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MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR ONE- AND TWO-FAMILY RESIDENTIAL NEW CONSTRUCTION

These green building standards have been established to ensure that new construction in Marin County is healthy for occupants, has limited impact on the environment, reduces demand for energy, and results in cost savings from building operation. This guide is intended to help applicants understand the green building process and requirements that apply to their project.

GREEN BUILDING PROJECT PROCESS

1 PROJECT DESIGN

It is important for project owners, architects, engineers, and designers to understand the applicable state and local green building requirements prior to project design. Early consideration of these standards allows for design of buildings and systems that are compliant, energy efficient, and cost effective, and minimizes back and forth when applying for the project permit.

2 PLANNING APPLICATION (*IF REQUIRED*)

If your project is subject to planning review, be prepared to identify in your planning application what compliance methods you've selected and how you plan to meet the requirements. If you anticipate difficulties meeting the requirements outlined in the Green Building Checklist, these concerns and any requests for exemptions should be identified in your planning application.

3 INITIAL BUILDING PERMIT SUBMITTAL

Include the following with your initial application for a building permit:

- Completed Green Building Checklist (page 2 of this document)
- Completed CALGreen Checklist, with plan sheet references where applicable
- Title 24 Part 6 energy calculations demonstrating compliance with one of the energy efficiency compliance methods

▲ FINAL INSPECTION

When the project is completed, submit finalized checklists, including a Statement of Conformance from the applicable verifier attesting to the accuracy of the assessment, with the final permit materials to the building department to have the green building hold lifted.

DEFINITION OF "NEW CONSTRUCTION"

Removal or substantial modification of more than 75 percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building (County of Marin Development Code Chapter 22.130.030), triggering the new construction requirements.

MARIN COUNTY GREEN BUILDING CHECKLIST STANDARDS FOR ONE- AND TWO-FAMILY RESIDENTIAL NEW CONSTRUCTION

PROJECT ADDRESS:_____

APN: _____ APPLICANT NAME: _____

1. GREEN BUILDING

The permit application includes a completed County of Marin CALGreen Tier 1 checklist VERIFICATION: For the final hold to be lifted, the checklist must be completed and signed off on by a qualified green building rater, such as a CALGreen Special Inspector.

2. ELECTRIC VEHICLE (EV) READINESS

□ The completed County of Marin CALGreen Tier 1 checklist and plans demonstrate compliance with CALGreen Measure A4.106.8.1, which provides readiness for future Level 2 EV charging **VERIFICATION:** Completion of this measure should be confirmed by the qualified green building rater selected for the completion of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION (CHOOSE ONE)

Note: all projects must comply with mandatory elements of Title 24, Part 6 (California Energy Code) □ All Electric, which includes:

- All-electric end uses
- No natural gas or propane appliances
- No gas meters or propane infrastructure
- Compliance with energy efficiency standards required by the State (no additional local energy efficiency requirements)

□ Limited Mixed Fuel, which includes:

- All-electric end uses, with the exception of cooking appliances and gas fireplaces.
- Prewiring for future electric or induction stove
- Efficiency EDR compliance margin of 3, as demonstrated on the Title 24 Energy Reports
- □ **Mixed Fuel**, which includes:
 - Natural gas and electric allowed for all appliances
 - Prewiring for future electric or induction stove
 - Efficiency EDR compliance margin of 3, as demonstrated on the Title 24 Energy Reports
 - Total EDR compliance margin of 10, as demonstrated on the Title 24 Energy Reports

MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR ONE- AND TWO-FAMILY RESIDENTIAL ADDITIONS AND ALTERATIONS

These green building standards have been established so that residential additions and alterations move Marin County towards a housing stock that is healthy for occupants, has limited impact on the environment, reduces demand for energy, and saves the homeowner money over time. This guide is intended to help applicants understand the green building requirements that apply to their project and what documentation is necessary to comply with these standards.

GREEN BUILDING PROJECT PROCESS

PROJECT DESIGN

It is important for project owners, architects, engineers, and designers to understand the applicable state and local green building requirements prior to project design. Early consideration of these standards allows for design of buildings and systems that are compliant, energy efficient, and cost effective, and minimizes back and forth when applying for the project permit.

PLANNING APPLICATION (IF REQUIRED) 2

If your project is subject to planning review, be prepared to identify in your planning application what compliance methods you've selected and how you plan to meet the requirements. If you anticipate difficulties meeting the requirements outlined in the Green Building Checklist, these concerns and any requests for exemptions should be identified in your planning application.

3

INITIAL BUILDING PERMIT SUBMITTAL

Include the following with your initial application for a building permit:

- Completed Green Building Checklist (page 2 of this document)
- Completed CALGreen Checklist, with plan sheet references where applicable
- Title 24 Part 6 energy calculations demonstrating compliance with one of the energy ٠ efficiency compliance methods

FINAL INSPECTION 4

When the project is completed, submit finalized checklists, including a Statement of Conformance from the applicable verifier attesting to the accuracy of the assessment, with the final permit materials to the building department to have the green building hold lifted.

DEFINITION OF "NEW CONSTRUCTION"

Removal or substantial modification of more than 75 percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building (County of Marin Development Code Chapter 22.130.030), triggering the new construction requirements.

If your renovation project meets this definition, please see the guide for new construction.

MARIN COUNTY GREEN BUILDING CHECKLIST STANDARDS FOR ONE- AND TWO-FAMILY RESIDENTIAL ADDITIONS AND ALTERATIONS

PROJECT ADDRESS:

APN:

APPLICANT NAME:

1. GREEN BUILDING

FOR PROJECTS LESS THAN 1,200 SQUARE FEET

□ The permit application includes a completed County of Marin Mandatory CALGreen checklist **VERIFICATION:** The checklist will be verified by County plans examiners.

FOR PROJECTS GREATER THAN OR EQUAL TO 1,200 SQUARE FEET

□ The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified building professional, such as an architect, engineer, contractor, or qualified green building professional

2. ELECTRIC VEHICLE (EV) READINESS

FOR PROJECTS UPGRADING THE ELECTRICAL SERVICE PANEL

 \Box The completed County of Marin CALGreen Tier 1 checklist and plans demonstrate compliance with CALGreen Measure A4.106.8.1, which provides readiness for future Level 2 EV charging **VERIFICATION:** Completion of this measure should be confirmed by the verifier of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION

☐ Meet the standards outlined for the project in the 2019 Building Energy Efficiency Standards. While local standards for additions and alterations do not require applicants to exceed statewide energy efficiency codes, be aware of the mandatory requirements established by the state that may apply to your project. Changes that may trigger additional requirements or HERS verification may include, but are not limited to, the addition, alteration, or expansion of:

- Fenestration, including windows, skylights, and doors with more than 3 square feet of glass
- Insulation
- Ducts
- New space heating and cooling, water heating, and ventilation systems

MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR MULTIFAMILY RESIDENTIAL NEW CONSTRUCTION

These green building standards have been established to ensure that new construction in Marin County is healthy for occupants, has limited impact on the environment, reduces demand for energy, and results in cost savings from building operation. This guide is intended to help applicants understand the green building process and requirements that apply to their project.

GREEN BUILDING PROJECT PROCESS

1 PROJECT DESIGN

It is important for project owners, architects, engineers, and designers to understand the applicable state and local green building requirements prior to project design. Early consideration of these standards allows for design of buildings and systems that are compliant, energy efficient, and cost effective, and minimizes back and forth when applying for the project permit.

2 PLANNING APPLICATION (*IF REQUIRED*)

If your project is subject to planning review, be prepared to identify in your planning application what compliance methods you've selected and how you plan to meet the requirements. If you anticipate difficulties meeting the requirements outlined in the Green Building Checklist, these concerns and any requests for exemptions should be identified in your planning application.

3 INITIAL BUILDING PERMIT SUBMITTAL

Include the following with your initial application for a building permit:

- Completed Green Building Checklist (page 2 of this document)
- Completed CALGreen Checklist, with plan sheet references where applicable
- Title 24 Part 6 energy calculations demonstrating compliance with one of the energy efficiency compliance methods

▲ FINAL INSPECTION

When the project is completed, submit finalized checklists, including a Statement of Conformance from the applicable verifier attesting to the accuracy of the assessment, with the final permit materials to the building department to have the green building hold lifted.

DEFINITION OF "NEW CONSTRUCTION"

Removal or substantial modification of more than 75 percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building (County of Marin Development Code Chapter 22.130.030), triggering the new construction requirements.

MARIN COUNTY GREEN BUILDING CHECKLIST STANDARDS FOR MULTIFAMILY RESIDENTIAL NEW CONSTRUCTION FOR PROJECTS THREE STORIES OR FEWER

PROJECT ADDRESS:

APN: _____

APPLICANT NAME:

1. GREEN BUILDING

 \Box The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified green building rater, such as a CALGreen Special Inspector.

2. ELECTRIC VEHICLE (EV) READINESS

□ The completed County of Marin CALGreen Tier 1 checklist and plans demonstrate the project includes one electric vehicle space per dwelling unit, complying with technical requirements referenced in CALGreen Measure A4.106.8.2.1

VERIFICATION: Completion of this measure should be confirmed by the qualified green building rater selected for the completion of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION (CHOOSE ONE)

Note: all projects must comply with mandatory elements of Title 24, Part 6 (California Energy Code)

□ All Electric, which includes:

- All-electric end uses
- No natural gas or propane appliances
- No gas meters or propane infrastructure
- Compliance with energy efficiency standards required by the State (no additional local energy efficiency requirements)

□ Limited Mixed Fuel, which includes:

- All-electric end uses, with the exception of cooking appliances and gas fireplaces.
- Prewiring for future electric or induction stove
- Efficiency EDR compliance margin of 0.5, as demonstrated on the Title 24 Energy Reports

□ Mixed Fuel, which includes:

- Natural gas and electric allowed for all appliances
- Prewiring for future electric or induction stove
- Efficiency EDR compliance margin of 0.5, as demonstrated on the Title 24 Energy Reports
- Total EDR compliance margin of 10, as demonstrated on the Title 24 Energy Reports

MARIN COUNTY GREEN BUILDING CHECKLIST STANDARDS FOR MULTIFAMILY RESIDENTIAL NEW CONSTRUCTION FOR PROJECTS FOUR STORIES OR MORE

PROJECT ADDRESS:

APN: _____

APPLICANT NAME:

1. GREEN BUILDING

□ The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified green building rater, such as a CALGreen Special Inspector.

2. ELECTRIC VEHICLE (EV) READINESS

□ The completed County of Marin CALGreen Tier 1 checklist and plans demonstrate the project includes one electric vehicle space per dwelling unit, complying with technical requirements referenced in CALGreen Measure A4.106.8.2.1

VERIFICATION: Completion of this measure should be confirmed by the qualified green building rater selected for the completion of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION (CHOOSE ONE)

Note: all projects must comply with mandatory elements of Title 24, Part 6 (California Energy Code)

□ All Electric, which includes:

- All-electric end uses
- No natural gas or propane appliances
- No gas meters or propane infrastructure
- Compliance with energy efficiency standards required by the State (no additional local energy efficiency requirements)

□ Limited Mixed Fuel, which includes:

- All-electric end uses, with the exception of cooking appliances and gas fireplaces.
- Prewiring for future electric or induction stove
- Efficiency compliance margin of 5%, as demonstrated on the Title 24 Energy Reports

□ Mixed Fuel, which includes:

- Natural gas and electric allowed for all appliances
- Prewiring for future electric or induction stove

• Efficiency compliance margin of 10%, as demonstrated on the Title 24 Energy Reports **VERIFICATION:** Compliance will be verified via Title 24 Energy Reports by a HERS rater

MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR MULTIFAMILY RESIDENTIAL ADDITIONS AND ALTERATIONS

These green building standards have been established to ensure that new construction in Marin County is healthy for occupants, has limited impact on the environment, reduces demand for energy, and results in cost savings from building operation. This guide is intended to help applicants understand the green building process and requirements that apply to their project.

GREEN BUILDING PROJECT PROCESS

1 PROJECT DESIGN

It is important for project owners, architects, engineers, and designers to understand the applicable state and local green building requirements prior to project design. Early consideration of these standards allows for design of buildings and systems that are compliant, energy efficient, and cost effective, and minimizes back and forth when applying for the project permit.

2 PLANNING APPLICATION (*IF REQUIRED*)

If your project is subject to planning review, be prepared to identify in your planning application what compliance methods you've selected and how you plan to meet the requirements. If you anticipate difficulties meeting the requirements outlined in the Green Building Checklist, these concerns and any requests for exemptions should be identified in your planning application.

3 INITIAL BUILDING PERMIT SUBMITTAL

Include the following with your initial application for a building permit:

- Completed Green Building Checklist (page 2 of this document)
- Completed CALGreen Checklist, with plan sheet references where applicable
- Title 24 Part 6 energy calculations demonstrating compliance with one of the energy efficiency compliance methods

4 FINAL INSPECTION

When the project is completed, submit finalized checklists, including a Statement of Conformance from the applicable verifier attesting to the accuracy of the assessment, with the final permit materials to the building department to have the green building hold lifted.

DEFINITION OF "NEW CONSTRUCTION"

Removal or substantial modification of more than 75 percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building (County of Marin Development Code Chapter 22.130.030), triggering the new construction requirements.

If your renovation project meets this definition, please see the guide for new construction.

MARIN COUNTY GREEN BUILDING CHECKLIST

STANDARDS FOR MULTIFAMILY RESIDENTIAL ADDITIONS AND ALTERATIONS

PROJECT ADDRESS:_____

APN: _____ APPLICANT NAME: _____

1. GREEN BUILDING

FOR PROJECTS LESS THAN 1,200 SQUARE FEET

The permit application includes a completed County of Marin Mandatory CALGreen checklist **VERIFICATION:** The checklist will be verified by County plans examiners.

FOR PROJECTS GREATER THAN OR EQUAL TO 1,200 SQUARE FEET

The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified building professional, such as an architect, engineer, contractor, or qualified green building professional

2. ELECTRIC VEHICLE (EV) READINESS FOR PROJECTS UPGRADING THE ELECTRICAL SERVICE PANEL

□ Add designated electrical capacity for 20% of onsite parking spaces to be EV Capable.

FOR PROJECTS MODIFYING THE PARKING LOT

□ When parking lot surface is modified (paving material and curbing removed), add conduit to all exposed parking spaces. Where existing electrical service will not be upgraded in the existing project scope, designate capacity for parking spaces to the maximum extent that does not require an upgrade to existing electrical service

VERIFICATION: Completion of this measure should be confirmed by the verifier of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION

□ Meet the standards outlined for the project in the 2019 Building Energy Efficiency Standards. While local standards for additions and alterations do not require applicants to exceed statewide energy efficiency codes, be aware of the mandatory requirements established by the state that may apply to your project. Changes that may trigger additional requirements or HERS verification may include, but are not limited to, the addition, alteration, or expansion of:

- Fenestration, including windows, skylights, and doors with more than 3 square feet of glass
- Insulation
- Ducts •
- New space heating and cooling, water heating, and ventilation systems

MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR NONRESIDENTIAL NEW CONSTRUCTION

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GREEN BUILDING PROJECT PROCESS

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MARIN COUNTY GREEN BUILDING CHECKLIST STANDARDS FOR NONRESIDENTIAL NEW CONSTRUCTION

PROJECT ADDRESS:_____

APN: _____

APPLICANT NAME:_____

1. GREEN BUILDING

□ The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified green building rater, such as a CALGreen Special Inspector.

2. ELECTRIC VEHICLE (EV) READINESS (CHOOSE ONE)

□ 100% EV ready, which includes:

- Build 10% of spaces to be EV Ready and
- Build the remaining spaces to be EV Capable

□ EV installed, which includes

- Build 10% of spaces to be EV Ready, and
- Install EV Chargers in 5% of the EV Ready spaces, not less than two charging ports. Installation of EV supply equipment and chargers shall be in accordance with the *California Building Code* and the *California Electrical Code*.

VERIFICATION: Completion of this measure should be confirmed by the qualified green building rater selected for the completion of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION (CHOOSE ONE)

Note: all projects must comply with mandatory elements of Title 24, Part 6 (California Energy Code) All Electric, which includes:

- All-electric end uses
- No natural gas or propane appliances
- No gas meters or propane infrastructure
- Compliance with energy efficiency standards required by the State (no additional local energy efficiency requirements)

□ Limited Mixed Fuel, which includes:

- All-electric end uses, with the exception of cooking appliances and gas fireplaces.
- Prewiring for future electric or induction stove
- Compliance margin of 5%, as demonstrated on the Title 24 Energy Reports
- □ Mixed Fuel, which includes:
 - Natural gas and electric allowed for all appliances
 - Prewiring for future electric or induction stove
 - Efficiency compliance margin of 10%, as demonstrated on the Title 24 Energy Reports

MARIN COUNTY GREEN BUILDING GUIDE STANDARDS FOR NONRESIDENTIAL ADDITIONS AND ALTERATIONS

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DEFINITION OF "NEW CONSTRUCTION"

Removal or substantial modification of more than 75 percent of the linear sum of a building's exterior walls for each story shall be considered demolition of the building (County of Marin Development Code Chapter 22.130.030), triggering the new construction requirements.

If your renovation project meets this definition, please see the guide for new construction.

MARIN COUNTY GREEN BUILDING CHECKLIST

STANDARDS FOR NONRESIDENTIAL ADDITIONS AND ALTERATIONS

PROJECT ADDRESS:_____

APN: _____ APPLICANT NAME: _____

1. GREEN BUILDING

FOR PROJECTS LESS THAN 3,000 SQUARE FEET

The permit application includes a completed County of Marin Mandatory CALGreen checklist **VERIFICATION:** The checklist will be verified by County plans examiners.

FOR PROJECTS GREATER THAN OR EQUAL TO 3,000 SQUARE FEET

The permit application includes a completed County of Marin CALGreen Tier 1 checklist **VERIFICATION:** The checklist must be completed and signed off on by a qualified building professional, such as an architect, engineer, contractor, or qualified green building professional

2. ELECTRIC VEHICLE (EV) READINESS FOR PROJECTS UPGRADING THE ELECTRICAL SERVICE PANEL

□ Add designated electrical capacity for 20% of onsite parking spaces to be EV Capable.

FOR PROJECTS MODIFYING THE PARKING LOT

□ When parking lot surface is modified (paving material and curbing removed), add conduit to all exposed parking spaces. Where existing electrical service will not be upgraded in the existing project scope, designate capacity for parking spaces to the maximum extent that does not require an upgrade to existing electrical service

VERIFICATION: Completion of this measure should be confirmed by the verifier of the CALGreen Checklist.

3. ENERGY EFFICIENCY AND ELECTRIFICATION

□ Meet the standards outlined for the project in the 2019 Building Energy Efficiency Standards. While local standards for additions and alterations do not require applicants to exceed statewide energy efficiency codes, be aware of the mandatory requirements established by the state that may apply to your project. Changes that may trigger additional requirements or HERS verification may include, but are not limited to, the addition, alteration, or expansion of:

- Fenestration, including windows, skylights, and doors with more than 3 square feet of glass
- Insulation
- Ducts •
- New space heating and cooling, water heating, and ventilation systems