<input type="checkbox"/>	Warehouse	<input type="checkbox"/>	Hotel/ Motel	<input type="checkbox"/>	School	<input type="checkbox"/>	Support Areas
<input type="checkbox"/>	Low-Rise Residential Multifamily/ MF Mixed-use < 4 stories (includes dormitory, senior living)		<input type="checkbox"/>	Healthcare Facilities	<input type="checkbox"/>	Parking Garage	<input type="checkbox"/>	Theater	<input type="checkbox"/>	Sports Arena	
<input type="checkbox"/>	Auditorium	<input type="checkbox"/>	Commercial/ Industrial	<input type="checkbox"/>	Relocatable	<input type="checkbox"/>	All Others	<input type="checkbox"/>	Data Center	<input type="checkbox"/>	Convention Center
<input type="checkbox"/>	Classroom	<input type="checkbox"/>	Library	<input type="checkbox"/>	Grocery Store	<input type="checkbox"/>	Religious Facility	<input type="checkbox"/>	Financial Institution	<input type="checkbox"/>	Medical Clinic
<input type="checkbox"/>		<input type="checkbox"/>	Gymnasium	<input type="checkbox"/>	Restaurant/ Commercial Kitchen	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6/§170.2(e) or §141.0(b)2/§180.2(b)4 for alterations.

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft ²)	Calculation Method	Area (ft ²)
<input type="checkbox"/> New Lighting System				
<input type="checkbox"/> New Lighting System- Parking Garage				
<input type="checkbox"/> Altered Lighting System				
<input type="checkbox"/> Altered Lighting System – Parking Garage				
Total Area of Work (ft ²)				

ALERT! The One-for-One Luminaire Alteration Method for alterations may only be used for one-for-one luminaire alterations within a building or tenant space of 5,000 ft² or less per §141.0(b)2liii/§180.2(b)4.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1/§170.2(e).

If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

	Allowed Lighting Power per §140.6(b)/§170.2(e) (Watts)					Adjusted Lighting Power per §140.6(a)/§170.2(e) (Watts)			Compliance Results
	01	02	03	04	05	06	07	08	09
	Complete Building §140.6(c)1	Area Category §140.6(c)2/ §170.2(e)4	Area Category Additional §140.6(c)2G/ §170.2(e)4Av (+)	Tailored §140.6(c)3/ §170.2(e)4B (+)		Total Designed (Watts)	Adjustments	Total Adjusted (Watts) *Includes Adjustments	05 Must be >= 08 §140.6/§170.2(e)
							PAF Lighting Control Credits §140.6(a)2/ §170.2(e)1B (-)		
	(See Table I)	(See Table I)	(See Table J)	(See Table K)		(See Table F)	(See Table P)		
Conditioned:									
Unconditioned:									
Controls Compliance (See Table H for Details)								COMPLIES with Exceptional Conditions or COMPLIES or DOES NOT COMPLY	
Rated Power Reduction Compliance (See Table Q for Details)								COMPLIES or DOES NOT COMPLY or NOT APPLICABLE	

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

--

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. INDOOR LIGHTING FIXTURE SCHEDULE**

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change ¹	Watts per luminaire	How Wattage is Determined	Total Number Luminaires	Excluded per §140.6(a)3/ §170.2(e)2C	Excluded per Exception 2 to § 141.0(b)2I / §180.2(b)4Biv	Design Watts	Field Inspector
		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Pass Fail
		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
Total Designed Watts CONDITIONED SPACES:										

Designed Wattage: Unconditioned Spaces

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change ¹	Watts per luminaire	How Wattage is Determined	Total Number Luminaires	Excluded per §140.6(a)3/ §170.2(e)2C	Excluded per Exception 2 to § 141.0(b)2I / §180.2(b)4Biv	Design Watts	Field Inspector
		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		Pass Fail
		<input type="checkbox"/>					<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/>
Total Designed Watts CONDITIONED SPACES:										

¹ FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B/§170.2(e)2D is adjusted to be 75%/80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.

² Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)/§160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****G. MODULAR LIGHTING SYSTEMS**

This table calculates wattage for modular lighting systems/ track lighting fixtures indicated on Table F and transfers the wattage to Table F.

01	02	03												04			
Name or Item Tag	Complete Track Description	Calculation Method per §130.0(c)6												Track Wattage			
		<input type="checkbox"/>	i	Installed Luminaires vs Default 30 W/ft	<input type="checkbox"/>	ii	Current Limiter	<input type="checkbox"/>	iii	Overcurrent Protection Panel ²	<input type="checkbox"/>	iv	Power supplied by driver, power supply or transformer ¹				
		Number of luminaires in system		x	Rated Watts per luminaire		=	Total Watts		OR	Linear ft of track or busway		x	Default W/LF	=	Total Watts	
		VA of current limiter															
		Voltage of branch circuit								x	Sum of Ampere ratings for all devices on panel						
		Maximum rated input wattage per manufacturer															

¹ FOOTNOTE: For power-over-Ethernet lighting systems, power provided to installed non-lighting devices may be subtracted from the total power rating of the power-over-Ethernet system.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****H. INDOOR LIGHTING CONTROLS (Not Including PAFs)**

This table includes lighting controls for conditioned and unconditioned spaces. When a control having a * is shown, the notes section of this table provides more detail on how compliance is achieved. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

Building Level Controls

01	02	03	
Mandatory Demand Response §110.12(c)	Shut-off Controls §130.1(c)/§160.5(b)4C	Field Inspector	
		Pass	Fail
		<input type="checkbox"/>	<input type="checkbox"/>

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Manual Controls §130.1(a)/ §160.5(b)4 A	Multi-Level Controls §130.1(b)/ §160.5(b)4B	Shut-Off Controls §130.1(c)/ §160.5(b)4C	Primary/Skylit Daylighting §130.1(d)/ §160.5(b)4D	Secondary Daylighting §130.1(d)/§160.5(b)4D	Interlocked Systems §140.6(a)1/§170.2 (e)2A	Field Inspector	
								Pass	Fail
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
					13				
					Plan Sheet Showing Daylit Zones:				

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS**

Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft ²)	Area (ft ²)	Allowed Wattage (watts)	Additional Allowance/ Adjustment	
					Area Category	PAF
					<input type="checkbox"/>	<input type="checkbox"/>
TOTALS:						

Unconditioned Spaces

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft ²)	Area (ft ²)	Allowed Wattage (watts)	Additional Allowance/ Adjustment	
					Area Category	PAF
					<input type="checkbox"/>	<input type="checkbox"/>
TOTALS:						

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM**

All areas indicated in Table I as using an additional allowance using the Area Category Method have been included in this table to calculate the additional allowance per Table 140.6-C / 170.2-M.

Conditioned Spaces

01	02	03	04	05	06	07	08	09	10
Area Description	Primary Function Area	Applicable Qualifying Lighting System from Table 140.6-C	Allowed Density (W/ft ²) or (W/lf)	Ltg Area, Length or ATM/ Mirror (ft ² , lf or #)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	Number of Luminaires	Total Design Watts
Total Design Watts:	Calculated Allowance (Watts):	Total Additional Allowance for this area:							
11									
Total Additional Allowance (Watts) UNCONDITIONED SPACES:									

Unconditioned Spaces

01	02	03	04	05	06	07	08	09	10
Area Description	Primary Function Area	Applicable Qualifying Lighting System from Table 140.6-C	Allowed Density (W/ft ²) or (W/lf)	Ltg Area, Length or ATM/ Mirror (ft ² , lf or #)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	Number of Luminaires	Total Design Watts
Total Design Watts:	Calculated Allowance (Watts):	Total Additional Allowance for this area:							
11									
Total Additional Allowance (Watts) UNCONDITIONED SPACES:									

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****K. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))**

This table includes all areas indicated in Table I or Table K as using a PAF credit described in §140.6(a)2/§170.2(e)2B.

Conditioned Spaces

01	02									03	04	05	06	07
Area Description	PAF per §140.6(a)2/§170.2(e)2B ¹ (*Can be used in conjunction with other PAF'S)									Luminaires Controlled for PAF Credit				Additional Control Credit Allowance (Watts)
	1	2A	3	4A*	4B*	5*	6*	7*	8*	Luminaire Name or Item Tag	Watts per Luminaire	Number of Luminaires	Lighting Controlled (Watts)	
	Pick up to one			Pick up to one			Pick up to one ²							
08										09				
<input type="checkbox"/>	All spaces applying PAF 5, 6, or 7 include a daylight design meeting requirement in §140.3(d). See Table S.									Total Power Adjustment (Watts) CONDITIONED SPACES:				

Unconditioned Spaces

01	02									03	04	05	06	07
Area Description	PAF per §140.6(a)2/§170.2(e)2B ¹ (*Can be used in conjunction with other PAF'S)									Luminaires Controlled for PAF Credit				Additional Control Credit Allowance (Watts)
	1	2A	3	4A*	4B*	5*	6*	7*	8*	Luminaire Name or Item Tag	Watts per Luminaire	Number of Luminaires	Lighting Controlled (Watts)	
	Pick up to one			Pick up to one			Pick up to one ²							
08										09				
<input type="checkbox"/>	All spaces applying PAF 5, 6, or 7 include a daylight design meeting requirement in §140.3(d). See Table S.									Total Power Adjustments (Watts) UNCONDITIONED SPACES:				

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

¹ FOOTNOTES: PAFs outlined in Table 140.6-A/170.2-L include 1) Daylight continuous dimming plus OFF; 2) Occupant sensors in offices with one sensor per ≤ 125 ft²; 3) Occupant sensors in offices with one sensor per 126 - 250 ft²; 4A) Institutional tuning, non-daylit areas; 4B) Institutional tuning, daylit areas; 5) Demand response; 6) Clerestory fenestration; 7) Horizontal slats; 8) Light shelves.

² Luminaires that qualify for PAF 5, 6, or 7 can be used in conjunction with PAF 1.

L. ONE-FOR-ONE LUMINAIRE ALTERATIONS

Indoor lighting alterations complying prescriptively with §141.0(b)2l(iii)/§180.2(b)4biv are documented in this table. Any control options having a * will include a note in the Notes section of this table detailing how compliance is achieved, otherwise the compliance status in Table C will say "DOES NOT COMPLY".

01	<input type="checkbox"/>	Alteration scope includes a one-for-one luminaire alteration within a building or tenant space of 5,000 ft ² or less per §141.0(b)2l(iii)/§180.2(b)4biv.				
02	<input type="checkbox"/>	At least one complete floor or complete tenant space includes a one-for-one luminaire alteration of 50 or less luminaires, per annum. These spaces do not need to comply with Part 6 requirements and therefore do not need to be included in tables below per Exception 6 to §141.0(b)2l/§180.2(b)4biv.	Applicable Spaces	OR	<input type="checkbox"/>	Exception 6 applies to all spaces within the permit application

Fixture Schedule (Include all luminaires being altered in the project)

03	04	05	06	07	08	09	10	11	12	13	14
Pre-alteration Luminaire Information						Post-alteration Luminaire Information					
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ¹	How Wattage is Determined	Total number of Luminaires	Total Watts	Name or Item Tag	Complete Luminaire Description	Watts per luminaire ¹	How Wattage is Determined	Total number of Luminaires	Total Watts
	Percent Power Reduction ²		Total Pre-alteration Wattage			Total Post-alteration Wattage					

¹ FOOTNOTE: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)/§160.5(b)1

² Must be at least 40% to comply with §141.0(b)2l(iii)/§180.2(b)4biv

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Mandatory Controls**

15	16	17	18	19
Area Description	Primary Function Area	Manual Controls §130.1(a)/§160.5(b)4A	Shut-Off Controls §130.1(c)/§160.5(b)4C	* NOTES: Controls with a * require a note in the space below explaining how compliance is achieved

M. 80% LIGHTING POWER FOR ALTERATIONS- CONTROLS EXCEPTIONS

Indoor lighting alteration spaces complying prescriptively with §141.0(b)2(i)/§180.2(b)4Bivb are included in this table to document the power reduction. If the Percent of Indoor Lighting Power Allowance exceeds 80%, the compliance status in Table C for Controls will say "DOES NOT COMPLY".

01	02	03	04	05	06	07	08	09
Area Description	Complete Building or Area Category Primary Function Area	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS			
		Area (ft²)	Allowed Density (W/ft²)	Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Total Design Watts
Total Allowance (Watts) for all Areas:					Total Design Watts for all Areas:			
Percent of Indoor Lighting Power Allowance:								

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****N. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)**

This table documents clerestories, horizontal slats or light shelves meet the requirements in §140.3(d)/§170.2(e)2B if a Power Adjustment Factor was claimed on Table P. These features must be documented on the architectural plans or where appropriate within the construction documents. This PAF also must be verified in the field with an acceptance test per Table U.

01	Compliance Strategy	
----	---------------------	--

Clerestory Fenestration

	Yes	Not Applicable	Requirement
02	<input type="checkbox"/>		Installed on East, West or South façade
03	<input type="checkbox"/>		Head height \geq 10ft above finished floor
04	<input type="checkbox"/>		Glazing height \geq 0.10 x head height
05	<input type="checkbox"/>	<input type="checkbox"/>	Operable shading on clerestory is controlled separately from other shading

Interior and Exterior Horizontal Slats

	Yes	Not Applicable	Requirement
06	<input type="checkbox"/>		Installed on East or West façade with 20-30% WWR
07	<input type="checkbox"/>		Exterior slats level or sloped downward from fenestration. Interior slats level or sloped upward from fenestration. Slats are permanently mounted and not adjustable.
08	<input type="checkbox"/>		Slats have a Projection Factor per Table 140.3-E/170.2-N Daylighting Devices and extend the entire height of the vertical fenestration and beyond each side of the window jamb by a distance \geq their horizontal projection. Slats do not need to extend beyond the jamb if they are located entirely within the fenestration rough opening or a fin is located at the jamb and extends vertically the entire height of the jamb and horizontally the entire depth of the projection.
09	<input type="checkbox"/>	<input type="checkbox"/>	Slats have a minimum Distance Factor of 0.3 calculated per §140.3(d)/§170.2(e)2Bxii
10	<input type="checkbox"/>		Slats have a minimum Visible Reflectance of 0.50 tested in accordance with ASTM E903, and are either opaque or have a maximum Visible Transmittance of 0.03 tested in accordance with ASTM E1175
11	Location of slat design in construction documents:		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Interior and Exterior Light Shelves**

	Yes	Not Applicable	Requirement
12	<input type="checkbox"/>	<input type="checkbox"/>	Where there is vertical fenestration area below the light shelf, both interior and exterior light shelves shall be installed.
13	<input type="checkbox"/>		Light shelves installed adjacent to clerestory fenestration on south façade with > 30% WWR and with a head height <= 1ft below the finished ceiling.
14	<input type="checkbox"/>		Exterior shelves level or sloped downward from fenestration. Interior shelves level or sloped upward from fenestration.
15	<input type="checkbox"/>		Shelves have a Projection Factor per Table 140.3-D Daylighting Devices and extend beyond each side of the window jamb by a distance >= their horizontal projection.
16	<input type="checkbox"/>	<input type="checkbox"/>	Shelves have a minimum Distance Factor of 0.3 calculated per §140.3(d)/§170.2(e)2Bxii
17	<input type="checkbox"/>		Shelves have a top surface with a minimum Visible Reflectance of 0.50 tested in accordance with ASTM E903, or an exterior light shelf installed > 2ft below the clerestory sill.
18	Location of light shelf design in construction documents:		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****O. DWELLING UNIT LIGHTING**

This table documents compliance with mandatory requirements for dwelling unit indoor lighting per §160.5(a) and §180.2(b)4A for alterations. Lighting systems in common use areas providing shared provisions for living, eating, cooking, or sanitation to dwelling units that would otherwise lack these provisions may document compliance with §160.5(a) in this table or may document compliance with lighting for nonresidential occupancies in other tables of this form.

01	Indicate lighting and electrical components included in multifamily dwelling units:	<input type="checkbox"/> Luminaires	<input type="checkbox"/> Blank Electrical Boxes
----	---	-------------------------------------	---

Luminaires

	Yes	Not Applicable	Requirement
02	<input type="checkbox"/>		All installed luminaires and light sources shall comply with Reference Joint Appendix JA8 and shall be certified and marked as required by JA8 EXCEPT lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, garage door openers, and ceiling fan kits that are subject to the DOE's Appliance and Equipment Standards Program; lighting with an efficacy of 45 lumens per watt or greater and located internal to drawers, cabinetry, and linen closets ; or light sources below: <ul style="list-style-type: none">- LED light sources installed outdoors- inseparable solid state lighting (SSL) luminaires containing colored light sources that are installed to provide decorative lighting- high intensity discharge (HID) light sources including pulse start metal halide and high pressure sodium light sources- luminaires with hardwired high frequency generator and induction lamp
03	<input type="checkbox"/>	<input type="checkbox"/>	Recessed Downlight Luminaires other than those marked for use in fire-rated installations and other than recessed luminaires installed in non-insulated ceilings shall meet all of the following requirements: <ul style="list-style-type: none">- Shall not contain screw base lamp sockets; and- Have a label that certifies the luminaire is airtight with air leakage less than 2.0 cfm at 75 Pascals when tested in accordance with ASTM E283. An exhaust fan housing with integral light shall not be required to be certified airtight; and- Be sealed with a gasket or caulk between the luminaire housing and ceiling, and have all air leak paths between conditioned and unconditioned spaces sealed with a gasket or caulk, or be installed per manufacturer's instructions to maintain airtightness between the luminaire housing and ceiling; and- Meet the clearance and installation requirements of California Electrical Code Article 410.116 for recessed luminaires.
04	<input type="checkbox"/>	<input type="checkbox"/>	Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources in enclosed or recessed luminaires shall be in compliance with the JA8 elevated temperature requirements, including marking requirements.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Lighting Controls**

	Yes	Not Applicable	Requirement
05	<input type="checkbox"/>		Lighting shall have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF. Ceiling fans may provide control of integrated lighting via a remote control.
06	<input type="checkbox"/>		Lighting controls shall comply with the applicable requirements of Section 110.9.
07	<input type="checkbox"/>	<input type="checkbox"/>	An Energy Management Control System (EMCS) or a multiscene programmable controller may be used to comply with dimming, occupancy, and lighting control requirements in Section 160.5(a)2 if it provides the functionality of the specified controls in accordance with Section 110.9, and the physical controls specified in in Section 160.5(a)2A. No controls shall bypass control functions of a dimmer, occupant sensor, or vacancy sensor where the dimmer or sensor has been installed to comply with Section 160.5(a)2.
08	<input type="checkbox"/>		In bathrooms, garages, laundry rooms, utility rooms, and walk-in closets, at least one installed luminaire shall be controlled by an occupancy or vacancy sensor providing automatic-off functionality.
09	<input type="checkbox"/>	<input type="checkbox"/>	For lighting internal to drawers and cabinetry with opaque fronts or doors, controls that turn light off when the drawer or door is closed shall be provided.
10	<input type="checkbox"/>		Lighting in habitable spaces, including living rooms, dining rooms, kitchens, and bedrooms, EXCEPT lighting integral to kitchen range hoods and bathroom exhaust fans, shall have readily accessible wall-mounted dimming controls that allow the lighting to be manually adjusted up and down OR luminaires must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Forward phase cut dimmers controlling LED light sources shall comply with NEMA SSL 7A. Ceiling fans may provide control of integrated lighting via a remote control. Lighting controlled by automatic-off controls and located internal to drawers, cabinetry with opaque fronts, or cabinetry with doors does not need to provide dimming controls.
11	<input type="checkbox"/>		Lighting integrated with the exhaust fans shall be controlled independently from the fans. The following shall be controlled separately from ceiling-installed lighting such that one can be turned on without turning on the other: <ul style="list-style-type: none"> - Undercabinet lighting - Undershelf lighting - Interior lighting of display cabinets - Switched outlets

Blank Electrical Boxes

	Yes	Not Applicable	Requirement
12	<input type="checkbox"/>		The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device shall be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, low voltage wiring or fan speed control.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****P. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>

Q. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-03-A - Must be submitted for daylight responsive controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 1 of 7)

A. GENERAL INFORMATION

1. Enter the City the project is located in.
2. Enter the Climate Zone.
3. Select the applicable Occupancy Types within the Project.
4. Enter the Total Conditioned Floor Area.
5. Enter the Total Unconditioned Floor Area.
6. Enter the Number of Stories Above Grade.

B. PROJECT SCOPE

1. Select the Scope of Work.
2. Calculation Method: Select from dropdown.
3. Enter the Area.
4. Calculation Method: Select from dropdown.
5. Enter the Area.

C. COMPLIANCE RESULTS

1. Results in this table are automatically calculated from data input and calculations in Tables H through Q.

D. EXCEPTIONAL CONDITIONS

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. INDOOR LIGHTING FIXTURE SCHEDULE

1. Enter the Name or Item Tag.
2. Enter the Complete Luminaire Description.
3. Check if it is a Modular (Track) Fixture.
4. Small Aperture & Color Change: Select from dropdown.
5. Enter the Watts per Luminaire.
6. How Wattage is Determined: Select from dropdown.
7. Enter the Total Number of Luminaires.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 2 of 7)

8. Check if the Luminaire is Excluded per §140.6(a)3/§170.2(e)2C.
9. This field is filled out automatically.
10. This is a Pass or Fail checkbox for the field inspector.

G. MODULAR LIGHTING SYSTEMS

1. This field is filled out automatically.
2. This field is filled out automatically.
3. Check the applicable Calculation Method.

H. INDOOR LIGHTING CONTROLS

1. Mandatory Demand Response: Select from dropdown.
2. Shut-off Controls: Select from dropdown.
3. This is a Pass or Fail checkbox for the field inspector.
4. Enter the Area Description.
5. Complete Building or Area Category Primary Function Area: Select from dropdown.
6. Manual Area Controls: Select from dropdown.
7. Multi-Level Controls: Select from dropdown.
8. Shut-off Controls: Select from dropdown.
9. Primary/Skylit Daylighting: Select from dropdown.
10. Secondary Daylighting: Select from dropdown.
11. Check if using Interlocked Systems.
12. This is a Pass or Fail checkbox for the field inspector.
13. Enter the Plan Sheet Showing Daylit Zones.

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

1. Enter the Area Description.
2. Complete Building or Area Category Primary Function Area: Select from dropdown.
3. This field is filled out automatically.
4. Enter the Area.
5. This field is filled out automatically.
6. Select if this area is taking any Additional Allowance/Adjustments.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 3 of 7)

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

1. This field is filled out automatically.
2. This field is filled out automatically.
3. Applicable Qualifying Lighting System: Select from dropdown.
4. This field is filled out automatically.
5. Enter the Lighting Area, Length or ATM/ Mirror.
6. This field is filled out automatically.
7. Luminaire Name or Item Tag: Select from dropdown.
8. This field is filled out automatically.
9. Enter the Number of Luminaires.
10. This field is filled out automatically.
11. This field is filled out automatically.

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

Check which Use it or Lose it Allowances are being used.

1. This field is filled out automatically.
2. Enter the Area Description.
3. Primary Function Area: Select from dropdown.
4. This field is filled out automatically.
5. Room Configuration: Select from dropdown.
6. This field is filled out automatically.
7. Enter the Area.
8. This field is filled out automatically.
9. Check if area is using a PAF.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

1. Area Description: Select from dropdown.
2. Enter the Wall Display Length.
3. This field is filled out automatically.
4. This field is filled out automatically.
5. Luminaire Name or Item Tag: Select from dropdown.
6. Mounting Height: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 4 of 7)

7. This field is filled out automatically.
8. This field is filled out automatically.
9. Enter the Number of Luminaires.
10. This field is filled out automatically.
11. This field is filled out automatically.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

1. Area Description: Select from dropdown.
2. Enter the Area.
3. This field is filled out automatically.
4. This field is filled out automatically.
5. Luminaire Name or Item Tag: Select from dropdown.
6. Mounting Height: Select from dropdown.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Enter the Number of Luminaires.
10. This field is filled out automatically.
11. This field is filled out automatically.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE/SPECIAL EFFECTS

1. Area Description: Select from dropdown.
2. Enter the Area.
3. This field is filled out automatically.
4. This field is filled out automatically.
5. Luminaire Name or Item Tag: Select from dropdown.
6. This field is filled out automatically.
7. Enter the Number of Luminaires.
8. This field is filled out automatically.
9. This field is filled out automatically.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 5 of 7)

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

1. Area Description: Select from dropdown.
2. Enter the Description of Display Case.
3. Enter the Area.
4. This field is filled out automatically.
5. This field is filled out automatically.
6. Enter the Area of Display Case.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Luminaire Name or Item Tag: Select from dropdown.
10. This field is filled out automatically.
11. Enter the Number of Luminaires.
12. This field is filled out automatically.
13. This field is filled out automatically.

P. Power Adjustment: Lighting Control Credit (PAF)

1. This field is filled out automatically.
2. Select the applicable PAF's.
3. Luminaire Name or Item Tag: Select from dropdown.
4. This field is filled out automatically.
5. Enter the Number of Luminaires.
6. This field is filled out automatically.
7. This field is filled out automatically.
8. Check that spaces applying PAF 5, 6, or 7 include a daylight design meeting requirement in §140.3(d).
9. This field is filled out automatically.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

1. Check that the alteration scope includes a one-for-one luminaire alteration within a building or tenant space of 5,000 ft² or less.
2. Check that at least one complete floor or complete tenant space includes a one-for-one luminaire alteration of 50 or less luminaires, per annum. Enter the applicable spaces.
3. Enter the Name or Item Tag
4. Enter the Complete Luminaire Description.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
Indoor Lighting	(Page 6 of 7)

5. Enter the Watts per luminaire.
6. How Wattage is Determined: Select from dropdown.
7. Enter the Total Number of Luminaires.
8. This field is filled out automatically.
9. Enter the Name or Item Tag.
10. Enter the Complete Luminaire Description.
11. Enter the Watts per Luminaires
12. How Wattage is Determined: Select from dropdown.
13. This field is filled out automatically.
14. This field is filled out automatically.
15. Enter the Area Description.
16. Primary Function Area: Select from dropdown.
17. Manual Area Controls: Select from dropdown.
18. Shut-Off Controls: Select from dropdown.
19. Enter any Notes for Controls with an asterisk.

R. 80% LIGHTING POWER FOR ALTERATIONS – CONTROLS EXCEPTIONS

1. Enter the Area Description.
2. Complete Building or Area Category Primary Function Area: Select from dropdown.
3. Enter the Area
4. This field is filled out automatically.
5. This field is filled out automatically.
6. Luminaire Name or Item Tag: Select from dropdown.
7. This field is filled out automatically.
8. Enter the Number of Luminaires.
9. This field is filled out automatically.

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR

1. Compliance Strategy: Select from dropdown.
- 2-10. Select if the project meets the listed requirements.
11. Enter the Location of slat design in construction documents.
- 12-17. Select if the project meets the listed requirements.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTI-01-E
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18. Enter the Location of light shelf design in construction documents.

T. DWELLING UNIT LIGHTING

1. Select lighting and electrical components included in multifamily dwelling units.
- 2-14. Select if the project meets the listed requirements.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies in low-rise multifamily mixed-use buildings. It is also used to document compliance with requirements in §160.5, §170.2(e)6, §180.1(a) and §180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for low-rise multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Illuminated Hardscape Area (ft ²)			
02	Climate Zone						
03	Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):						
<input type="checkbox"/>	LZ-0: Very Low- Undeveloped Parkland	<input type="checkbox"/>	LZ-2: Moderate- Urban Clusters	<input type="checkbox"/>	LZ-4: High-Must be reviewed by CA Energy Commission for Approval		
<input type="checkbox"/>	LZ-1: Low- Rural Areas	<input type="checkbox"/>	LZ-3: Moderately High- Urban Areas				
05	Occupancy Types within Project:						
<input type="checkbox"/>	Office	<input type="checkbox"/>	Low-Rise Residential Multifamily/ MF Mixed-use < 4 stories (includes dormitory, senior living)	<input type="checkbox"/>	School	<input type="checkbox"/>	Warehouse
<input type="checkbox"/>	Parking Garage	<input type="checkbox"/>	Retail	<input type="checkbox"/>	Hotel/Motel	<input type="checkbox"/>	Healthcare

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7/§170.2(e)6 or §141.0(b)2L/§180.2(b)4Bv for alterations.

My project consists of:											
01					02						
<input type="checkbox"/> New Lighting System					Must Comply with Allowances from §140.7/§170.2(e)6.						
<input type="checkbox"/> Altered Lighting System					Is your alteration increasing the connected lighting load (Watts)?					<input type="checkbox"/> Yes	<input type="checkbox"/> No
03			04		05						
% of Existing Luminaires Being Altered ¹			Sum Total of Luminaires Being Added or Altered		Calculation Method						
<input type="checkbox"/> < 10%	<input type="checkbox"/> ≥ 10% and < 50%	<input type="checkbox"/> ≥ 50%									

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

¹ FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables G through N.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

Calculation of Total Allowed Lighting Power (Watts) §140.7/§170.2(e)6 or §141.0(b)2L/§180.2(b)4Bv										Compliance Results					
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1/ §170.2(e)6 (See Table I)	+	Per Application §140.7(d)2/ §170.2(e)6 (See Table J)	+	Sales Frontage §140.7(d)2 (See Table K)	+	Ornamental §140.7(d)2/ §170.2(e)6 (See Table L)	+	Per Specific Area §140.7(d)2/ §170.2(e)6 (See Table M)	OR	Existing Power Allowance §141.0(b)2L/ §180.2(b)4Bv (See Table N)	=	Total Allowed (Watts)	≥	Total Actual (Watts) (See Table F)	07 Must be ≥ 08
	+		+		+		+		OR		=		≥		
Shielding Compliance (See Table G for Details)															
Controls Compliance (See Table H for Details)															

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****D. EXCEPTIONAL CONDITIONS**

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with §140.7/§170.2(e)6 all luminaires being installed, and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L, only new luminaires being installed, and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining, or existing luminaires being moved are not included).

Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire ^{1, 2}	How Wattage is Determined	Total Number Luminaires ²	Luminaire Status ³	Excluded per §140.7(a)/ §170.2(e)6A	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b)/§160.5(c)1 ⁴	Field Inspector	
		<input type="checkbox"/> Linear					<input type="checkbox"/>			<input type="checkbox"/> Pass	<input type="checkbox"/> Fail
Total Designed Watts:											

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

¹ FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)/§160.5(b).

² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires.

³ Select “New” for new luminaires in a new outdoor lighting project or for added luminaires in an alteration. Select “Altered” for replacement luminaires in an alteration. Select “Existing to Remain” for existing luminaires within the project scope that are not being altered and are remaining. Select “Existing Reinstalled” for existing luminaires which are being removed and reinstalled as part of the project scope

⁴ Compliance with mandatory shielding requirements is required for luminaires with initial lumen output $\geq 6,200$ unless exempted by §130.2(b)/§160.5(c).

G. SHIELDING REQUIREMENTS (BUG)

This table includes fixtures of $\geq 6,200$ initial luminaire lumens indicated on Table F as needing to comply with Shielding Requirements. Maximum lumens can be found in Title 24, Part 11, Section 5.106.8.

01	02	03	04	05	06	07	08	09	10	11	12	
Name or Item Tag	Complete Luminaire Description	Backlight Rating ²			Uplight Rating ²			Glare Rating ²			Field Inspector	
		Mounting Height from Property Line ¹	Max Allowable Backlight Rating ³	Backlight Rating Per Design	Lighting Type	Max Allowable Uplight Rating ³	Uplight Rating Per Design	Mounting Height from Property Line ¹	Max Allowable Glare Rating ³	Glare Rating Per Design	Pass	Fail
											<input type="checkbox"/>	<input type="checkbox"/>

¹ FOOTNOTES: Mounting Height is labeled MH in this table

² Authority having jurisdiction may ask for luminaire cut sheets or other documentation to confirm luminaire type, backlight, uplight, and glare ratings used for compliance per §130.2(b)/§160.5(c).

³ BUG ratings with a lower number than the 'Max Allowable' are compliant. Ex. If Max Allowable is Bug Rating is B4, then B0, B1, B2, B3 and B4 are all compliant.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****H. OUTDOOR LIGHTING CONTROLS**

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.

Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit.

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Service Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off	Auto-Schedule	Motion Sensor	Field Inspector	
	§130.2(c)1/§160.5(c)	§130.2(c)2/§160.5(c)	§130.2(c)3/§160.5(c)	Pass	Fail
				<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Outdoor Lighting Controlled from Inside Multifamily Dwelling Units**

This table documents compliance with mandatory requirements for outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit per §160.5(a). Outdoor lighting systems in common use areas providing shared provisions for living, eating, cooking, or sanitation to dwelling units that would otherwise lack these provisions may document compliance with §160.5(a) in this table or may document compliance with outdoor lighting for nonresidential occupancies.

01	02	03	04
Space Name	Compliant Light Sources ^{1,2} §160.5(a)1	Mandatory Controls §160.5(a) Shut-Off	Recessed Downlights ³ §160.5(a)1C
			i. Shall not contain screw base lamp sockets; and
			ii. Have a label that certifies the luminaire is airtight with air leakage less than 2.0 cfm at 75 Pascals when tested in accordance with ASTM E283. An exhaust fan housing with integral light shall not be required to be certified airtight; and
			iii. Be sealed with a gasket or caulk between the luminaire housing and ceiling and have all air leak paths between conditioned and unconditioned spaces sealed with a gasket or caulk, or be installed per manufacturer's instructions to maintain airtightness between the luminaire housing and ceiling; and
			iv. Meet the clearance and installation requirements of California Electrical Code Section 410.116 for recessed luminaires; and
			v. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, shall not be installed in enclosed or recessed luminaires.

¹ FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.

² Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.

³ Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. LIGHTING POWER ALLOWANCE (per §140.7/170.2(e))**

This table includes areas using the allowance calculations per §140.7/§170.2(e)6. General Hardscape Allowance is per Table 140.7-A/ Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B/Table 170.2-S. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

01				
<input type="checkbox"/> General Hardscape Allowance	"Use it or lose it" Allowances (select all that apply)			
	<input type="checkbox"/> Per Application	<input type="checkbox"/> Sales Frontage	<input type="checkbox"/> Ornamental	<input type="checkbox"/> Per Specific Area
Table I (below)	Table J	Table K	Table L	Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft ²)	Allowed Density (W/ft ²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
¹ FOOTNOTES: Number of entrances to parking areas, trail heads, fee payment kiosks, outhouses and toilet facilities on site where lighting is within project scope.				Initial Wattage Allowance for Entire Site (Watts):			
				Instances of Initial Wattage Allowance (LZ 0 only)¹			
				Total General Hardscape Allowance (Watts):			<i>sum of col09+(IWA*instances)</i>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Calculated General Hardscape Lighting Power Allowance per Table 170.2-R for Multifamily & Multifamily Mixed-Use**

02	03	04	05
Area Description	Area Wattage Allowance (AWA)		
	Illuminated Area (ft ²)	Allowed Density (W/ft ²)	Area Allowance (Watts)
Initial Wattage Allowance for Entire Site (Watts):			
Instances of Initial Wattage Allowance (LZ 0 only) ¹			
Total General Hardscape Allowance (Watts):			sum of col05 (AWA) + (G22 (IWA)*instances)

¹ FOOTNOTES: Number of entrances to parking areas, trail heads, fee payment kiosks, outhouses and toilet facilities on site where lighting is within project scope.

J. LIGHTING ALLOWANCE: PER APPLICATION

This table includes areas using the wattage allowance per application from Table-140.7-B/Table 170.2-S.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B ¹	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location (Watts) ²	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ³	# of Luminaires ³	Design Watts	
Total Design Watts for this Area:									
Total Allowance (Watts) All Areas:									

¹ FOOTNOTES: Primary entrance applications are only available for senior care facilities, healthcare facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.

² The Allowance per Location for ATMs is 100W for the first ATM and 35W for each additional per Table 140.7-B/Table 170.2-S.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

³ For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This table includes areas using the wattage allowance for Outdoor Sales Frontage from Table-140.7-B. This allowance may be used for one or two frontage side(s) per site.

01	02	03	04	05	06	07	08	09
Area Description	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
	Linear ft. of Sales Frontage (lf)	Allowed Density (W/lf)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ¹	# of Luminaires ¹	Design Watts	
Total Design Watts for this Area:								
Total Allowance (Watts) All Areas:								

¹ FOOTNOTES: For luminaires indicated in Table F as linear, wattage in column 06 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 07 instead of number of luminaires.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This table includes all ornamental luminaires within the scope of the permit application to calculate the allowance per Table 140.7-B/Table 170.2-S.

01	02	03	04	05	06	07	08	09
Area Description	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
	Illuminated Area (ft ²)	Allowed Density (W/ft ²)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ^{1,2}	# of Luminaires ²	Design Watts	
Total Design Watts for this Area:								
Total Allowance (Watts) Ornamental:								

¹ FOOTNOTES: Luminaires qualifying for this allowance shall be rated < 50W and shall be post-top luminaires, lanterns, pendants or chandeliers.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

² For luminaires indicated in Table F as linear, wattage in column 06 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 07 instead of number of luminaires.

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This table includes areas using the wattage allowance per specific area type from Table 140.7-B/Table 170.2-S. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

01	02	03	04	05	06	07	08	09	10
Area Description	Specific Area Type per Table 140.7-B	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		Specific Area (ft ²) ¹	Allowed Density (W/ft ²)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ²	# of Luminaires ²	Design Watts	
						Total Design Watts for this Area:			
						Total Allowance (Watts) All Areas:			

¹ FOOTNOTES: See Table 140.7-B/Table 170.2-S for the rules for calculating the specific areas (ft²) for these additional lighting allowances.

² For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)**

This table includes all existing luminaires being replaced to establish the lighting power allowance per §141.0(b)2Lii, §141.0(b)2Liii or §180.2(b)4Bvb and §180.2(b)4Bvc. Existing luminaires that are remaining or being moved should NOT be included.

Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

01	02	03	04	05	06	07	
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How Wattage is Determined	# of Luminaires Being Replaced ²	Existing Watts	Field Inspector	
						Pass	Fail
						<input type="checkbox"/>	<input type="checkbox"/>
Total Existing Watts:							
Allowance per §141.0(b)2L/§180.2(b)4Bv:							

Existing Conditions Wattage:

01	02	03	04	05	06	07	
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How Wattage is Determined	# of Luminaires Being Replaced ²	Existing Watts	Field Inspector	
						Pass	Fail
						<input type="checkbox"/>	<input type="checkbox"/>
Total Existing Watts:							
Allowance per §141.0(b)2L/§180.2(b)4Bv:							

** NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.*

EX: Photograph of existing luminaire

¹ FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)/§160.5(b).

² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-LTO-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:

<http://www.energy.ca.gov/title24/attcp/providers.html>.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 1 of 6)

A. General Information

1. Enter the City the project is located in.
2. Enter the Climate Zone.
3. Select the applicable Outdoor Lighting Zone.
4. Enter the Total Illuminated Hardscape Area.
5. Select the applicable Occupancy Types within the Project.

B. Project Scope

1. Select whether the Lighting System is New or Altered.
2. Is your alteration increasing the connected lighting load (Watts): Select Yes or No.
3. Select the percent of existing luminaires being altered.
4. Enter the sum total of luminaires being added or altered
5. Calculation Method: Select from dropdown.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables G through N.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

Enter any notes or comments for the AHJ.

F. Outdoor Lighting Schedule

1. Enter the Name or Item Tag.
2. Enter a Description of the Luminaire and select if it is Linear.
3. Enter the Watts per Luminaire.
4. How Wattage is Determined: Select from dropdown.
5. Enter the number of Luminaires
6. Luminaire Status: Select from dropdown
7. Check the box if luminaire is excluded from §140.7(a)/§170.2(e)6A
8. This field is filled out automatically.
9. Cutoff Req. $\geq 6,200$ initial lumen output: Select from dropdown.
10. This is a Pass or Fail checkbox for field inspector.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 2 of 6)

G. Shielding Requirement (BUG)

1. This field is filled out automatically
2. This field is filled out automatically
3. Mounting Height from Property Line: Select from dropdown
4. This field is filled out automatically.
5. Enter the Backlight Rating per Design.
6. Lighting Type: Select from dropdown.
7. This field is filled out automatically.
8. Enter the Uplight Rating per Design.
9. Mounting Height from Property Line: Select from dropdown
10. This field is filled out automatically.
11. Enter the Glare Rating per Design.
12. This is a Pass or Fail checkbox for the field inspector.

H. Outdoor Lighting Controls

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Service Areas in Multifamily Buildings

1. Enter the Area Description
2. Shut-Off Controls: Select from dropdown
3. Auto-schedule controls: Select from dropdown
4. Motion Sensor controls: Select from dropdown.
5. This is a Pass or Fail checkbox for the field inspector.

Outdoor Lighting Controlled from Inside Multifamily Dwelling Units

1. Enter the Space Name.
2. Compliant Light Sources: Select from dropdown.
3. Shut-Off Controls: Select from dropdown.
4. Recessed Downlights static text

I. Lighting Power Allowance

1. Select the applicable “Use it or lose it” Allowances.

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

2. Enter the Area Description.
3. Enter the AWA Illuminated Area.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 3 of 6)

4. This field is filled out automatically.
5. This field is filled out automatically.
6. Enter the LWA Perimeter Length.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. This field is filled out automatically.

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A 170.2-R for Multifamily & Multifamily Mixed-Use

2. Enter the Area Description.
3. Enter the AWA Illuminated Area.
4. This field is filled out automatically.
5. This field is filled out automatically.

J. Lighting Allowance: Per Application

1. Enter the Area Description.
2. Application per Table 140.7-B: Select from dropdown.
3. Enter the Number of Locations.
4. This field is filled out automatically.
5. This field is filled out automatically.
6. Luminaire Name or Item Tag: Select from dropdown.
7. This field is filled out automatically.
8. Enter the Number of Luminaires
9. This field is filled out automatically.
10. This field is filled out automatically.

K. Lighting Allowance: Sales Frontage

1. Enter the Area Description.
2. Enter the Linear feet of Sales Frontage.
3. This field is filled out automatically.
4. This field is filled out automatically.
5. Luminaire Name or Item Tag: Select from dropdown.
6. This field is filled out automatically.
7. Enter the Number of Luminaires.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 4 of 6)

8. This field is filled out automatically.
9. This field is filled out automatically.

L. Lighting Allowance: Ornamental

1. Enter the Area Description.
2. This field is filled out automatically.
3. This field is filled out automatically.
4. This field is filled out automatically.
5. Luminaire Name or Item Tag: Select from dropdown.
6. This field is filled out automatically.
7. Enter the Number of luminaires.
8. This field is filled out automatically.
9. This field is filled out automatically.

M. Lighting Allowance: Per Specific Area

1. Enter the Area Description.
2. Specific Area Type per Table 140.7-B: Select from dropdown.
3. Enter the Specific Area
4. This field is filled out automatically.
5. This field is filled out automatically.
6. Luminaire Name or Item Tag: Select from dropdown
7. This field is filled out automatically.
8. Enter the Number of luminaires.
9. This field is filled out automatically.
10. This field is filled out automatically.

N. Existing Conditions Power Allowance (alterations only)

1. Enter the Name or Item Tag.
2. Enter the Complete Luminaire Description.
3. Enter the Watts per Luminaire.
4. How Wattage is Determined?: Select from dropdown.
5. Enter the Number of luminaires being replaced
6. This field is filled out automatically.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 5 of 6)

7. This is a Pass or Fail checkbox for the field inspector.

O. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

P. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTO-01-E
Outdoor Lighting	(Page 6 of 6)

FOR INFORMATION AND DATA COLLECTION
ONLY. NOT VALID UNTIL REGISTERED
WITH AN ECC PROVIDER.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with requirements in §110.9, §110.12, §130.0/§160.5, §130.3/§160.5(d), §140.8/§170.2(e), and §141.0(b)2M/§180.2(b)4Bvi for sign lighting scopes in low-rise multifamily and mixed-use buildings using the prescriptive path. Exit signs and traffic signs are not required to comply with prescriptive requirements per exceptions to §140.8/§170.2(e) and do not need to complete this compliance document.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. GENERAL INFORMATION

01	Project Location (city)	
02	Climate Zone	
03	Occupancy Types within Project:	<input type="checkbox"/> Healthcare Facility
		<input type="checkbox"/> Low-Rise Residential Multifamily/ MF Mixed-use < 4 stories (includes dormitory, senior living)

B. PROJECT SCOPE

This table includes illuminated signs that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.8/§170.2(e) or §141.0(b)2M/§180.2(b)4Bvi for alterations. Exit signs and traffic signs are not required to comply with prescriptive requirements per exceptions to §140.8/§170.2(e) and do not need to complete this compliance document.

01	02	03	04	05
Name or Item Tag	Complete Sign Description	Sign Status ¹	Sign Type	Compliance Method

¹ FOOTNOTE: Sign alterations that increase the connected lighting load, replace and rewire more than 50% of the ballasts, or relocate the sign to a different location must comply with §140.8/§170.2(e). See §141.0(b)2M/§180.2(b)4Bvi for more details

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Results in this table are automatically calculated from data input and calculations in Tables B through H.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

01	02	03	≥	04	OR	05	OR	06
Name or Item Tag	Complete Sign Description	Total Allowed (Watts)		Total Designed (Watts)		Compliant Light Sources		Compliance Results
(See Table B)	(See Table B)	(See Table F)		(See Table F)		(See Table G)		
			≥		OR	Yes/No	OR	COMPLIES or DOES NOT COMPLY
Controls Compliance (See Table F/G/H for Details)								"COMPLIES with Exceptional Conditions" or "COMPLIES" or "DOES NOT COMPLY"

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

--

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. MAXIMUM ALLOWED LIGHTING POWER AND CONTROLS**

This table includes illuminated signs using the Maximum Allowed Lighting Power compliance method per §140.8(a)/§170.2(e) as indicated on Table B of this compliance document. It also demonstrates compliance with mandatory controls requirements from §130.3/§160.5(d) by indicating control types for each sign.

01	02	03	04	05	06	07	08			09	
Name or Item Tag	Complete Sign Description	Illumination Method	Sign Area (ft ²)	Allowed Density (W/ft ²)	Allowance (Watts)	Design Watts	Mandatory Controls			Field Inspector	
							Shut-Off	Dimming	Demand Response ¹	Pass	Fail
										<input type="checkbox"/>	<input type="checkbox"/>
		10	11		12	13		14			
		Luminaire Name or Item Tag	Complete Luminaire Description		Watts per Luminaire	How Wattage is Determined		Total number luminaires			

* NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.

EX: Sign within tunnel illuminated day & night; EXCEPTION to §130.3(a)2A.

¹ FOOTNOTES: Demand response controls are only required for an Electronic Message Center having a new connected lighting power load greater than 15 kW per §110.12(d).

G. LIGHT SOURCES AND CONTROLS

This table includes illuminated signs using the Alternate Lighting Sources compliance method per §140.8(b)/§170.2(e) as indicated on Table B of this compliance document. It also demonstrates compliance with mandatory controls requirements from §130.3/§160.5(d) by indicating control types for each sign.

01	02	03	04			05	
Name or Item Tag	Complete Sign Description	Compliant Light Sources ^{1,2}	Mandatory Controls			Field Inspector	
			Shut-Off	Dimming	Demand Response ³	Pass	Fail
						<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

¹ FOOTNOTE: Dropdown choices have been abbreviated, please refer to §140.8(b)/§170.2(e) to confirm compliance with the specific light source technologies listed.

² Authority having jurisdiction may ask for cutsheets to confirm compliance of light source.

³ Demand response controls are only required for an Electronic Message Center having a new connected lighting power load greater than 15 kW per §110.12(d).

H. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-LTS-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>

I. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to sign lighting requirements.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTS-01-E
Sign Lighting	(Page 1 of 2)

A. General Info

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Select the applicable Occupancy Types within the Project.

B. Project Scope

1. Enter the Name or Item Tag.
2. Enter a Complete Sign Description.
3. Sign Status: Select from dropdown.
4. Sign Type: Select from dropdown.
5. Compliance Method: Select from dropdown.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through H.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. Maximum Allowed Lighting Power and Controls

1. This field is filled out automatically
2. This field is filled out automatically
3. Illumination Method: Select from dropdown.
4. Enter the Sign Area.
5. This field is filled out automatically.
6. This field is filled out automatically.
7. Enter the Design Watts.
8. Shut-Off Controls: Select from dropdown.
Dimming Controls: Select from dropdown.
Demand Response Controls: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-LTS-01-E
Sign Lighting	(Page 2 of 2)

9. This is a Pass or Fail checkbox for the field inspector.
10. Enter the Luminaire Name or Item Tag.
11. Enter the Complete Luminaire Description.
12. Enter the Watts per Luminaire.
13. How Wattage is Determined: Select from dropdown.
14. Enter the Total number of Luminaires.

G. Light Sources and Controls

1. This field is filled out automatically
2. This field is filled out automatically
3. Enter the Compliant Light Sources
4. Shut-Off Controls: Select from dropdown.
Dimming Controls: Select from dropdown.
Demand Response Controls: Select from dropdown.
5. This is a Pass or Fail checkbox for the field inspector.

H. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

I. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLAINE**

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area	
02	Climate Zone		05	Total Unconditioned Floor Area	
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	
•	Office	• Retail	•	Warehouse	• Hotel/Motel
•	Low-Rise Residential	• Commercial	•	Healthcare Facility	• School
•	Auditorium	• Library	•	Relocatable School Building	• Theater
•	Classroom	• Gymnasium	•	Grocery Store	• Data Center
•	Restaurant/Commercial Kitchen		•	Religious Facility	• Financial Institution
					• Support Areas
					• Sports Arena
					• Convention Center
					• All Others

B. PROJECT SCOPE

This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, 170.2(b) or §141.0(b)2 and 180.2(b)2 for alterations.

My project consists of (check all that apply)

01		02		03	
Air System(s)		Wet System Components		Dry System Components	
<input type="checkbox"/>	Heating Air System	<input type="checkbox"/>	Water Economizer	<input type="checkbox"/>	Air Economizer
<input type="checkbox"/>	Cooling Air System	<input type="checkbox"/>	Pumps	<input type="checkbox"/>	Electric Resistance Heat
<input type="checkbox"/>	Ventilation (including DOAS, ERV, HRV systems)	<input type="checkbox"/>	System Piping	<input type="checkbox"/>	Fan Systems
Mechanical Controls		<input type="checkbox"/>	Cooling Towers	<input type="checkbox"/>	Ductwork (existing to remain, altered or new)
		<input type="checkbox"/>	Chillers	<input type="checkbox"/>	Zonal Systems/ Terminal Boxes
<input type="checkbox"/>	Mechanical Controls (existing to remain, altered or new)	<input type="checkbox"/>	Boilers		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliance for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4, §170.2(c), §141.0(b), §180.2(b) 2	AND	Pumps §140.4(k), §170.2(c)4I	AND	Fans/ Economizers §140.4(c), §140.4€, §140.4(p), §170.2(c)	AND	System Controls §110.2, §120.2, §140.4(f), §140.4(r), §170.2(c)	AND	Ventilation §120.1, §160.2	AND	Terminal Box Controls §140.4(d), §170.2(c)4B	AND	Distributio n §120.3, §120.4, §160.2, §160.3, §141.0(b) 2D, §180.2(b) 2Bii	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	AND	Yes/No	COMPLIES or "COMPLIES WITH EXCEPTIONAL CONDITIONS" or DOES NOT COMPLY
Mandatory Measures Compliance (See Table Q for Details)															COMPLIES or DOES NOT COMPLY

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****D. EXCEPTIONAL CONDITIONS**

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4 (a), §140.4(b), §170.2(c)1, §170.2(c)3, §140.4(k) or §141.0(b)2 and §180.2(b)2 for alterations.

Space Conditioning System Information

01	02	03	04	05	06	07
Name or Item Tag	Quantity	System Serving	System Status	Space Type	Utilizing Recovered Heat	Distribution System Type
					<input type="checkbox"/>	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces, unit heaters and DOAS systems)**

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category per Tables 110.2, §140.4(a)2 and §170.2(c)3ai	Equipment Type per Tables 110.2 & Title 20	Smallest Size Available ¹ §140.4(a) & §170.2(c)1	Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b), §170.2(c)1 & §170.2(c)2						
				Heating Output ^{2,3}		Cooling Output ^{2,3}			Load Calculations ^{3,4}	
				Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)

¹ FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a) and §170.2(c)1. Healthcare facilities are excepted.

² It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.

³ If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.

⁴ Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b) and §170.2(c)2.

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC), Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Size Category (Btu/h)	Heating Mode				Cooling Mode			
		Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2/ Title 20	Design Efficiency	Refrigerant Loop Heat Recovery	Efficiency Unit	Minimum Efficiency Required per Tables 110.2/ Title 20	Design Efficiency

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Dry System Equipment Efficiency (Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP) only)**

01	02	03	04	05	06	07
Name or Item Tag	Heating Mode			Cooling Mode		
	Rated Output Capacity (kBtu/h)	Minimum COP Required per Table 110.2-E	Design COP	Rated Output Capacity (kBtu/h)	Minimum EER Required per Table 110.2-E	Design EER

Boiler Efficiency and Controls

Boiler System Serving:										
<input type="checkbox"/>	25% of annual space heating is provided by on site renewable energy, site recovered energy, or heat recovery chillers									
<input type="checkbox"/>	50% or more of the design heating load is served using perimeter convective heating, and/or radiant panels									
<input type="checkbox"/>	Installed In Multifamily Building									
<input type="checkbox"/>	Boiler system added to an existing building									
01	02	03	04	05	06	07	08	09	09	10
Boiler System Serving:	Equipment Type ¹	Qty	Rated Input Capacity (Btu/h) ^{2, 3}	Rated Efficiency	Minimum Efficiency Required per §110.2	Efficiency Unit	Boiler Controls per §140.4(k) & §170.2(c)liii		High Capacity Boiler Exceptions	HVAC Hot Water Supply Temperature §120.2(l)
							Isolation Valve	Temperature Reset		
System Efficiency			Minimum System Efficiency Required per Tables 110.2/ Title 20							

¹ FOOTNOTES: Use LMCC-PLB to document compliance with domestic hot water and service water heating systems² Maximum capacity-maximum ratings per the certified unit capacity³ Includes oil-fired (residual)

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Chiller & Air To Water Heat Pump Efficiency and Controls**

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Equipment Type	Qty	Size Category ¹ (Tons)	Chiller Efficiency "Path B" Exception per §140.4(i) & §170.2(c)g	Rated Efficiencies	Efficiencies Required per §110.2 ²	Efficiency Unit	Controls per §140.4(k) & §170.2(c)l	
								Isolation Valve	Temperature Reset

¹ FOOTNOTES: Chilled water plants shall not have more than 300 tons provided by air-cooled chillers. Exceptions may apply per §140.4(j).

² Efficiency required is a minimum when "EER" or "COP" is the Efficiency Unit in column 08. It is also a minimum when "IPLV" is the unit for air-cooled, absorption, and water cooled gas engine chillers. Efficiency required is a maximum when "kW/ton" is the Efficiency Unit and when "IPLV" is the unit for water cooled electrically operated chillers.

DX-DOAS EFFICIENCY

01	02	03	04	05	06	07	08
Name or Item Tag	Equipment Type	Quantity	Energy Recovery	Rating Condition	Rated Efficiencies	Efficiency Unit	Minimum Efficiency

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Dual Fuel Heat Pump**

01	02	03	04	05	06	07	08	09	10	11
Name or Item Tag	Equipment Category	Equipment Type	Size Category (Btu/h)	Heating Mode				Cooling Mode		
				Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2/ Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2/ Title 20	Design Efficiency

Heat Rejection Equipment (Cooling Towers, Condensers, Waterside Economizers) Efficiency and Controls

01	02	03	04	05	06	07	08	09	10	11	12
Name or Item Tag	Equipment Type ¹	Qty	Rating Condition (°F)	Rated Performance	Minimum Required Performance per Table 110.2-E, §140.4(h)5 & §170.2(c)fv	Performance Unit	Fan Speed Control §140.4(h)1	Tower Flow Turndown §140.4(h)2	Fan Control in Multiple Cell Equipment §140.4(h)4	Economizer Controls §140.4(e)	Condenser Water Temp Reset Controls

¹ FOOTNOTES: Centrifugal fan open-circuit towers are not allowed for rated capacities ≥ 900 gpm at 95°F condenser water return, 85°F condenser water supply and 75°F outdoor wet-bulb temperature. Exceptions may apply per §140.4(h)4.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Electric Resistance Heating**

01	02	03	04
Name or Item Tag	Equipment Description	Output Capacity (kW)	Applicable Exception to §140.4(g) Allowing Electric Resistance Heating

Mechanical Heat Recovery

01	02	03	04	05	06	07
Name or Item Tag	Coincident Peak Cooling Load of All High Load Spaces	Design Capacity of All Mechanical Cooling Systems ²	Design Capacity of All Service Water Heating Systems ¹	Design Capacity for all space heating systems	Simultaneous Mechanical Heat Recovery	Heat Recovery Systems Shall: - Transferring the lesser of the following from spaces in cooling to spaces in heating: - 25% of the peak heat rejection of the cooling system - 25% of design capacity of all service water heating systems + design capacity of all space heating systems - Heat or preheat the service water heating to the smaller of: - 30% of the peak heat rejection of the cooling system; or - 30% of design capacity of all service water heating systems

G. PUMPS

This table is used to demonstrate compliance with Prescriptive hydronic system requirements found in §140.4(k) & §170.2(c)4I applicable to pumps < 5hp.

01	02	03	04	05	06	07	08
Name or Item Tag	Equipment Type	Qty	HP	Controls per §140.4(k) & §170.2(c)4I			
				Variable Flow	Hydronic Heat Pump Isolation	VSD on Pumps > 5HP	Differential Pressure Sensor

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****H. FAN SYSTEMS & AIR ECONOMIZERS**

This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) §140.4(m), §170.2(c)3 & §170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name:		Quantity		Fan System Status:		System Zoning		Serving Dwelling Units		Fan System Airflow (cfm)		Site Elevation		Economizer	
01	02	03	04				05	06	07	08	09	10	11		
Fan Name or Item Tag	Fan Type	Qty	Components				Airflow Through Component (%)	Water Gauge (w.g.)	Allowance		Design				
									Component Allowance	Fan Allowance ³ (watt/cfm)	Design Electrical Input Power Method	Motor Nameplate Horsepower	Design Electrical Input Power (kw)		
								Fan System Allowance ³ (kW)			Fan System Electrical Input Power (kW)				

¹ Fans serving spaces with design background noise goals below NC35

² Low-turndown single-zone VAV fan system must be capable of and configured to reduce airflow to 50 percent of design airflow and use no more than 30 percent of the design wattage at that airflow. No more than 10 percent of the design load served by the equipment shall have fixed loads.

³ Fan system allowance includes fan system base allowance

⁴ Filter pressure loss can only be counted once per fan system

⁵ Complex Fan System means a fan system that combines a single cabinet fan system with other supply fans, exhaust fans, or both

⁶ Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

⁷ FOOTNOTE: Indoor fans meeting the requirements of 140.4(a)3D shall turn off when there is no demand for heating or cooling in the space. At 66% air flow the power draw shall be no more than 51% of the fan power at full fan speed and at 33% airflow the power draw shall be no more than 12% of the fan power at full fan speed.

Dwelling Unit Fan Efficacy & Energy/Heat Recovery 170.2(C)3b

01	02	03	04	05	06	07	08	09	10	11
Fan System Name or Item Tag	Qty	System Dwelling Units	Forced Air System	System Airflow (cfm)	Design Power (kW)	Design Watts/CFM §170.2(c)3b	Maximum Watts/CFM §170.2(c)3b	ERV/HRV §170.2(c)3biv	Design Sensible Recovery/Efficiency	Required Sensible Recovery/Efficiency

Exhaust Air Heat Recovery 140.4(Q), 170.2(C)4o

01	02	03	04	05	06	07	08	09	10	11
Fan System Name	Qty	Hours of Operation Per Year	Design Supply Airflow Rate	Outdoor Airflow	% Outdoor Air at Full Design Airflow	Exemptions to Exhaust Air Heat Recovery Requirement per §140.4(q) & §170.2(c)4o	Exhaust Air Heat Recovery §140.4(q) & §170.2(c)4o	Type Of Heat Recovery Rating	Required Recovery Ratio	Energy Recovery Bypass

Dedicated Outdoor Air System (DOAS)

01	02	03	04	05	06
Name or Item Tag	Quantity	Delivered Directly To The Space	DOAS Fan Control	Multi-Zone DOAS with Cooling §140.4(p)4 & §170.2(c)4N	Multifamily DOAS

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Fan Energy Index (FEI)**

01	02	03
Name or Item Tag	FEI Exception	FEI

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09	10
System Name	System Zoning	Conditioned Floor Area Being Served (ft ²)	Thermostats §110.2(b), (c) ¹ , §120.2(a), §160.3(a)2a or §141.0(b)2E & §180.2(b)2	Shut-Off Controls §120.2€ & §160.3(a)2d	Isolation Zone Controls §120.2(g) & §160.3(a)2f	Demand Response §110.12, §120.2(b) & §160.3(a)2b	Supply Air Temp. Reset §140.4(f) & §170.2(c)4d	Window Interlocks per §140.4(n) & §170.2(c)4d	Direct Digital Control (DDC) per §110.12

¹ FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3B for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	<input type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.		
02	<input type="checkbox"/>	Check this box if the project includes Nonresidential, Hotel/Motel spaces or Multifamily Common Use Spaces	Check this box if the project includes new or altered multifamily dwelling units	<input type="checkbox"/>
03	<input type="checkbox"/>	Check the box if the project is using natural ventilation in any nonresidential spaces to meet required ventilation rates per §120.1(c)2.		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Nonresidential Hotel/ Motel and Multifamily Common Use Ventilation Systems**

04		05			06			07	
System Name:		System Design OA CFM Air Flow ¹			System Design Transfer Air CFM			Air Filtration per §120.1(c), §141.0(b)2, 160.2(c)1 and ²	
08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(c)3 ³ & §160.2(c)3					Exh. Vent. per §120.1(c)4 & §160.2(c)4		DCV or Occupant Sensor Controls per §120.1(d)3, §120.1(d)5 & §120.2(e)3 ⁶ , §160.2(c)5d, §160.2(c)5e & §160.2(c)diii	
	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of showerheads/toilets	# of people ⁵	Required Min OA CFM	Required Minimum CFM	Provided per Design CFM		
								DCV	
								Occ Sensor	
17	Total System Required Min OA CFM					18	Ventilation for this System Complies?		

¹ FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system.

² Air filtration requirements apply to the following three system types per §120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

³ Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.

⁴ See Standards Tables 120.1-A and 120.1-B.

⁵ For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.

⁶ §120.2(e)3 requires systems serving rooms that are required by §130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000ft², classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by §130.1(c).

⁷ Air classification and recirculation limitations of air shall be based on the air classification as listed in Table 120.1-A or Table 120.1-C, and in accordance with the requirements of Sections 120.1(g)1 through 4

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Multifamily Dwelling Unit Ventilation Systems**

<input type="checkbox"/>	Check the box if the system is using continuous ventilation to meet the ventilation requirements per §160.2(b)2Aivb2										
19	20	21	22	23	24	25	26		27		
Space Name or Item Tag	Mechanical Ventilation Required per §120.1(b)2 & §160.2(b)2				Ventilation per Design		Local Exhaust		Air Filtration per 120.1(c) & §160.2(b)1		
	Conditioned Floor Area (ft ²)	# bedrooms	# dwelling units	Required Min OA CFM ¹	Supply Air CFM	Exhaust CFM					
							<input type="checkbox"/>	Bathroom/Kitchen IAQ			
							<input type="checkbox"/>	Bathroom/Kitchen IAQ & Vent.			
							<input type="checkbox"/>	Kitchen Range Hood ²			
28	Is this a balanced system? ⁴				29	Meeting Outside Air Requirements?					

¹ FOOTNOTES: Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.

² Kitchen range hood will be verified per NA7.18.1 to confirm model is rated by HVI or AHAM.

³ Air filtration requirements apply to the following three system types per §120.1(b)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.

⁴ A balanced ventilation system provides ventilation airflow to each dwelling-unit at a rate equal to or greater than the required minimum rate, but not more than twenty percent greater.

K. TERMINAL BOX CONTROLS

This table is used to demonstrate compliance with prescriptive zone control requirements in §140.4(d) & §170.2(c)4B.

01	02	03	04	05	06	07	08	09	10	11	12
Zone/System/VAV Box Name or Item Tag	Zonal Control Strategy per §140.4(d)	Design			Deadband Compliance				Reheated, Recooled, Mixed Air Compliance		Complies
		Peak Primary Airflow CFM	Primary Air in Deadband CFM	Reheated Recooled Mixed Airflow CFM	Outside Air CFM	30% of Peak Primary Airflow CFM	Max Deadb and Airflow CFM	50% of Peak Primary Airflow	1 st Stage Modulates ≤95°F and Maintains DB Rate?	2 nd Stage Modulates from DB Flow to Heating Max Flow?	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****L. DISTRIBUTION (DUCTWORK and PIPING)**

This table is used to demonstrate compliance with mandatory pipe insulation requirements found in §120.3 and mandatory requirements found in §120.4(g) for duct sealing.

Mandatory Pipe Insulation									
01	<input type="checkbox"/>	Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.							
02	03	04	05	06	07	08	09	10	11
System Type	Nominal Pipe Diameter (in)	Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hr per ft ² per °F)	Insulation Mean Rating Temp. (°F)	Min. Insulation Thickness Required per Table 120.3-A (in)	Min. Insulation Thickness Required per §120.3(c)2 & §160.3(c)1dii (in)	Insulation Thickness per Design (in)	Exception to §120.3 & §160.3(c) (if applicable)	Serving Res or NR Space?

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Duct Leakage Testing**

The answers to the questions below apply to the following duct system(s):		NR/Common Use: Duct leakage testing shall not exceed ____% per NA7.5.3 required for these systems?	
		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct leakage system to outside shall not exceed 6% per RA3.1.4 required for these systems?	
		Duct leakage testing per CMC Section 603.10.1 required for these systems?	
11		The scope of the project includes only duct systems serving healthcare facilities.	
12		Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	
13		The space conditioning system serves less than 5,000 ft ² of conditioned floor area.	
14		The combined surface area of ducts located outdoors or in unconditioned spaces is more than 25% of the total surface area of the entire duct system:	
15		The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	
16		The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	
17		All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	
18		All ductwork is an extension of an existing duct system	
19		Ductwork serving individual dwelling unit	
20		< 25 ft of new or replacement space conditioning ducts installed	
21		Duct Insulation R-Value	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****M. COOLING TOWERS**

This table is used to demonstrate compliance with mandatory requirements in §110.2(e)2 for cooling towers with a rated capacity > 150 tons. This Table calculates the Maximum Achievable Cycles of Concentration using the Langelier Saturation Index (LSI) calculations per §110.2(e)2.

01	<input type="checkbox"/>	Check the box if the project is showing calculations on the plans, or attaching the calculations instead of completing this Table.											
02	03	04	05	06	07	08	09	10	11	12	13	14	15
Name or Item Tag	Design Conditions		Rated Conditions	Maximum Skin Temp (°F)	Conductivity	M- Alkalinity Excluding Galvanized Steel	M- Alkalinity Including Galvanized Steel	Calcium Hardness	Magnesium Hardness	Total Dissolved Solids	Chlorides	Sulfates	Silica
	Design GPM	Min Flow GPM	GPM/HP										
16				17					18				
Target Tower Cycles				Maximum Achievable Cycles of Concentration					Complies				

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-20-H Duct Leakage Diagnostic Test	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-21-H Duct Location Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-22-H Fan Efficacy	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-23-H Airflow Rate	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-24-H Building Envelope Air Leakage Worksheet	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-25 Refrigerant Charge Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-26-H Rated Space Conditioning System Equipment Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-27-H Indoor Air Quality and Mechanical Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-28-H Return Duct Design and Air Filter Grille Device Sizing	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-29-H Duct Surface Area Reduction; Buried Ducts Compliance Credit	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-32-H Local Mechanical Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-MCH-33-H Variable Capacity Heat Pump Compliance Credit	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE**

Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:

<http://www.energy.ca.gov/title24/attcp/providers.html>.

YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
				Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. <i>Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-04 Air Distribution Duct Leakage		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-05-A Air Economizer, DOAS, HRV, & ERV Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO ₂) concentration setpoints.		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-08-A Valve Leakage Test		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-11-A Automatic Demand Shed Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance		<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
				Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance <i>NOTE: This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance <i>NOTE: This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-18 Energy Management Control Systems		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-19 Occupancy Sensor Controls		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-20 Multi-Family Ventilation		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-21 Multi-Family Envelope Leakage		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-22-A MF Duct Leakage		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-23-A MF HRV/ERV Verification		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-MCH-24-A Cooling Tower Conductivity Controls		<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be completed by an ECC Rater and provided to the building inspector during construction. The final documents must be created by an ECC Providers registry, but drafts can be found online.

YES	NO	Form/Title	Systems To Be Field Verified	Field Inspector	
				Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-21 Duct Location Verification <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-22-H Fan Efficacy <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-23-H Airflow Rate <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-24 Enclosure Air Leakage Worksheet <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-25 Refrigerant Charge Verification <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-26-H Rated Space Conditioning System Equipment Verification <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-27 Indoor Air Quality and Mechanical Ventilation <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-28-H Return Duct Design and Air Filter Grille Device Sizing <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-29-H Duct Surface Area Reduction; Buried Ducts Compliance Credit <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-32 Local Mechanical Exhaust <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCV-MCH-33-H Variable Capacity Heat Pump Compliance Credit <i>NOTE: Must be completed by an ECC Rater</i>		<input type="checkbox"/>	<input type="checkbox"/>

In addition to the Certificates of Compliance, the Standards may also require Certificates of Verification to be submitted to the authority having jurisdiction.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

This section of the compliance documentation serves as an acknowledgement of, and a declaration that Certificates of Verification are required to be submitted for compliance. The boxes must be checked for every Certificate of Verification that applies to the job.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block:		Plan sheet or construction document location
03		04
Mandatory Measure		Plan sheet or construction document location
Heating Equipment Efficiency per §110.1b, Title 20, and federal minimums		
Cooling Equipment Efficiency per §110.1, Title 20, and federal minimums		
Furnace Standby Loss Control per §110.2(d)		
Duct Insulation per §120.4		
Heating Hot Water Equipment Efficiency per §110.1, Title 20, and federal minimums		
Cooling Chilled and Condenser Water Equipment Efficiency per §110.1		
Open and Closed Circuit Cooling Towers conductivity of flow-based controls per §110.2(e)1		
Open and Closed Circuit Cooling Towers Flow Meter with analog output per §110.2(e)3		
Open and Closed Circuit Cooling Towers Overflow Alarm per §110.2(e)4		
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per §110.2(e)5		
Pipe Insulation per §120.3(b)		
Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per §120.9		
Heat Pump with Supplementary Electric Resistance Heater Controls per §110.2(b)		
The air duct and plenum system is designed per §120.4(a)-(f)		
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2		
HVAC hot water supply temperature shall be no greater than 130F per 120.2(l)		
Ventilation accessibility requirements of 160.2(b)2xi		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
Mechanical Systems	(Page 1 of 11)

A. General Information

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Select the applicable Occupancy Types within the project.
4. Enter the total conditioned floor area of the project.
5. Enter the total unconditioned floor area of the project.
6. Enter the total number of habitable above grade stories of the project.

B. Project Scope

1. Select whether the project includes heating and/or cooling air systems and/or mechanical controls.
2. Select the wet system components included in your project.
3. Select the dry system components included in your project.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through M.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. HVAC System Summary (Dry and Wet Systems)

Space Conditioning System Information

1. Enter the Name or Item Tag.
2. Enter the quantity of the system.
3. Zone(s) that the system is serving: Select from dropdown.
4. Status of the system: Select from dropdown.
5. Space type that the system is serving: Select from dropdown.
6. Is the system utilizing recovered heat?
7. Distribution system type: Select from dropdown.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces, unit heaters and DOAS systems)

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
Mechanical Systems	(Page 2 of 11)

1. This field is filled out automatically.
2. Equipment category of the system: Select from dropdown.
3. Equipment type of the system: Select from dropdown.
4. Is the equipment the smallest size available?: Select from dropdown
5. Enter the heating output per design of the system.
6. Enter the heating output rated capacity of the system.
7. Enter the supplemental heating output of the system
8. Enter the cooling sensible output per design of the system.
9. Enter the cooling output rated capacity of the system.
10. Enter the total heating load.
11. Enter the total sensible cooling load.

Dry System Equipment Efficiency (other than package terminal air conditioners (PTAC) and package terminal heat pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

1. This field is field out automatically.
2. Size category of the system: Select from dropdown.
3. Rating condition of the system: Select from dropdown.
4. Heating efficiency unit of the system: Select from dropdown.
5. This field is filled out automatically.
6. Enter the heating design efficiency of the system.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Enter the cooling design efficiency of the system.

Dry System Equipment Efficiency (Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP) only)

1. This field is field out automatically.
2. This field is filled out automatically
3. This field is filled out automatically
4. Enter the heating mode design COP of the system.
5. This field is filled out automatically.
6. This field is filled out automatically
7. Enter the cooling mode design EER.

Boiler Efficiency and Controls

1. Enter the Name or Item Tag.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
Mechanical Systems	(Page 3 of 11)

2. Equipment type: Select from dropdown.
3. Enter the quantity of identical boilers.
4. Enter the rated input capacity.
5. Enter the rated efficiency.
6. This field is filled out automatically.
7. This field is filled out automatically.
8. Select the isolation valve control exception or indicate that it has been included in the design: Select from dropdown.
9. Select the temperature reset control exception or indicate that it has been included in the design: Select from dropdown.
10. High capacity boiler exceptions: Select from dropdown.

Chiller Efficiency and Controls

1. Enter the name or item tag of the chiller.
2. Select the equipment type: Select from dropdown.
3. Enter the quantity of identical chillers.
4. Size category in tons: Select from dropdown.
5. Chiller efficiency Path B exception: Select from dropdown.
6. Enter the rated efficiencies
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Select the isolation valve control exception or indicate that it has been included in the design: Select from dropdown.
10. Select the temperature reset control exception or indicate that it has been included in the design: Select from dropdown.

Direct-Expansion Dedicated Outdoor Air System (DX-DOAS) EFFICIENCY

1. This field is filled out automatically.
2. equipment type: Select from dropdown.
3. Enter the quantity of identical DX-DOAS systems.
4. Does the system have energy recovery?: Select from dropdown.
5. Rating condition of the system: Select from dropdown.
6. Enter the rated efficiencies.
7. This field is filled out automatically.
8. This field is filled out automatically.

Dual Fuel Heat Pump

1. This field is filled out automatically.
2. Equipment category: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
Mechanical Systems	(Page 4 of 11)

3. Equipment type: Select from dropdown.
4. Size category: Select from dropdown.
5. Select the rating condition: Select from dropdown.
6. This field is filled out automatically.
7. This field is filled out automatically.
8. Enter the design heating efficiency.
9. This field is filled out automatically.
10. This field is filled out automatically.
11. Enter the design cooling efficiency.

Heat Rejection Equipment (Cooling Towers, Condensers, Waterside Economizers) Efficiency and Controls.

1. Enter the name or item tag of the equipment.
2. Equipment type: Select from dropdown.
3. Enter the quantity of identical boilers.
4. Rated input capacity: Select from dropdown.
5. Enter the rated efficiency.
6. This field is filled out automatically.
7. Enter Performance Unit.
8. Fan Speed Control: Select from dropdown.
9. Tower Flow Turndown: Select from dropdown.
10. Fan Control in Multiple Cell Equipment: Select from dropdown.
11. Economizer Controls: Select from dropdown.
12. Condenser Water Temp Reset Controls: Select from dropdown.

Electric Resistance Heating

1. Enter the name or item tag of the electric resistance heating system.
2. Equipment description: Select from dropdown.
3. Enter the output capacity.
4. Equipment exception: Select from dropdown.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
Mechanical Systems	(Page 5 of 11)

G. Pumps

1. Enter the name or item tag of the pump.
2. Select the equipment type: Select from dropdown.
3. Enter the quantity of identical pumps.
4. Enter the horsepower.
5. Select the exception of the variable flow control or indicate it has been included in the design: Select from dropdown.
6. Select the exception of the heat pump isolation controls or indicate it has been included in the design: Select from dropdown.
7. Select the exception for variable speed drive or indicate it has been included in the design: Select from dropdown.
8. This field is filled out automatically.

H. Fan Systems & Air Economizers

- Enter the system name.
 - Enter the quantity of identical systems.
 - Select the fan system status: Select from dropdown.
 - Select the system zoning: Select from dropdown.
 - Select what types of spaces the system is serving: Select from dropdown.
 - Enter the fan system airflow.
 - Enter the site elevation.
 - Select the type of economizer or applicable exception: Select from dropdown.
1. Enter the fan name or item tag.
 2. Fan type: Select from dropdown.
 3. Enter the quantity of identical systems.
 4. Select the components included in the system: Select from dropdown.
 5. Enter the airflow through the selected component.
 6. Enter the inches of water gauge in w.g.
 7. This field is filled out automatically.
 8. This field is filled out automatically.
 9. Select the design electrical input power method: Select from dropdown.
 10. Select the motor nameplate horsepower: Select from dropdown.
 11. This field is filled out automatically.

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Dwelling Unit Fan Efficacy & Energy/Heat Recovery

1. This field is filled out automatically.
2. This field is filled out automatically.
3. This field is filled out automatically.
4. Select the system type: Select from dropdown.
5. Enter the system airflow in CFM.
6. Enter the design power in kW.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. Select the ERV/HRV exception or indicate is has been included in the design: Select from dropdown.
10. Enter the design sensible recovery/effectiveness.
11. This field is filled out automatically.
12. This field is filled out automatically.

Exhaust Air Heat Recovery

1. This field is filled out automatically.
2. This field is filled out automatically.
3. Hours of operation per year: Select from dropdown.
4. Enter the design supply airflow rate in CFM.
5. Enter the outdoor airflow in CFM.
6. This field is filled out automatically.
7. Select the exemption to exhaust air heat recovery requirements or indicate is has been included in the design: Select from dropdown.
8. This field is filled out automatically.
9. Select the type of heat recovery rating: Select from dropdown.
10. This field is filled out automatically.
11. Select the type of energy recovery bypass control: Select from dropdown.

Dedicated Outdoor Air System (DOAS)

1. Enter the name or item tag of the DOAS system.
2. Enter the quantity of identical DOAS systems.
3. Is the outdoor air delivered directly to the space? : Select from dropdown
4. Select the DOAS fan control: Select from dropdown.
5. Select the multizone DOAS cooling heat recovery controls: Select from dropdown.
6. Is the DOAS serving multifamily common use space? : Select from dropdown

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Fan Energy Index (FEI)

1. The field is filled out automatically.
2. Select the FEI exception that applies: Select from dropdown.
3. Enter the fan energy index.

I. System Controls

1. Enter the system name.
2. Select the system zoning: Select from dropdown.
3. Select the conditioned floor area being served: Select from dropdown.
4. Select the type of thermostats: Select from dropdown.
5. Select the type of shut-off controls: Select from dropdown.
6. Select the type of isolation zone controls: Select from dropdown.
7. Select the type of demand response controls: Select from dropdown.
8. Select the type of supply air temperature reset controls: Select from dropdown.
9. Select the window interlock exceptions or indicate they have been included in the design: Select from dropdown.
10. Select the direct digital control exceptions or indicate they have been included in the design: Select from dropdown.

J. Ventilation And Indoor Air Quality

1. Check the box to confirm that the ventilation calculations are included in the plans or as part of a separate document.
2. Check the box to confirm that the project includes NR, Hotel/Motel or multifamily common use space. Check the box to confirm that the project includes new or altered multifamily dwelling units.
3. Check the box to confirm that the project is using natural ventilation to meet required ventilation rates.
4. Enter the system name.
5. Enter the system design outside airflow in CFM.
6. Enter the system design transfer air in CFM.
7. Select the air filtration device: Select from dropdown.
8. Enter the space name or item tag.
9. Select the occupancy type: Select from dropdown.
10. Enter the conditioned floor area in square feet.
11. Enter the number of showerheads or toilets.
12. Enter the number of designed occupants for the space.
13. This field is filled out automatically.

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14. This field is filled out automatically.
15. Enter the provided exhaust ventilation airflow in CFM.
16. Select the demand control ventilation and occupant sensor controls: Select from dropdowns.
17. This field is filled out automatically.
18. This field is filled out automatically.

Multifamily Dwelling Unit Ventilation Systems

- Check the box to confirm that the system is using continuous ventilation to meet the ventilation requirements.
19. Enter the space name or item tag.
 20. Enter the conditioned floor area in square feet.
 21. Enter the number of bedrooms.
 22. Enter the number of dwelling units.
 23. This field is filled out automatically.
 24. Enter the supply airflow in CFM.
 25. Enter the exhaust airflow in CFM.
 26. Check the boxes with the applicable types of local exhaust.
 27. Has air filtration been included?: Select from dropdown.

K. Terminal Box Controls

1. Enter the zone/system/VAV box name or item tag
2. Select the zonal control strategy: Select from dropdown.
3. Enter the peak primary airflow in CFM.
4. Enter the primary airflow in the deadband in CFM.
5. Enter the reheated, recooled, or mixed airflow in CFM.
6. Enter the outside airflow in CFM.
7. This field is filled out automatically.
8. This field is filled out automatically.
9. This field is filled out automatically.
10. Does the 1st stage modules and maintain the DB rate?
11. Does the second stage modulate from DV flow to heating max airflow?
12. This field is filled out automatically.

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L. Distribution (Ductwork and Piping)

1. Check the box to confirm that the insulation is protected from damage including damage due to sunlight, moisture, equipment maintenance and wind.
2. Select the system type: Select from dropdown.
3. Select the nominal pipe diameter in inches: Select from dropdown.
4. Select the fluid temperate range in Fahrenheit: Select from dropdown.
5. Select the conductivity rage in BTU-inch per hour per square foot per degree Fahrenheit: Select from dropdown.
6. This field is filled out automatically.
7. This field is filled out automatically.
8. Enter the min insulation thickness required.
9. Enter the insulation thickness per design.
10. Select the exception for pipe insulation requirements or indicate the requirements apply: Select from dropdown.
11. Is the distribution system serving residential or nonresidential space? : Select from dropdown.

Duct Leakage Testing

12. Does the duct system serve a licensed healthcare facility?: Select from dropdown.
13. Does the duct system provided conditioned air to an occupiable space for a constant volume single zone space conditioning system?: Select from dropdown.
14. Does the space conditioned system serve less than 5,000 square feet of conditioned floor area?: Select from dropdown.
15. Is 25% or more of the total surface area of the combined duct system located outdoors or unconditioned spaces?: Select from dropdown.
16. Does the scope of the project include extending and existing duct system which is constructed, insulated or sealed with asbestos?: Select from dropdown.
17. Does the scope of the project include an existing duct system that is documented to have been previously sealed as confirm through field verification and diagnostic testing in accordance with Reference Appendix NA2?: Select from dropdown.
18. Are all ductwork and plenums with pressure class ratings sealed to Seal Class A?: Select from dropdown.
19. Is all the ductwork an extension of an existing duct system?: Select from dropdown.
20. Is the ductwork serving and individual dwelling unit?: Select from dropdown.
21. Is less than 25 feet of new or replacement ducting installed?: Select from dropdown.

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M. Cooling Towers

1. Check the box to confirm that the project is showing cooling tower calculations on the plans or attaching calculations instead of completing the NRCC cooling tower table.
2. Enter the name or item tag of the cooling tower.
3. Enter the design gallons per minute.
4. Enter the min flow in gallons per minute.
5. Enter the rated condition gallons per minute per horsepower.
6. Enter the maximum skin temperature in Degrees Fahrenheit.
7. Enter the conductivity.
8. Enter the M-alkalinity.
9. Enter the calcium hardness.
10. Enter the magnesium hardness.
11. Enter the target tower cycles.
12. This field is filled out automatically.
13. This field is filled out automatically.
14. This field is filled out automatically.
15. This field is filled out automatically.

N. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

O. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

P. Declaration of Required Certificates of Verification

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Q. Mandatory Measures

1. Are mandatory measures documented through the mandatory measures note block?: Select from dropdown.
2. Enter the plan sheet or construction document location of the mandatory measure documentation.
3. List of mandatory measures.
-Enter the plan sheet or construction document location of the heating equipment efficiency per §110.1.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-MCH-01-E
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- Enter the plan sheet or construction document location of the cooling equipment efficiency per §110.1.
 - Enter the plan sheet or construction document location of the furnace standby loss per §110.2(d).
 - Enter the plan sheet or construction document location of the duct insulation per §120.4.----Enter the plan sheet or construction document location of the heating hot water equipment efficiency per §110.1
 - Enter the plan sheet or construction document location of the cooling chilled and condenser water equipment efficiency per §110.1.
 - Enter the plan sheet or construction document location of the Open and Closed Circuit Cooling Towers conductivity of flow-based controls per §110.2(e)1.
 - Enter the plan sheet or construction document location of the Open and Closed Circuit Cooling Towers Flow Meter with analog output per §110.2(e)3.
 - Enter the plan sheet or construction document location of the Open and Closed Circuit Cooling Towers Overflow Alarm per §110.2(e)4.
 - Enter the plan sheet or construction document location of the Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per §110.2(e)5.
 - Enter the plan sheet or construction document location of the Pipe Insulation per §120.3(b).
 - Enter the plan sheet or construction document location of the Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per §120.9.
 - Enter the plan sheet or construction document location of the Heat Pump with Supplementary Electric Resistance Heater Controls per §110.2(b).
 - Enter the plan sheet or construction document location of the air duct and plenum system per §120.4(a)-(f).
 - Enter the plan sheet or construction document location of the Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
4. Plan sheet or construction document location.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Permit Application Date:

A. General Information

LMCC-MCH-02 is applicable to multiple space conditioning systems contained within a single dwelling unit.

01	Date Prepared	
02	Building Type	
03	Dwelling Unit Name/Type	
04	Dwelling Unit Count	
05	Climate Zone	
06	Dwelling Unit Total Conditioned Floor Area (ft ²)	
07	Number of Space Conditioning Systems in this Dwelling Unit	

B. Space Conditioning (SC) System Information

01	02	03	04	05	06	07	08	09	10
SC System ID/Name	SC System Description of Area Served	CFA served by this SC System (ft ²):	Is the SC system a ducted system?	Installing a refrigerant containing component?	Installing new SC system components?	Installing more than 25 feet of ducts?	Installing entirely new duct system?	Installing entirely new SC system?	Alteration Type:



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**C. Extension of Existing Duct System, Greater Than 25 Feet (Section 180.2(b)2AiiII)**Required Documentation:

LMCI-MCH -01-E - Space Conditioning Systems

-Duct insulation requirement for the new portions of supply-air and return-air ducts or plenums: R-6 (CZ 3, 5-7 and R-8 (CZ1,2,4, 8-16).

LMCI & LMCV-MCH-20-H – Duct Leakage Test

-Leakage rate compliance: less than or equal to 10%, or less than or equal to 7% leakage to outside, or seal all accessible leaks

Exceptions:

Existing duct systems constructed, insulated, or sealed with asbestos are exempt from MCH-20 duct leakage testing requirements

01	02	03
SC System ID/Name	SC System Description of Area Served	Required New Duct R-Value



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**D. Altered Space Conditioning System (Sections 180.2(b)2)**Required Documentation:

LMCI-MCH-01-E - Space Conditioning Systems

-Duct insulation requirement for the new portions of supply-air and return-air ducts or plenums: R-6 (CZ3, 5-7) and R-8 (CZ1,2,4, 8-16)

LMCI & LMCV-MCH-20-H – Duct Leakage Test required when heating or cooling components are installed in ducted systems, or when more than 25 ft of duct length is replaced.

-Leakage rate compliance: less than or equal to 10%, or less than or equal to 7% leakage to outside, or seal all accessible leaks.

LMCI & LMCV-MCH-25-H Refrigerant Charge verification required when refrigerant containing components are installed or altered (applicable in CZ 2, 8-15).

LMCI & LMCV-MCH-23 Airflow Rate greater than or equal to 300 CFM/ton required when MCH-25 is required.

Exceptions:

-Duct systems registered with ECC provider as previously sealed are exempt from MCH-20 Duct Leakage Testing requirements.

-

-Existing duct systems constructed, insulated, or sealed with asbestos are exempt from MCH-20 Duct Leakage Testing requirements.

01	02	03	04	05	06	07	08	09	10	10b	11	12	13
SC System ID/Name	SC System Description of Area Served	Heating System Type	Altered Heating Component	Heating Efficiency Type	Heating Minimum Efficiency Value	Cooling System Type	Altered Cooling Components	Cooling Efficiency Type	Cooling Minimum Efficiency Value SEER/SEER2	Cooling Minimum Efficiency Value EER/EER2/CEER	Required Thermostat Type	New or Replaced Duct Length	New Duct R-Value



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**E. Entirely New or Complete Replacement Duct System, with or without Equipment Changeout** (Sections 180.2(b)2Aial and 180.2(b)2aiii)Required Documentation:

LMCI-MCH-01-E - Space Conditioning Systems

-Duct insulation requirement for the new portions of supply-air and return-air ducts or plenums: R-6 (CZ3,5-7) and R-8 (CZ1,2,4, 8-16)

LMCI & LMCV-MCH-20-H Duct Leakage Test required.

-Leakage rate compliance: less than or equal to 5 percent.

LMCI & LMCV-MCH-22 Fan Efficacy

LMCI & LMCV-MCH-23 Airflow Rate

-Compliance: Fan Efficacy less than or equal to 0.58 W/cfm for non-gas furnaces and System Airflow greater than or equal to 350 cfm/ton.

-Alternative Compliance: LMCI & LMCV-MCH-28 Return Duct Design verification is an alternative to MCH-22 and MCH-23 verification.

LMCI & LMCV-MCH-25-H Refrigerant Charge verification required when refrigerant containing components are installed or altered (applicable in CZ 2, 8-15).

Note:

An "entirely new or complete replacement duct system" means at least 75 percent of the duct system is new duct material, and up to 25 percent may consist of reused parts from the dwelling unit's existing duct system (e.g., registers, grilles, boots, air handler, coil, plenums, duct material) if the reused parts are accessible and can be sealed to prevent leakage

01	02	03	04	05	06	07	08	09	10	10b	11	12
SC System Identification or ID/Name	SC System Description of Area Served	Heating System Type	Altered Heating Component	Heating Efficiency Type	Heating Minimum Efficiency Value	Cooling System Type	Altered Cooling Components	Cooling Efficiency Type	Cooling Minimum Efficiency Value SEER/SEER2	Cooling Minimum Efficiency Value EER/EER2/CEER	Required Thermostat Type	New Duct R-Value



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**F. Entirely New or Complete Replacement Space Conditioning System (180.2(b)2Ai)**Required Documentation:

LMCI-MCH-01-E - Space Conditioning Systems

-Duct insulation requirement for the new portions of supply-air and return-air ducts or plenums: R-6 (CZ3, 5-7) and R-8 (CZ1,2,4, 8-16)

LMCI & LMCV-MCH-20-H Duct Leakage Test required.

-Leakage rate compliance: less than or equal to 5 percent.

LMCI & LMCV-MCH-22 Fan Efficacy

LMCI & LMCV-MCH-23 Airflow Rate

-Compliance: Fan Efficacy less than or equal to 0.58 W/cfm for non-gas furnaces and System Airflow greater than or equal to 350 cfm/ton.

- Alternative Compliance: LMCI & LMCV-MCH-28 Return Duct Design verification is an alternative to MCH-22 and MCH-23 verification.

LMCI & LMCV-MCH-25-H Refrigerant Charge verification required when refrigerant containing components are installed or altered (applicable in CZ 2, 8-15).

Note:

An "entirely new or complete replacement duct system" means at least 75 percent of the duct system is new duct material, and up to 25 percent may consist of reused parts from the dwelling unit's existing duct system (e.g., registers, grilles, boots, air handler, coil, plenums, duct material) if the reused parts are accessible and can be sealed to prevent leakage

01	02	03	04	05	06	07	08	09	10	10b	11	12
SC System ID/Name	SC System Description of Area Served	Heating System Type	Altered Heating Component	Heating Efficiency Type	Heating Minimum Efficiency Value	Cooling System Type	Altered Cooling Components	Cooling Efficiency Type	Cooling Minimum Efficiency Value SEER/SEER2	Cooling Minimum Efficiency Value EER/EER2/CEER	Required Thermostat Type	New Duct R-Value



ALTERATIONS TO SPACE CONDITIONING SYSTEMS

SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to accomplish this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to accomplish these requirements.

Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300

LMCC-MCH-02-E User Instructions

Minimum requirements for prescriptive HVAC alteration compliance can be found in Building Energy Efficiency Standards Section 150.2(b)1C.

Completing these forms will require that you have the 2025 Reference Appendices for the 2025 Building Energy Efficiency Standards.

When the term LMCC is used, it is referencing the LMCC-MCH-02. Worksheets are identified by their entire name, and subsequently by only the worksheet number, such as LMCC-ENV-02.

Instructions for sections with column numbers and row numbers are given separately.

If any part of the alteration does not comply with the prescriptive requirements, prescriptive compliance fails and the performance compliance approach must be used.

A. General Information

1. Date Prepared: Enter the date of document preparation.
2. Building Type: Defaults to Multifamily
3. Dwelling Unit Name/Type: Enter a unique dwelling unit name or any other identifying name that would readily distinguish this dwelling unit from others in this project.
4. Dwelling Unit Count: Enter the number of dwelling units.
5. Climate Zone: Select the correct climate zone for the project. From the Reference Appendices, Joint Appendix, JA2.1.1.
6. Dwelling Unit Total Conditioned Floor Area (ft²): For one-dwelling projects, this field will equal the conditioned floor area (CFA) on that document. For multi-dwelling projects, this field will sum with other dwelling units to equal the total CFA on that document. If multiple systems are being affected, a CFA value will be assigned to each system in Section B. Those must sum to this total for the project. For projects NOT involving all systems in the dwelling, this is the CFA of only the portion of the dwelling unit affected.
7. Number of Space Conditioning (SC) Systems in this Dwelling Unit: Enter the number of space conditioning systems in the dwelling unit.

B. Space Conditioning (SC) System Information (Section 150.2(b)1C)

1. SC System Identification or Name: Enter a unique identifier for this system that will readily distinguish it from other systems in the dwelling unit, such as “HVAC1,” “upstairs system,” etc. It is recommended to mark the system with this identifier using a permanent marker for ease of identification in the field. For single-system dwelling units, enter a simple name such as “HVAC.”
2. SC System Description of Area Served: Enter a unique description of the portion of dwelling unit served by this system, such as “entire second floor,” “bedroom wing,” etc. For single-system dwelling units, enter a simple description such as “entire house.”
3. CFA served by this SC System (ft²): Enter the CFA served by this system.
4. Is the altered or installed system a ducted system? Select “YES” if the system has a central air handler (package or split) that is connected to one or more supply air outlets via ducting of any shape or material. Select “NO” for nonducted systems such as ductless mini-splits, through-the-wall systems, package terminal air conditioners, etc.
5. Altering or installing a refrigerant containing component? Select “YES” if the project includes installing or replacing a component that contains refrigerant; otherwise select “NO.” Refrigerant containing components include compressors, condensing coils, evaporator coils, refrigerant metering devices or refrigerating lines.
6. Installing new components? Select “YES” if new HVAC components such as a packaged unit, condensing unit, cooling/heating coil, or air-handling unit (e.g., furnace), etc. are being installed in the system; otherwise select “NO.”
7. Installing more than 25 linear feet of new or replacement ducts? Select “YES” if the project involves installing more than 25 linear feet of new or replacement ducts; otherwise select “NO.”
8. Is the entire duct system accessible for sealing and is more than 75 percent of the duct system new or replaced? Select “YES” when, upon completion of the project, more than 75 percent of the ducts will be new ducts and/or replaced ducts, AND if at any time during the project all of the ducts are accessible for duct sealing; otherwise select “NO.” “Accessible” is defined in the Reference Appendices, Joint Appendix, JA1.
9. Are all of the system's components and ducts new (entirely new system) or replaced? Select “YES” if the duct system meets the definition of an “Entirely New or Replacement Duct System” and all of the heating and cooling components (furnace, condenser, coil, etc.) are all new or replaced; otherwise select “NO.”
10. Alteration Type: This field is calculated automatically based on the information entered in previous fields. Alteration types are defined in the Reference Appendices, Joint Appendix, JA1. The alteration type will determine which of the following sections are required by this document.

C. Extension of Existing Duct System, Greater Than 25 Feet (Section 150.2(b)1Diib)

1. System Identification or Name: This field is automatically filled from entries in Section B.
2. SC System Location or Description of Area Served. This field is automatically filled from entries in Section B.
3. Required New Duct R-value: This field is automatically calculated based on the climate zone selected in Section A. It represents the minimum R-value required. The installed R-value shown on the installation certificate (LMCC) must meet or exceed this value.

D. Altered Space Conditioning System (Sections 150.2(b)1E and F)

1. System Identification or Name: This field is automatically filled from entries in Section B.
2. SC System Location or Description of Area Served. This field is automatically filled from entries in Section B.
3. Heating System Type: Select the most appropriate heating system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
4. Altered Heating Component: Select the most appropriate heating system components from the list that are being added or replaced as part of this project. You can select multiple choices if needed. If the type of component being altered does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
5. Heating Efficiency Type: Select the heating efficiency type from the list that is appropriate to the type of system being altered or installed.
6. Heating Minimum Efficiency Value: This field is filled automatically based on selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum efficiency value.
7. Cooling System Type: Select the most appropriate cooling system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
8. Altered Cooling Components: User chooses as many as are applicable: Select the most appropriate cooling system components from the list that are being added or replaced as part of this project. You can select multiple choices if needed. If the type of component being altered does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
9. Cooling Efficiency Type: Select the cooling efficiency type from the list that is appropriate to the type of system being altered or installed.
10. Cooling Minimum Efficiency Value SEER2: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
- 10b. Cooling Minimum Efficiency Value EER2/CEER: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
11. Required Thermostat Type: This field is filled automatically based on selections in previous fields. If “setback” appears here, a setback thermostat meeting the minimum requirements of Section 150.0(i) is required to be installed as part of this project.
12. New or Replaced Duct Length: Select the descriptor that describes the amount of duct, at the completion of the project that is added or replaced as part of this project.
13. New Duct R-value: This field is filled automatically based on the entries in previous fields and the climate zone of the project.

E. Entirely New or Complete Replacement Duct System, with or without Equipment Changeout (Sections 150.2(b)1Diia and 150.2(b)1E, F)

1. System Identification or Name: This field is automatically filled from entries in Section B.
2. SC System Location or Description of Area Served. This field is automatically filled from entries in Section B.
3. Heating System Type: Select the most appropriate heating system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
4. Altered Heating Component: Select the most appropriate heating system components from the list that are being added or replaced as part of this project. You can select multiple choices, if needed. If the type of component being altered does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300
5. Heating Efficiency Type: Select the heating efficiency type from the list that is appropriate to the type of system being altered or installed.
6. Heating Minimum Efficiency Value: This field is filled automatically based on selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCC). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
7. Cooling System Type: Select the most appropriate cooling system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
8. Altered Cooling Components: User chooses as many as that are applicable: Select the most appropriate cooling system components from the list that are being added or replaced as part of this project. You can select multiple choices, if needed. If the type of component being altered does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300
9. Cooling Efficiency Type: Select the cooling efficiency type from the list that is appropriate to the type of system being altered or installed.
10. Cooling Minimum Efficiency Value SEER2: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
- 10b. Cooling Minimum Efficiency Value EER2/CEER: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
11. Required Thermostat Type: This field is filled automatically based on selections in previous fields. If “setback” appears here, a setback thermostat meeting the minimum requirements is required to be installed as part of this project.
12. New Duct R-value: This field is filled automatically based on the entries in previous fields and the climate zone of the project.

F. Entirely New or Complete Replacement Space Conditioning System (Section 150.2(b)1C)

1. System Identification or Name: This field is automatically filled from entries in Section B.
2. SC System Location or Description of Area Served. This field is automatically filled from entries in Section B
3. Heating System Type: Select the most appropriate heating system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
4. Altered Heating Component: This field is automatically filled.
5. Heating Efficiency Type: Select the heating efficiency type from the list that is appropriate to the type of system being altered or installed.
6. Heating Minimum Efficiency Value: This field is filled automatically based on selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCC). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
7. Cooling System Type: Select the most appropriate cooling system type from the list. If the type of system to be installed does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
8. Altered Cooling Components (user chooses as many as that are applicable): Select the most appropriate cooling system components from the list that are being added or replaced as part of this project. You can select multiple choices, if needed. If the type of component being altered does not appear on the list, please contact the California Energy Commission Hotline at 800-772-3300.
9. Cooling Efficiency Type: Select the cooling efficiency type from the list that is appropriate to the type of system being altered or installed.
10. Cooling Minimum Efficiency Value SEER2: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
- 10b. Cooling Minimum Efficiency Value EER2/CEER: This field is filled automatically based on LMCC-MCH-02 selections in previous fields. This field represents the minimum efficiency to be installed. The actual installed efficiency may be higher and will be recorded on the Installation Certificate (LMCI). Optional: the user may enter a higher-than-default value for situations where local codes or programs require a higher minimum.
11. Required Thermostat Type: This field is filled automatically based on selections in previous fields. If “setback” appears here, a setback thermostat meeting the minimum requirements is required to be installed as part of this project.
12. New Duct R-value: This field is filled automatically based on the entries in previous fields and the climate zone of the project.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

FOR INFORMATION AND DATA COLLECTION
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WITH AN ECC PROVIDER.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with requirements in §110.1, §110.3, §120.3, and §140.5, and with requirements in §141.0 for additions and alterations, for domestic water heating systems serving nonresidential occupancies within low-rise mixed-use buildings using the prescriptive path. For low-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §110.1, §110.3, §160.4 and §170.2(d), and with requirements in §180.1 for additions and §180.2 for alterations.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)		02	Climate Zone							
03	Occupancy Types Within Project (select all that apply):										
<input type="checkbox"/>	Office	<input type="checkbox"/>	High-Rise Residential Multifamily > 4 stories	<input type="checkbox"/>	Relocatable	<input type="checkbox"/>	School	<input type="checkbox"/>	Restaurant/ Commercial Kitchen	<input type="checkbox"/>	Religious Facility
<input type="checkbox"/>	State Building	<input type="checkbox"/>	Healthcare Facility	<input type="checkbox"/>	Hotel/ Motel	<input type="checkbox"/>	All Others	<input type="checkbox"/>	Convention Center	<input type="checkbox"/>	Medical Clinic
<input type="checkbox"/>	Auditorium	<input type="checkbox"/>	Parking Garage	<input type="checkbox"/>	Warehouse	<input type="checkbox"/>	Retail	<input type="checkbox"/>	Sports Arena	<input type="checkbox"/>	Gymnasium
<input type="checkbox"/>	Classroom	<input type="checkbox"/>	Library	<input type="checkbox"/>	Theater	<input type="checkbox"/>	Data Center	<input type="checkbox"/>	Support Areas	<input type="checkbox"/>	Financial Institution
<input type="checkbox"/>	Commercial/ Industrial	<input type="checkbox"/>	School	<input type="checkbox"/>	Grocery Store						

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table identifies any domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §140.5/ §170.2(d), and §141.0(a)/ §180.1, or §141.0(b)2N/ §180.2 for additions or alterations. Solar water heating systems should be documented on the NRCC-SAB compliance document. Combined hydronic water heating systems should be documented on the NRCC-MCH compliance document.

01		02	03		
My project consists of (check all that apply):		System Type ^{1,2}	System Components		
<input type="checkbox"/>	New System (DHW system being installed for the first time in newly constructed building)		<input type="checkbox"/> Equipment	<input type="checkbox"/> Distribution	<input type="checkbox"/> Controls
<input type="checkbox"/>	System Alteration (equipment, distribution, or controls)		<input type="checkbox"/> Equipment	<input type="checkbox"/> Distribution	<input type="checkbox"/> Controls

Gas or propane central water heating systems serving multiple dwelling units require a solar water heating system per §170.2(d)3. Solar water heating systems are documented on the NRCC-SAB compliance document. If solar water heating systems are used in conjunction with non-solar systems to meet the water heating needs of the building, document the non-solar systems on this compliance document.

Note: If combined hydronic water heating systems are used in conjunction with domestic only systems to meet the water heating needs of the building, only document the domestic only systems on this compliance document.

¹ FOOTNOTE: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.

² Dwelling units refers to hotel/ motel guest rooms and units in a multifamily residential occupancy.

³ DHW systems serving 2 or more dwelling units are considered "Central Systems" for multifamily and hotel/motel occupancies.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Table Instructions: Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01	02	03	04	05
Domestic Hot Water Equipment	Distribution Systems	Controls	Pool/Spa	Compliance Results
Table F	Table G	Table H	Table J	
				COMPLIES, COMPLIES with Exceptional Conditions or DOES NOT COMPLY

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. DOMESTIC HOT WATER EQUIPMENT**

Table Instructions: Complete the following table to demonstrate compliance with mandatory equipment requirements in §110.1 and §110.3. Compliance with prescriptive requirements in §140.5(c)/§170.2(d) must also be demonstrated and with §141.0/§180.1/§180.2 for addition and alteration scopes.

Equipment Schedule: Water Heater Efficiency and Standby Loss

01		02		03			04	
System Name:		Space Type:		Exception to §140.5(c)/§170.2(d)2B:			Capacity-weighted Average Efficiency (%)	
05	06	07	08	09	10	11	12	13
Name or Item Tag	Quantity	System Status	Equipment Type	Rated Input Capacity (Btu/h)	Rated Efficiency	Minimum Efficiency Required	Efficiency Unit	Maximum Standby Loss

¹ FOOTNOTE: In systems ≥ 1 MMBtu/h with multiple units, gas water heaters with input capacity $> 100,000$ Btu/h may meet the 90% Et requirement via an input capacity-weighted average.

² Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: <https://cacertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Multifamily Water Heating Equipment Serving Individual Dwelling Units- §170.2(d)1, §180.2(b)3C**

Equipment Type (select all that apply):		
System Name:		
16	<input type="checkbox"/>	Gas/propane instantaneous water heater with input rating $\leq 200,000$ BTUH and no storage tank. Note: Cannot comply using the prescriptive path with a storage tank per Exception 1 §170.2(d)1 (New Construction and Additions Only)
	<input type="checkbox"/>	A single 240-volt heat pump water heater serving the dwelling unit. (New Construction and Additions Only, §170.2(d)1A)
	<input type="checkbox"/>	A single 120-volt heat pump water heater serving a dwelling unit with 1 bedroom or less. (New Construction and Additions Only, Exception 2 to §170.2(d)1)
	<input type="checkbox"/>	A single heat pump water heater that meets the requirements of NEEA Advanced Water Heater Specification Tier 3 or higher (§170.2(d)1B or §180.2(b)3).
	<input type="checkbox"/>	A single heat pump water heater with storage tank located in the garage or conditioned space and be placed on an incompressible, rigid insulated surface with minimum R-10. The water heater shall be installed with a communication interface that meets either the requirements of 110.12(a) or has an ANSI/CTA-2045-B communication port. (Alterations Only)
	<input type="checkbox"/>	If the existing water heater is an electric resistance water heater, a consumer electric water heater. (Alterations only, §180.2(b)3)
17	<input type="checkbox"/>	Replacement or altered gas or propane water heater (Alterations only, §180.2(b)3ci)

Water Heating Equipment All Occupancies - §110.3(c)3, §140.5(a)

	Yes	No	NA	Requirement
System Name:				
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Unfired storage tank insulation shall have Internal + External $\geq R-16$ OR External $\geq R-3.5$. Label required per §110.3(c)3
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	New state buildings 60% of energy for service water heating from site solar energy or recovered energy per §110.3(c)5
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Isolation valves for instantaneous water heater with input rating > 6.8 kBTUH or 2 kW has been specified per §110.3(c)6
21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	School buildings $< 25,000\text{ft}^2$ and < 4 stories must install a heat pump water heating system per §140.5(a)1. Water heating systems serving an individual bathroom space may be an instantaneous electric water heater.
22	Air-Source Heat Pump Water Heaters (HPWHs) (§110.3(c)7)			
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Backup heat is required when inlet air is unconditioned unless the compressor cut-off temperature is below the Heating Winter Median of Extremes for the closest location listed in Table 2-3 from Reference Joint Appendix JA2.
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Consumer integrated HPWHs shall meet one of the following ventilation requirements: Dropdown

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Multifamily and Hotel/Motel Water Heating Equipment for Central Systems Serving Dwelling Units §170.2(d)2&3**

Equipment Type (select all that apply):		
System Name:		
23	<input type="checkbox"/>	Heat pump Water Heater (New Construction and Additions Only- §170.2(d)2A)
		<input type="checkbox"/> The primary heat pump water heater shall be a single-pass heat pump water heater. - §170.2(d)2Ai
		<input type="checkbox"/> The primary storage tank temperature setpoint shall be at least 135°F. - §170.2(d)2Aiv
		<input type="checkbox"/> The minimum heat pump water heater compressor cut-off temperature shall be equal to or lower than 40°F ambient air temperature. - §170.2(d)2Avi
		<input type="checkbox"/> Design documentation shall specify the operating conditions at which the primary heat pump water heater can supply hot water at design outlet water temperature without engaging auxiliary heating mechanism. - §170.2(d)2Avii
24	<input type="checkbox"/>	NEEA Advanced Water Heater Specification for commercial heat pump water heater Tier 2 or higher (§170.2(d)2A)
25	<input type="checkbox"/>	Gas/propane water heater (New Construction and Additions Only, §170.2(d)2B)
		<input type="checkbox"/> A solar water-heating system meeting the installation criteria specified in Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.20 in Climate Zones 1 through 9 or a minimum solar savings fraction of 0.35 in Climate Zones 10 through 16 - §170.2(d)2Bi. This system should be documented on the NRCC-SAB form OR;
		<input type="checkbox"/> A solar water-heating system meeting the installation criteria specified in Reference Residential Appendix RA4 and with a minimum solar savings fraction of 0.15 in Climate Zones 1 through 9 or a minimum solar savings fraction of 0.30 in Climate Zones 10 through 16. - §170.2(d)2Bii. This system should be documented on the NRCC-SAB form. AND a drain water heat recovery system that is field verified as specified in the Reference Appendix RA3.6.9.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM**

Table Instructions: Complete the following table to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §140.5. For multifamily and hotel/motel occupancies, compliance is demonstrated with requirements in §110.3(c), §160.4 and §170.2(d).

Recirculation Loops in Central Systems Serving Dwelling Units, Hotel/Motel Guest Rooms or Nonresidential Spaces - §110.3, §170.2(d)2

	Yes	No	Requirement
01	<input type="checkbox"/>	<input type="checkbox"/>	Air release valve or vertical pump installation per §110.3(c)4A
02	<input type="checkbox"/>	<input type="checkbox"/>	Check valve or similar located between recirculation pump and water heating equipment to prevent backflow per §110.3(c)4B
03	<input type="checkbox"/>	<input type="checkbox"/>	Hose bibb installed between pump and equipment and isolation valve between hose bibb and equipment per §110.3(c)4C
04	<input type="checkbox"/>	<input type="checkbox"/>	Isolation valves on both sides of the pump per §110.3(c)4D
05	<input type="checkbox"/>	<input type="checkbox"/>	Cold water and recirculation loop piping shall not be connected to the hot water storage tank drain port per §110.3(c)4E
06	<input type="checkbox"/>	<input type="checkbox"/>	Check valve installed on cold water supply between hot water system and next closest tee on cold water supply per §110.3(c)4F
07	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: For heat pump water heating systems, the hot water return from the recirculation loop shall connect to a recirculation loop tank and shall not directly connect to the primary heat pump water heater inlet or the primary thermal storage tanks per §170.2(d)2Aii.
08	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: For heat pump water heating systems, the fuel source for the recirculation loop tank shall be electricity if per §170.2(d)2Aiii.
09	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: The recirculation loop tank temperature setpoint shall be at least 10°F lower than the primary thermal storage tank temperature setpoint - §170.2(d)2Av
10	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: All hot water distribution piping shall be sized in accordance with the California Plumbing Code Appendix M per §170.2(d)2C.
11	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: A recirculation system with mechanical or digital thermostatic master mixing valve on each distribution supply and return loop and meet the requirements in Reference Appendix RA4.4, unless building has ≤ 8 dwelling units, per §170.2(d)2D.
12	<input type="checkbox"/>	<input type="checkbox"/>	DWELLING UNITS ONLY: Insulation for hot water pipes shall be field verified as specified in Reference Appendix RA3.6.3 per §170.2(d)2E.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Distribution of Individual System(s) serving Dwelling Units - §170.2(d)1**

	Yes	Not Applicable	Requirement	
System Name:				
13	<input type="checkbox"/>	<input type="checkbox"/>	Per §170.2(d)1A, single 240-volt heat pump water heaters serving dwelling units must also include systems with:	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Compact hot water distribution system as specified in Reference Appendix RA4.4.16 in climate zone 1 & 16; AND
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A drain water heat recovery system that is field verified by a HERS Rater per Reference Appendix RA3.6.9 in climate zone 16.
14	<input type="checkbox"/>	<input type="checkbox"/>	A drain water heat recovery system that is field verified by a HERS Rater per Reference Appendix RA3.6.9 in climate zone 16 per §170.2(d)1B.	
15	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation distribution systems serving individual dwelling units, only Demand Recirculation Systems with manual on/off control as specified in the Reference Appendix RA4.4.9 shall be used per §170.2(d)1.	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Mandatory Pipe Insulation All Occupancies - §120.3, §160.4**

	Yes	Not Applicable	Requirement
System Name:			
16	<input type="checkbox"/>	<input type="checkbox"/>	<p>For systems serving dwelling units and common areas, pipe insulation must meet the minimum insulation requirements in Table 160.4-A (see below) except:</p> <ul style="list-style-type: none"> - Piping that penetrates framing members shall not be required to have pipe insulation for the distance of the framing penetration. Piping that penetrates metal framing shall use grommets, plugs, wrapping or other insulating material to assure that no contact is made with the metal framing. Insulation shall abut securely against all framing members. - Piping installed in interior or exterior walls shall not be required to have pipe insulation if all of the requirements are met for compliance with Quality Insulation Installation (QII) as specified in the Reference Residential Appendix RA3.5. - Piping surrounded with a minimum of 1 inch of wall insulation, 2 inches of crawlspace insulation, or 4 inches of attic insulation, shall not be required to have pipe insulation.
17	<input type="checkbox"/>	<input type="checkbox"/>	<p>For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A1 or Table 120.3-A2 (see below) per §120.3:</p> <ul style="list-style-type: none"> - Recirculating system piping, including supply and return piping of the water heater - The first 8 ft of hot and cold outlet piping, including between storage tank and heat trap, for a nonrecirculating storage system - Pipes that are externally heated
18	<input type="checkbox"/>	<input type="checkbox"/>	<p>Per §120.3(b)/ §160.4(f), pipe and appurtenance insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Protection shall include:</p> <ul style="list-style-type: none"> • Insulation exposed to weather shall be installed with a cover suitable for outdoor service. • Pipe insulation buried below grade must be installed in a water-proof and non-crushable casing or sleeve.

TABLE 160.4-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft ² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)			
			< 1	1 to < 1.5	1.5 to < 4	1.5 to < 4 Multifamily & Hotel/Motel
			Minimum Insulation Required			
105-140	0.22-0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11	2 in or R-16

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****H. DOMESTIC HOT WATER SYSTEM CONTROLS - §110.3, §120.9, §160.4(d), §170.2(d), §180.1(b)3**

Table Instructions: Complete the following table to demonstrate compliance with controls requirements in §110.3 for all occupancies. For nonresidential occupancies, compliance is demonstrated with requirements in §120.9. For multifamily residential and hotel/motel occupancies, compliance is demonstrated with requirements in §160.4(d) and §170.2(d).

System Name:			
	Yes	Not Applicable	Requirement
01	<input type="checkbox"/>	<input type="checkbox"/>	Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a).
02	<input type="checkbox"/>	<input type="checkbox"/>	Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)1 unless covered by California Plumbing Code Section 613.0.
03	<input type="checkbox"/>	<input type="checkbox"/>	Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)2 unless system serves healthcare facility.
04	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving multiple dwelling units, design includes a mechanical or digital thermostatic master mixing valve on each distribution supply and return loop per §170.2(d), or §180.1(b)3 for additions.
05	<input type="checkbox"/>	<input type="checkbox"/>	For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA 4.4.9 per §170.2(d).
06	<input type="checkbox"/>	<input type="checkbox"/>	Combustion air positive shut-off shall be provided per §120.9(a) & §160.4(d) on all newly installed commercial boilers as follows: - Boiler with input capacity ≥ 2.5 MMBtu/h, in which the boiler is designed to operate with a nonpositive vent static pressure - Boilers where one stack serves two or more boilers with a total combined input capacity per stack of 2.5 MMBtu/h.
07	<input type="checkbox"/>	<input type="checkbox"/>	Boiler combustion air fans with motors ≥ 10 hp shall meet one of the following for newly installed boilers per §120.9(b) & §160.4(d)2: - The fan motor shall be driven by a variable speed drive OR - The fan motor shall include controls that limit the fan motor demand to $\leq 30\%$ of the total design wattage at 50% of the design air volume.
08	<input type="checkbox"/>	<input type="checkbox"/>	Newly installed boilers with an input capacity ≥ 5 MMBtu/h and a steady state full-load combustion efficiency $< 90\%$ shall maintain excess (stack-gas) oxygen concentrations $\leq 5\%$ by volume on a dry basis over firing rates of 20-100%. Combustion air volume shall be controlled with respect to firing rate or flue gas oxygen concentration. Use of a common gas and combustion air control linkage or jack shaft is prohibited per §120.9(c) & §160.4(d)3.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. ELECTRIC READY BUILDINGS**

This table includes electric ready requirements that must be met when installing gas or propane water heaters in dwelling units to demonstrate compliance with §160.9.

01	Systems serving multifamily occupancy that use gas or propane include:	<input type="checkbox"/> Gas/propane water heater serving individual dwelling units	<input type="checkbox"/> Gas/propane water heater serving multiple dwelling units	<input type="checkbox"/> None of these
----	--	---	---	--

Gas/Propane Water Heaters Serving Individual Dwelling Units - §160.9(e)

System Name:		
	Yes	Requirement
02	<input type="checkbox"/>	160.9(e)2: A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance
03	<input type="checkbox"/>	<p>A ventilation method meeting the following per 160.9(e)4: Dropdown options (only the one that is selected shows up):</p> <ul style="list-style-type: none">- The designated space for the future heat pump water heater shall have a minimum volume of 700 cubic feet; or- The designated space for the future heat pump water heater shall vent to a communicating space in the same pressure boundary via permanent openings with a minimum total NFA of 250 square inches., so that the total combined volume connected via permanent openings is 700 cubic feet or larger. The permanent openings shall be:<ul style="list-style-type: none">- Fully louvered doors with fixed louvers; or- Two permanent fixed openings located within 12 inches from the enclosure top and bottom;- The designated space for the future heat pump water heater shall include two 8 inches capped ducts, venting to the building exterior:<ul style="list-style-type: none">- All ducts, connections, and building penetrations shall be sealed.- Exhaust air ducts and all ducts which cross pressure boundaries shall be insulated to a minimum insulation level of R-6.- Airflow from termination points shall be diverted away from each other.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Gas/Propane Water Heaters Serving Multiple Dwelling Units - §160.9(f)**

System Name:		
	Yes	Requirement
04	<input type="checkbox"/>	<p>160.9(f)2A: Space shall be reserved for a Heat Pump. The minimum space reserved shall include space for service clearances and air flow clearances and shall meet the following: <i>Dropdown options (only the one that is selected shows up):</i></p> <ul style="list-style-type: none"> - The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project; or - The space reserved shall meet the requirements specified in Joint Appendix JA15.2.1.
05	<input type="checkbox"/>	<p>160.9(f)2B: Space shall be reserved for Tanks. The minimum space reserved shall include space for service clearances and shall meet the following: <i>Dropdown options (only the one that is selected shows up):</i></p> <ul style="list-style-type: none"> - The space reserved shall be the space required for a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project; or - The space reserved shall meet the requirements specified in Joint Appendix JA15.2.2.
06	<input type="checkbox"/>	<p>160.9(f)3: Ventilation shall be provided by meeting the following: <i>Dropdown options (only the one that is selected shows up):</i></p> <ul style="list-style-type: none"> - Physical space reserved for the heat pump shall be located outside; or - A pathway shall be reserved for future routing of supply and exhaust air via ductwork from the reserved heat pump location to a suitable outdoor location. Penetrations through the building envelope for louvers and ducts shall be planned and identified for future use. The reserved pathway and penetrations through the building envelope shall be sized to meet one of the following: <ul style="list-style-type: none"> - The reserved pathway and penetrations shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - The reserved pathway and penetrations shall be sized to meet the requirements specified in Joint Appendix JA15.2.3.
07	<input type="checkbox"/>	<p>160.9(f)4: Condensate drainage piping. An approved receptacle that is sized per the California Plumbing Code for condensate drainage shall be installed within 3 feet of the reserved heat pump location, or piping shall be installed from within 3 feet of the reserved heat pump location to an approved discharge location that is sized in accordance with the California Plumbing Code, and meet the following: <i>Dropdown options (only the one that is selected shows up):</i></p> <ul style="list-style-type: none"> - Condensate drainage shall be sized to serve a heat pump water heater system that meets the total building hot water demand as calculated and documented by the responsible person associated with the project. - Condensate drainage piping shall be sized to meet the requirements specified in Joint Appendix JA15.2.4.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****J. POOL & SPAs**

This table documents compliance with mandatory pool/spa requirements in §110.4/§160.7.

Is the pool/spa heated?	Heated/Not Heated								
01	02	03	04	05	06	07	08	09	10
Pool/ Spa Description	Pool/Spa Service Type	Efficiency	On/Off Control	Instructions	Covers	Heating Equipment	Heating Source Sizing	Piping	Pool Directional Inlets & Pump Control

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**Low-rise Multifamily and Multifamily Mixed-use Certificates of Installation**

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-PLB-E - Domestic Water Heating System	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-PLB-01-E - Multifamily Central Hot Water System Distribution	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-PLB-02-E - Individual Dwelling Unit Hot Water System Distribution	<input type="checkbox"/>	<input type="checkbox"/>

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance Applicable to service water heating requirements.

M. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION**Low-rise Multifamily and Multifamily Mixed-use Certificates of Verification**

There are no certificates of verification for low-rise multifamily and mixed-use buildings complying prescriptively.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PLB-01-E
Domestic Water Heating System	(Page 1 of 3)

A. General Information

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Select the applicable Occupancy Types within the project.

B. Project Scope

1. Select whether the project is New or Altered.
2. System Type: Select from dropdown.
3. Select the System Components.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through H.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. Domestic Hot Water Equipment

Equipment Schedule: Water Heater Efficiency and Standby Loss

3. Enter the System Name.
4. Exception to §140.5(c)/§170.2(d)3: Select from dropdown.
5. Check the box if the Capacity-weight efficiencies for gas systems $\geq 1\text{MMBtu/h}$
6. This field is filled out automatically.
7. Enter the Name or Item Tag.
8. Equipment Type: Select from dropdown.
9. Enter the Volume.
10. Enter the Rated Input Capacity.
11. Enter the Rated Efficiency.
12. This field is filled out automatically.
13. This field is filled out automatically
14. Enter the Designed Standby Loss.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PLB-01-E
Domestic Water Heating System	(Page 2 of 3)

15. This field is filled out automatically

Water Heating Equipment in Individual Dwelling Units

16. Select the applicable equipment within the project.

17. Select if the project meets the listed requirements.

Water Heating Equipment All Occupancies

18–21. Select if the project meets the listed requirements.

Water Heating Equipment for Central Systems Serving Dwelling Units

22. Select the applicable equipment within the project.

G. Domestic Hot Water Distribution System

Recirculation Loops in Central Systems Serving Dwelling Units or Nonresidential Spaces

1-9. Select if the project meets the listed requirements.

Distribution of Individual System(s) serving Dwelling Units

10-12. Select if the project meets the listed requirements.

Mandatory Pipe Insulation All Occupancies

13-15. Select if the project meets the listed requirements.

H. Domestic Hot Water System Controls

1-8. Select if the project meets the listed requirements.

I. ELECTRIC READY BUILDINGS

1-7. Select if the project meets the listed requirements.

J. POOL & SPAS

1. Enter the Pool/Spa Description
2. Enter Pool/Spa service type
3. Enter Efficiency
4. Enter On/Off control
5. Enter Instructions
6. Enter Covers
7. Enter Heating equipment

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PLB-01-E
Domestic Water Heating System	(Page 3 of 3)

8. Enter Heating Source Sizing
9. Enter Piping
10. Enter Pool Directional Inlets & Pump Control.

K. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

M. Declaration of Required Certificates of Verification

There are no Certificates of Verification for low-rise multifamily and mixed-use buildings complying prescriptively.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This form is used to document any process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6/ §160.7, or prescriptive requirements in §140.9. This compliance document is used for newly constructed, addition and alteration projects.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area			
02	Climate Zone		05	Total-Unconditioned Floor Area			
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)			
<input type="checkbox"/>	Office	<input type="checkbox"/>	Retail	<input type="checkbox"/>	Warehouse	<input type="checkbox"/>	Grocery
<input type="checkbox"/>	Hotel/ Motel	<input type="checkbox"/>	School or Classroom	<input type="checkbox"/>	Healthcare facility	<input type="checkbox"/>	Financial Institution
<input type="checkbox"/>	High-Rise Residential	<input type="checkbox"/>	Relocatable Public School	<input type="checkbox"/>	All Other Occupancy Types	<input type="checkbox"/>	Unleased Tenant Space
<input type="checkbox"/>	Auditorium	<input type="checkbox"/>	Library	<input type="checkbox"/>	Restaurant	<input type="checkbox"/>	Parking Garage
<input type="checkbox"/>	Convention Center	<input type="checkbox"/>	Medical Office Bldg/ Clinic	<input type="checkbox"/>	Theater	<input type="checkbox"/>	Religious Facility
<input type="checkbox"/>	Commercial Industrial	<input type="checkbox"/>	Data Center	<input type="checkbox"/>	Gymnasium	<input type="checkbox"/>	Support Area

Alert! Healthcare Facilities do not have to meet the elevator, commercial kitchen, or lab exhaust requirements under Title 24, Part 6 and therefore are not documented on the LMCC-PRC-E. The corresponding tables (K, N, O) say "This section does not apply" when healthcare facility has been chosen as an occupancy within Table A. Systems serving these spaces shall meet the requirements of the Appliance Efficiency Regulations for walk-in coolers or freezers contained in the Appliance Efficiency Regulations (California Code of Regulations, Title 20, Sections 1601 through 1608).

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

This table includes process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6/§160.7 or prescriptive requirements in §140.9.

My project consists of (check all that apply):

01		02	
<input type="checkbox"/>	Enclosed Parking Garage Exhaust \geq 10,000 cfm (mandatory §120.6(c))	<input type="checkbox"/>	Commercial Kitchen Ventilation/Exhaust (prescriptive §140.9(b)) ¹
<input type="checkbox"/>	Elevator Lighting & Ventilation Controls (mandatory §120.6(f)/§160.7)		

¹ FOOTNOTE: These building features can comply using the performance method. If using the performance method for these features, compliance should be demonstrated on the LMCC-PRF-E compliance document.

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through R.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

01	02	03	04	05	06	07	08	09	10	11	12	13
Refrigerated Warehouse/ Space §120.6(a)	Commercial Refrigeration §120.6(b)	Parking Garage Exhaust §120.6(c)	Process Boilers §120.6(d)	Compressed Air Systems §120.6(e)	Elevators §120.6(f)/ §160.7	Escalators & Moving Walkways §120.6(g)	Computer Rooms §140.9(a)	Commercial Kitchens §140.9(b)	Laboratory/ Factory Exhaust §140.9(c)	Controlled Environment Horticulture §120.6(h)	Steam Traps §120.6(i)	Compliance Results
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	(See Table N)	(See Table O)	(See Table P)	(See Table Q)	
Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	Yes/No	COMPLIES or "COMPLIES WITH EXCEPTIONAL CONDITIONS" or DOES NOT COMPLY

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

--

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****E. ADDITIONAL REMARKS**

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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H. ENCLOSED PARKING GARAGE EXHAUST

This table includes all newly installed mechanical ventilation systems which serve parking garages and have a design exhaust rate greater than or equal to 10,000 cfm. The inputs of Table H are used to demonstrate compliance with the requirements of §120.6(c).

	Yes	Exceptions				
01	<input type="checkbox"/>	Garage is expected to have vehicles with non-gasoline combustion engines for > 20% of the parked vehicles per Exception 1 to §120.6(c)				
02	<input type="checkbox"/>	Project scope includes an addition or alteration to an existing garage where < 10,000 cfm of new exhaust capacity is being added Exception 2 to §120.6(c)				
	Yes	Requirements				
03	<input type="checkbox"/>	Exhaust fan control modulates airflow rates \leq 50% design capacity when contaminant levels are maintained per §120.6(c)1				
04	<input type="checkbox"/>	Fan control or device allows fan motor demand \leq 30% design wattages at 50% of design airflow per §120.6(c)2				
05	<input type="checkbox"/>	Design includes monitoring CO with a sensor density \geq 1 per 5,000 ft ² per §120.6(c)3				
06	<input type="checkbox"/>	CO sensors are located in the highest expected concentration locations, with at least two per proximity zone per §120.6(c)3				
07	<input type="checkbox"/>	Design CO sensor setpoint \leq 25 ppm per §120.6(c)4				
08	<input type="checkbox"/>	Occupied garage design maintains negative pressurization per §120.6(c)6				
09	<input type="checkbox"/>	Designed occupied total ventilation rate \geq 0.15 CFM/ ft ² §120.6(c)5				
		10	11	12	13	14
		Fan Name	Parking Garage Area (ft ²)	Ventilation Fan Rate (CFM)	Minimum Ventilation Rate Required (CFM)	Compliant?
15		Indicate where in the construction documents these requirements can be verified				

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****K. ELEVATOR LIGHTING AND VENTILATION**

This table includes all elevator lighting and ventilation systems within the scope of the permit application to show compliance with the requirements of §120.6(f)/ §160.7.

01	02	03	04	05	06	07	08
Lighting §120.6(f)1 & §120.6(f)3 / §160.7							
Elevator Name or Item Tag	Elevator Area (ft2)	Fixture Name or Item Tag	Watts per Fixture	Number of Fixtures	Power per Design (W)	Maximum Power Allowed ¹ (W)	Controls
		Total Design Watts					
09	10	11	12	13	14	15	
Name or Item Tag	Conditioned Cab?	Ventilation §120.6(f)2 & §120.6(f)3/ §160.7					
		Fan Power (Watts)	Design Airflow (CFM)	Design Watts per CFM	Maximum Watts per CFM Allowed	Controls	
16	Indicate where in the construction documents these requirements can be verified						

¹ FOOTNOTE: 0.6 watts per ft2 allowed per §120.6(f)1. Interior signal lighting and display lighting not included in power density calculation.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION**

This table contains all new or replacement hoods being installed within the scope of the permit application. The inputs within Table N are used to demonstrate compliance within §140.9(b).

Kitchen Ventilation §140.9(b)2

01	<input type="checkbox"/>	Existing kitchen hoods not being replaced as part of an addition or alteration (do not need to meet requirements)
Requirements		
02	Replacement Air to Hood Compliance Method §140.9(b)1A	
03	Mechanically cooled or heated makeup air delivered to any space with a kitchen hood is designed per 140.9(b)2A to not exceed the greater of:	
04	Location that is supplying transfer air:	
05	The kitchen /dining facility has a total Type I and Type II kitchen hood exhaust airflow rate > 5000 cfm and is designed to have one of the following per 140.9(b)2B:	

Kitchen Exhaust: Airflow Rate §140.9(b)1B

01	Kitchen Name or Tag	Compliance Method per §140.9(b)1B				
02	03	04	05	06	07	08
Name or Item Tag	Hood Type ¹	Hood Style	Hood Length (ft)	Equipment Duty	Design Hood Exhaust Rate (CFM)	Max Hood Exhaust Rate Allowed (CFM)

¹ FOOTNOTE: Type II hoods do not have a max hood exhaust air rate per Part 6 §140.9(b)1B.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****Electric Ready Commercial Kitchens §120.6(k)**

This table includes electrical system requirements that must be met when using gas or propane in newly constructed commercial kitchens to demonstrate compliance with §120.6(k).

01	Newly constructed commercial kitchen:	<input type="checkbox"/> Uses gas or propane fuel.	<input type="checkbox"/> All-electric kitchen.	<input type="checkbox"/> Is within a healthcare facility.

Mandatory requirements for commercial kitchens

	Yes	Requirement
02	<input type="checkbox"/>	Includes a dedicated branch circuit wiring and outlet accessible to cookline appliances and meets the following requirements: a) The branch circuit conductors shall be rated at 50 amps minimum. b) The electrical service panel shall have a minimum capacity of 800 connected amps.
03	<input type="checkbox"/>	The electrical service panel shall be sized to accommodate an additional either 208v or 240v 50-amp breaker.

S. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-PRC-E Covered Process	<input type="checkbox"/>	<input type="checkbox"/>

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

Registration Number:

Registration Date/Time:

Registration Provider:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PRC-E
Process Systems	(Page 1 of 3)

A. General Information

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Select the applicable Occupancy Types within the Project.
4. Enter the Total Conditioned Floor Area.
5. Enter the Total Unconditioned Floor Area.
6. Enter the Number of Stories Above Grade.

B. Project Scope

- 1-2. Select the process systems that are included in the project.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through R.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

H. Enclosed Parking Garage Exhaust

- 1-9. Check Yes to verify your project meets the requirements.
10. Enter the Fan Name.
11. Enter the parking Garage Area.
12. Enter the Ventilation Fan Rate.
13. This field is filled out automatically.
14. This field is filled out automatically.

K. Elevator Lighting and Ventilation

1. Enter the Elevator Name or Item Tag.
2. Enter the Elevator Area.
3. Enter the Fixture Name or Item Tag.
4. Enter the Watts per Fixture.
5. Enter the Number of Fixtures.
6. This field is filled out automatically.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PRC-E
Process Systems	(Page 2 of 3)

7. This field is filled out automatically.
8. Controls: Select from dropdown.
9. This field is filled out automatically.
10. Conditioned Cab?: Select from dropdown.
11. Enter the Fan Power.
12. Enter the Design Airflow.
13. This field is filled out automatically.
14. This field is filled out automatically.
15. Controls: Select from dropdown.

N. Commercial Kitchen Exhaust and Ventilation

Kitchen Ventilation

1. Check if the existing kitchen hoods are not being replaced as part of an addition or alteration.
2. Replacement Air to Hood Compliance Method: Select from dropdown.
3. Mechanically cooled or heated makeup air delivered to any space with a kitchen hood is designed: Select from dropdown.
4. Enter the Location that is Supplying Transfer Air.
5. The kitchen /dining facility has a total Type I and Type II kitchen hood exhaust airflow rate > 5000 cfm and is designed to have one of the following: Select from dropdown.

Kitchen Exhaust: Airflow Rate

1. Enter the Kitchen Name or Tag.
Compliance Method: Select from dropdown.
2. Enter the Name or Item Tag.
3. Hood Type: Select from dropdown.
4. Hood Style: Select from dropdown.
5. Enter the Hood Length.
6. Equipment Duty: Select from dropdown.
7. Enter the Design Hood Exhaust Rate.
8. This field is filled out automatically.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	LMCC-PRC-E
Process Systems	(Page 3 of 3)

S. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

FOR INFORMATION AND DATA COLLECTION ONLY. NOT VALID UNTIL REGISTERED WITH AN ECC PROVIDER.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****CERTIFICATE OF COMPLIANCE**

This document is used to demonstrate compliance with prescriptive PV and battery requirements in §140.10/§170.2 for low-rise multifamily and low-rise mixed-use buildings and prescriptive solar thermal requirements in §170.2(d)3C for low-rise multifamily and hotel/motel occupancies. When PV/battery/solar thermal requirements don't apply or are traded using the performance approach, this document demonstrates compliance with mandatory solar readiness requirements in §110.10/ §160.8 for newly constructed buildings which are low-rise multifamily or low-rise mixed-use. It is also used to demonstrate compliance with solar readiness in §160.8 for additions to low-rise multifamily which add more than 2,000 ft² of roof area. Alterations, or additions of less than 2,000 ft² of roof area, are not required to comply with solar readiness, solar PV and battery requirements and do not need to complete this document.

Project Name:	Enforcement Agency:
Dwelling Address:	Permit Number:
City and Zip Code:	Date Permit Issued:

A. GENERAL INFORMATION

01	Project Location (city)	04	Building Occupancies
02	Climate Zone	05	Construction Type
03	Square Footage of Building (ft ²)	06	Number of Stories

STOP! Alterations, or additions that increase roof area by $\leq 2,000$ ft², are not required to comply with requirements in §110.10/§140.10/§170.2(g and h) and do not need to complete this compliance document.

STOP! Healthcare facilities are not required to comply with the requirements of §110.10/§140.10/§170.2(g and h) and do not need to complete this compliance document.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****B. PROJECT SCOPE**

The compliance path the project is using to comply per §110.10(b)1B/§170.2(f) is indicated below.

Compliance with Solar Readiness Requirements in §110.10(b)1B

01		
<input type="checkbox"/>	Provide Solar Ready Area no exceptions	The project has allocated a solar zone on the roof plan per requirements in §110.10(b), as documented in Table F.
<input type="checkbox"/>	Exception to Solar Ready Area: Smart Thermostat and Alternative Energy Efficiency Measure	The project is a multifamily occupancy where all thermostats in each dwelling unit comply with §110.12(a) AND at least one additional measure listed in Exception 4 to §110.10(b)1B is installed, as documented in Table I.
<input type="checkbox"/>	Exception to Solar Ready Area: Roof is designed for vehicular traffic, parking or for heliport	Plan sheet showing roof designed for vehicular traffic, parking, or heliport:
<input type="checkbox"/>	Exception to Solar Ready Area: Roof too small	The project is new construction and has a total roof area ≤ 533 square feet. ¹

¹ FOOTNOTE: Buildings with roof area ≤ 533 ft² would have a required solar zone < 80 ft² and are therefore exempt per §110.10(b)1.

Compliance with Solar Photovoltaic (PV) Requirements in §170.2 (f)

01		
<input type="checkbox"/>	Provided PV system sized per §170.2(f)	The project has included an installed PV system per requirements in §170.2(f), as documented in Table J.
<input type="checkbox"/>	Exception to PV & Battery: Required PV < 4 kW	The required PV system capacity is less than 4 kWdc as documented in Table J.
<input type="checkbox"/>	Exception to PV & Battery: No contiguous Solar Access Roof Area	The Solar Access Roof Area(s) of the project site contains less than 80 contiguous square feet as documented in Table J.
<input type="checkbox"/>	Exception to PV & Battery: Can't meet snow load	The project has a roof design where the enforcement authority has verified it is not possible for the PV system, including panels, modules, components, supports, and attachments to the roof structure, to meet ASCE 7-16, Chapter 7, Snow Loads.

Compliance with Solar Thermal Water Heating Requirements in §170.2(d)Bii(Multifamily and Hotel/motel occupancies only)

01	
<input type="checkbox"/>	The project includes a hotel/motel or multifamily occupancy with a gas or propane central water-heating system (serves 2+ dwelling units) and includes a permanently installed domestic solar water-heating system to comply with §170.2(d)2Bii and Reference Residential Appendix RA4, as documented in Table H.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****C. COMPLIANCE RESULTS**

Results in this table are automatically calculated from data input and calculations in Tables F through I.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

Allocated Solar Zone			OR	Installed PV System			OR	Installed SWH System			OR	Smart Tstat and Alternative EE Measure		Compliance Results
01		02		03		04		05		06		07	08	09
Required Minimum Area (ft ²)	≤	Designated Area (ft ²)	OR	Required Minimum DC Power Rating (Watts)	≤	Designed DC Power Rating (Watts)	OR	Required Minimum Solar Savings Fraction	≤	Designed/ Rated Solar Savings Fraction	OR	JA5 Compliant Thermostat Specified?	Alternative Energy Efficiency Measure	COMPLIES or DOES NOT COMPLY or COMPLIES with Exceptions
(See Table F)				(See Tables G or J)				(See Table H)				(See Table I)		
	≤		OR		≤		OR		≤		OR			
			Location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/ plumbing to the electrical service/ water heating system per §110.10(c).										COMPLIES or DOES NOT COMPLY or Not Applicable	
Battery storage system design meets the minimum requirements in Joint Appendix JA12 and the minimum energy (kWh)/ power (kW) capacity per Table J.													COMPLIES or DOES NOT COMPLY or Not Applicable	

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

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E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****F. ALLOCATED SOLAR ZONE**

This table is completed if the project is designating a solar zone to comply with §110.10(b)1B. New construction considers the total roof area; Additions consider only newly added roof area.

This table demonstrates that the project has designated the minimum area required for the Allocated Solar Zone, and also that the requirements for Solar Zone Subareas have been met. Each subarea must be shown on a roof plan or documented in construction documents. The solar zones must also comply with fire code requirements, including, but not limited to, setback and pathway requirements. Requirements for interconnection pathways must also be included in construction documents, and the location is specified in this table.

Required Minimum Solar Zone

01	02	03	04	05	06			07	08
Minimum Solar Zone Area Calculation Method	Total New or Added Roof Area (ft ²)	Total New or Added Roof Area Covered with Skylights (ft ²)	Minimum Solar Zone Based on Total or Added Roof Area (0.15 x (Roof-Skylit)) (ft ²)	Method/Tool(s) Used to Determine Annual Solar Access for Potential Zones ¹	Potential Solar Zone Areas: Roof Areas with ≥ 70% Solar Access			Minimum Solar Zone Based on Potential Zone (0.5 x (Total Potential Zone)) (ft ²)	Required Minimum Solar Zone Area (ft ²)
					Low-Sloped Area (≤ 2:12 pitch) (ft ²)	Steep-Sloped Area (> 2:12 pitch), Oriented 90° - 300° (ft ²)	Total Potential Solar Zone Area (ft ²)		

Designated Solar Zone Subareas

09	10	11	12	13	14	15	16	17	18	19
Subarea Name or Tag	Building Plan Reference	Roof or Overhang Slope (Low ≤ 2:12 pitch) (Steep > 2:12 pitch)	Is Steep-Sloped Roof or Overhang between 90 and 300 degrees?	Subarea Complies with Title 24, Part 9	Solar Zone Subarea Free of Obstructions per §110.10(b)3A	Subarea is Required Distance from Potential Obstructions per §110.10(b)3B	Is the Smallest Dimension 5 feet or greater?	Min. Area Required per Subarea (ft ²)	Designated Area (ft ²)	Subarea Complies?
Total Designated Solar Zone Area (ft²):										
Interconnection Pathways										
Location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/ plumbing to the electrical service/ water heating system per §110.10(c).										

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS**

¹ FOOTNOTE: This field is used to document how the percentage of annual solar access was determined per §110.10(b)1B. Solar access is the ratio of solar insolation including shade to the solar insolation without shade. Shading from obstructions located on the roof or any other part of the building shall not be included in the determination of annual solar access.

G. PERMANENTLY INSTALLED SOLAR PV FOR SOLAR READY EXCEPTION

This table is completed if the project is installing a PV system to comply with §110.10(b)1B Exception 1.

01	02	03	04	05	
Total Roof Area ¹ (ft ²)	Required Minimum DC Power Rating (Watts)	Designed System DC Power Rating (Watts)	Location in Construction Documents showing PV System/ Components	Field Inspector	
				Pass	Fail
				<input type="checkbox"/>	<input type="checkbox"/>

¹ FOOTNOTES: Newly Constructed Projects should report total roof area; Additions should report newly added roof area.

H. PERMANENTLY INSTALLED SOLAR HOT WATER SYSTEM

This table is completed if the project is installing a solar water heating (SWH) system to comply with §110.10(b)1B Exception 2 or for multifamily/ hotel/ motel occupancies to demonstrate compliance with §170.2(d)2Bii.

OG-100 Certified Collectors			The SWH system is built-up and specifies collectors certified by the Solar Rating & Certification Company (SRCC) or the International Association of Plumbing & Mechanical Officials (IAPMO) as OG-100.		
<input type="checkbox"/>	Drain Water Heat Recovery		A drain water heat recovery system that is field verified by a HERS Rater as specified in the Reference Appendix RA3.6.9 is being used to lower the required Solar Savings Fraction per §170.2(d)2Bii.		
01	02	03	04	05	
SRCC # or IAPMO File #	Certification #	Designed Solar Savings Fraction for OG-100	Output from CEC's T24 SWH Calculator Attached ¹	Field Inspector	
				Pass	Fail
				<input type="checkbox"/>	<input type="checkbox"/>

¹ FOOTNOTES:-Built-up SWH systems using OG-100 collectors must calculate the Designed Solar Savings Fraction using the SWH module in the CEC's CBECC software. The calculation output must be included within the permit application.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****I. SMART THERMOSTATS AND ALTERNATIVE EFFICIENCY MEASURE FOR SOLAR READY EXCEPTION**

This table indicates thermostats compliant with §110.12(a) have been specified and which additional energy efficiency measure has been included in the design for high-rise multifamily occupancies complying with Exception 4 to §110.10(b)1B.

01		
Smart Thermostats		
<input type="checkbox"/>	The contract documents clearly specify that all thermostats in each dwelling unit comply with §110.12(a) prior to granting of an occupancy permit by the enforcing agency.	
Location in contract documents:		
02		
Alternative Efficiency Measure		
In addition, my project consists of (check at least one):		
<input type="checkbox"/>	Energy Star Appliances and EC Motor	The contract documents include an ENERGY STAR dishwasher AND EITHER an ENERGY STAR refrigerator OR a whole house fan driven by an electronically commutated motor.
<input type="checkbox"/>	Home Automation System	The contract documents include a home automation system that is capable of, at a minimum, controlling the appliances and lighting of the dwelling and responding to demand response signals.
<input type="checkbox"/>	Greywater irrigation system	The contract documents include alternative plumbing piping to permit the discharge from the clothes washer and all showers and bathtubs to be used for an irrigation system in compliance with the California Plumbing Code and any applicable local ordinances.
<input type="checkbox"/>	Rainwater Catchment System	The contract documents include a rainwater catchment system designed to comply with the California Plumbing Code and any applicable local ordinances, and that uses rainwater flowing from at least 65% of the available roof area.
<input type="checkbox"/>	Part 11: Electric Vehicle Charging Space	The contract documents demonstrate compliance with Title 24, Part 11, §A4.106.8.2 requirements for electric vehicle charging spaces.
Location in contract documents:		

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****J. PHOTOVOLTAIC (PV) SYSTEMS**

This table documents compliance with prescriptive photovoltaic and battery system requirements in §140.10/§170.2(g & h). Unless the project meets one of the listed exceptions or trades-off PV in an energy model using the performance path, §140.10/§170.2(g & h) requires installed photovoltaic and battery systems for newly constructed buildings. The installed PV systems must meet the minimum requirements in Joint Appendix 11.

Photovoltaic (PV) System**Equation 170.2-C Calculation Method**

01	02	03	04	05
Multifamily Building Name	Conditioned Floor Area (ft ²)	# of Dwelling Units	Usable Capacity of BESS ⁴ (kWh)	Min Capacity of PV System Required (kW _{dc})

SARA Calculation Method

06	07	08	09	10	11	12	13
Roof Name	Roof Slope	Area of New Roof ¹ (ft ²)	Roof Area < 70% Solar Access ² (ft ²)	Plansheet or Document showing Solar Access Calculations	Roof area occupied, no structural support, not available due to other state codes, < 80 contiguous ft ² ⁵	Solar Access Roof Area (SARA) (ft ²)	Min Capacity of PV System Required (kW _{dc})
						-	
						Total Min Size PV System Required for all Roofs (kW_{dc}):	
						Total Size PV System in Design (kW_{dc}):	

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION**

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-SAB-E - Must be submitted for all buildings that must comply with solar readiness or PV/Battery requirements.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	LMCI-STH-01-E - Must be submitted for all buildings that include a solar water heating system.	<input type="checkbox"/>	<input type="checkbox"/>

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to solar readiness or PV/battery requirements.

**SAMPLE FORM – NOT VALID FOR SUBMISSION TO BUILDING DEPARTMENTS****DOCUMENTATION AUTHOR'S DECLARATION STATEMENT**

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/AEA/ECC Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I understand that a registered copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building and shall be made available to the enforcement agency for all applicable inspections. I will take the necessary steps to fulfill this requirement.
6. I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy. I will take the necessary steps to fulfill this requirement.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Responsible Person Scope:	
Address:	License:
City/State/Zip:	Phone:

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	NRCC-SAB-E
Solar and Battery	(Page 1 of 4)

A. General Information

1. Enter the City the project is located in.
2. Climate Zone: Select from dropdown.
3. Enter the Conditioned Floor Area.
4. Building Occupancies: Select from dropdown.
5. Construction Type: Select from dropdown.
6. Number of Stories: Select from dropdown.

B. Project Scope

Compliance with Solar Readiness Requirements in §110.10(b)1B

1. Select the project scope.

Compliance with Solar Photovoltaic (PV) and Battery Requirements in §140.10/§170.2 (g & h)

1. Select the project scope.

Compliance with Solar Thermal Water Heating Requirements in §170.2(d)3C (Multifamily and hotel/motel occupancies only)

1. Select if your project meets the requirements.

C. Compliance Results

1. Results in this table are automatically calculated from data input and calculations in Tables F through I.

D. Exceptional Conditions

1. This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. Additional Remarks

1. Enter any notes or comments for the AHJ.

F. Allocated Solar Zone

Required Minimum Solar Zone

1. Minimum Solar Zone Area Calculation Method: Select from dropdown.
2. Enter the Total New or Added Roof Area.
3. Enter the Total New or Added Roof Area Covered with Skylights.
4. This field is filled out automatically.
5. Enter the Method/Tools(s) Used to Determine Annual Solar Access for Potential Zones.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	NRCC-SAB-E
Solar and Battery	(Page 2 of 4)

6. Enter the Low-Sloped Area
Enter the Steep-Sloped Area
The Total Potential Solar Zone Area is filled out automatically.
7. This field is filled out automatically.
8. This field is filled out automatically.

Designated Solar Zone Subareas

9. Enter the Subarea Name or Tag.
10. Enter the Building Plan Reference.
11. Roof or Overhang Slope: Select from dropdown.
12. Is Steep-Sloped Roof or Overhang between 90 and 300 degrees?: Select Yes or No.
13. Subarea Complies with Title 24, Part 9: Select Yes or No.
14. Solar Zone Subarea Free of Obstructions: Select Yes or No.
15. Subarea is Required Distance from Potential Obstructions: Select Yes or No.
16. Is the Smallest Dimension 5 feet or greater?: Select Yes or No.
17. This field is filled out automatically.
18. Enter the Designated Area.
19. This field is filled out automatically.

Interconnection Pathways

Enter the location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/ plumbing to the electrical service/ water heating system.

G. Permanently Installed Solar PV for Solar Ready Exception

1. Enter the Total Roof Area.
2. This field is filled out automatically.
3. Enter the Designed System DC Power Rating.
4. Enter the Location in Construction Documents showing PV System/Components.
5. This is a Pass or Fail checkbox for the field inspector.

H. Permanently Installed Solar Hot Water System

1. SRCC # or IAPMO File #: Select from dropdown.
2. Enter the Certification #.
3. Enter the Designed Solar Savings Fraction for OG-100.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	NRCC-SAB-E
Solar and Battery	(Page 3 of 4)

4. Output from CEC's T24 SWH Calculator Attached: Select Yes to confirm.
5. This is a Pass or Fail checkbox for the field inspector.

I. Smart Thermostat and Alternative Efficiency Measure for Solar Ready Exception

1. Confirm that the contract documents specify that all thermostats comply with the requirements.
2. Select which measures apply to the project.

J. Photovoltaic (PV) and Battery Energy Storage Systems

Photovoltaic (PV) System

1. Enter the Multifamily Building Name.
2. Enter the Conditioned Floor Area (ft²).
3. Enter the # of Dwelling Units.
4. Enter the Usable Capacity of BESS (kWh).
5. Enter Min Capacity of PV System Required (kW_{dc}).

SARA Calculation Method

6. Enter the Roof Name
7. Enter the Roof Slope.
8. Enter the Area of New Roof (ft²).
9. Enter the Roof Area < 70% Solar Access (ft²).
10. This field is filled out automatically.
11. This field is filled out automatically.
12. This field is filled out automatically.
13. This field is filled out automatically.

K. Declaration of Required Certificates of Installation

1. Selections have been automatically made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

L. Declaration of Required Certificates of Acceptance

1. Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks.

CERTIFICATE OF COMPLIANCE – USER INSTRUCTIONS	NRCC-SAB-E
Solar and Battery	(Page 4 of 4)

Documentation Declaration Statements

1. The person who prepared the LMCC will sign and complete the fields for their name, company (if applicable), address, phone number, certification information (if applicable), date and signature.
2. The person who is assuming responsibility for the project being built to comply with Title 24, Part 6, will complete the fields for their name, company (if applicable), address, phone number, license number (if applicable), date and signature.

FOR INFORMATION AND DATA COLLECTION
ONLY. NOT VALID UNTIL REGISTERED
WITH AN ECC PROVIDER.