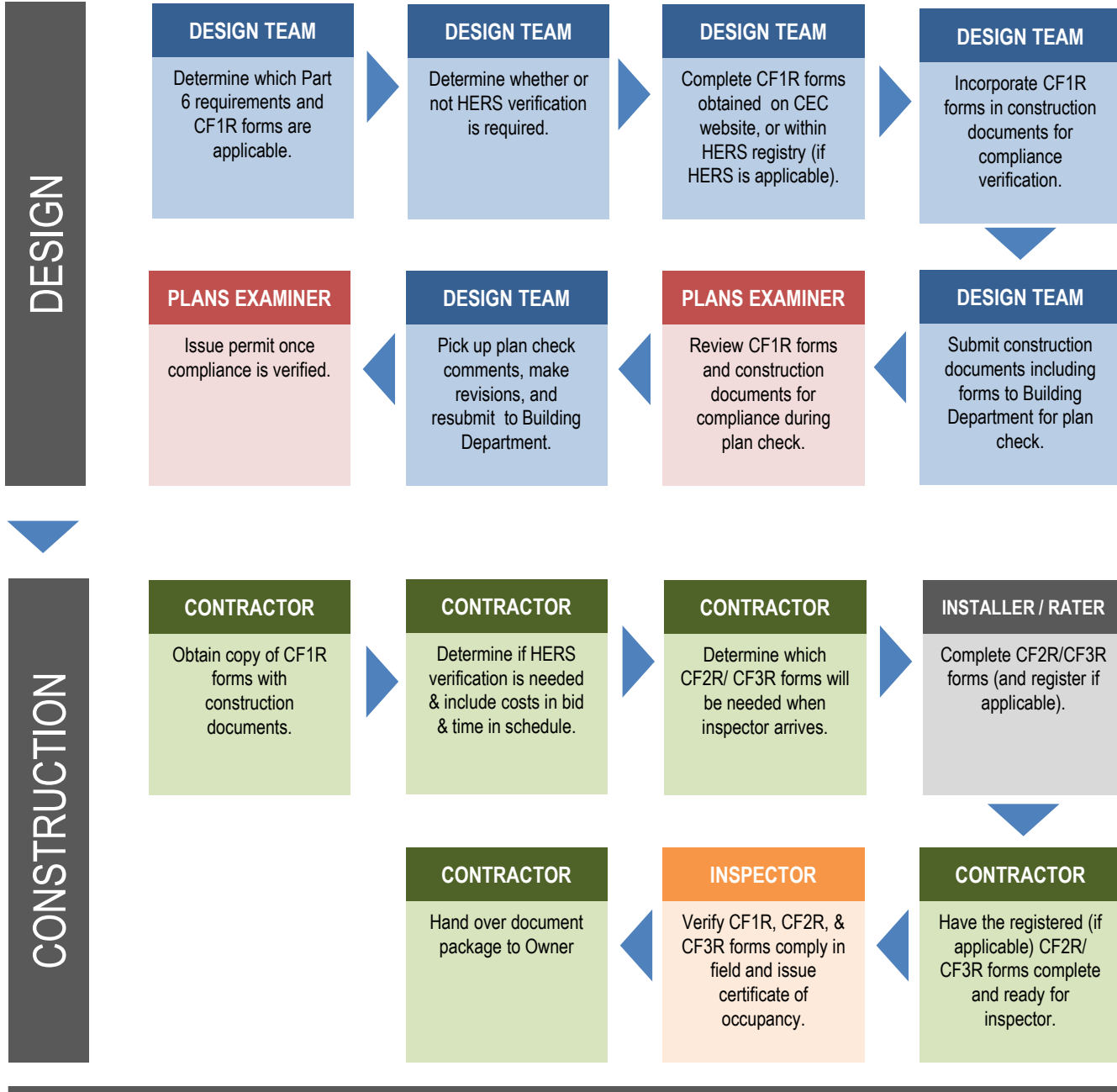


# Residential Prescriptive Flowchart





**DESIGNER:** determine which Part 6 requirements and CF1R forms are applicable.

1. Energy Code Ace has created Fact Sheets and Trigger Sheets to help you better understand which Sections of Part 6 might apply to your project scope. Fact Sheets provide abbreviated detail on the requirements.



[Click HERE to find Fact Sheets](#)

[Click HERE to find Trigger Sheets](#)

2. Current compliance forms are available on the CEC website.

[Click HERE to view a list of forms on the CEC website](#)

3. The Forms Ace tool was developed as a free resource to help identify which forms apply to a given scope of work.

[Click HERE to go to the Forms Ace tool](#)

4. Each discipline is responsible for completing CF1R forms applicable to their scope of work. Coordinate with the design team to ensure all applicable forms are completed.

Step 1 of 15





**DESIGNER:** Determine whether or not HERS verification is required.

Does your project require a HERS rater? Find out by using the HERS Measures Quick Reference Guide or the Forms Ace tool.



[Click HERE for the HERS Measures Quick Reference Guide](#)

[Click HERE to go to the Forms Ace tool](#)

If your project is an addition or alteration that does not require a HERS verification, include a CF1R without a watermark in construction documents. More detail on this can be found by going to the next step of this process.



2. If your project triggers a HERS verification, you can find a HERS Provider by visiting the CEC's HERS Providers and Raters page. A fee may apply when registering the CF-1R.

[Click HERE to visit HERS Providers and Raters page](#)

3. If your project is a minor alteration that does not require building plans to be submitted, you may consider pursuing the prescriptive path instead of the performance path.
4. Early collaboration with the Owner, HERS provider and Contractor is necessary to ensure that schedule and budget impacts are considered in the project bid.

### Tips & Tricks:



- Confused about what the forms mean? Read this [Fact Sheet](#) about the Permit Process, which includes a key to forms names.

Step 2 of 15





**DESIGNER:** Upload CF1R forms to the HERS registry.

1. Before applying for a building permit, the CF1R must be registered with a HERS Provider if the project requires HERS verification per the Standards (mandatory for all newly constructed buildings).



[Click HERE to go to the Forms Ace tool](#)

If your project is an addition or alteration that does not require a HERS verification, include a CF1R without a watermark in construction documents. More detail on this can be found by going to the next step of this process.

2. If your project is a minor alteration that does not require building plans to be submitted, the CF1R form does not have to be registered until permit final.



[Click HERE for the exact code language in 10-103\(a\)2](#)

3. Once you register your CF1R, the watermark will disappear, and a registration number will be shown in the footer of the document you download to include on the plan set.

**Tips & Tricks:**



- Confused about what the forms mean? Read this [Fact Sheet](#) about the Permit Process, which includes a key to forms names.

Step 3 of 15





**DESIGNER:** Incorporate CF1R forms into construction documents for compliance verification.

1. Make sure all relevant documents are included in the permit application package. Each building department has different requirements for application; if you're unsure of what your building department requires, contact them prior to submittal.
2. Building department permit fees vary, and many departments publish a Fee Schedule on their websites. Some jurisdictions may offer online permit options, which may result in fee reduction.
3. Incorporation of the CF1R forms into the documents can be done through a variety of methods. You can insert a PDF or JPEG file into the drawing set, but make sure it is readable. Many building departments state that 12 point is the smallest font size allowed.
4. Registered HERS documents should be "unlocked" for easier incorporation into CAD programs. Many free software services are available to convert a locked PDF to JPEG.
5. Building departments have access to all forms that have been uploaded to the HERS registry. To find project information, look on the footer of the forms. For example:



CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD			
Project Name: 1 Story Example Row 10		Calculation Date/Time: 10/11/17	
Calculation Description: 2016 Prescriptive by C12.12		Input File Name: 1story1.com	
<b>GENERAL INFORMATION</b>			
11	Project Name	1 Story Example Row 10	
12	Calculation Description	100 R2 C12 - Prescriptive with fan out	
13	Project Location	City: Row 10	
14	City	San Francisco, CA	68
15	Climate Zone	3B	67
16	Climate Zone	3B	68
17	Building Type	Single Family	11
18	Project Status	Final Construction	12
19	Total Code Floor Area (SF)	1700	19
20	Code Floor Area (SF)	1700	19
21	Additional Code Floor Area (SF)	0	0
22	Additional Code Floor Area (SF)	0	0
23	Additional Code Floor Area (SF)	0	0
		Number of Zones	1
		Number of Stories	1
		Number of Units	1
		Number of Appliances	1
		Glazing Percentage (%)	20.0%
<b>COMPLIANCE RESULTS</b>			
61	Building Does Not Comply		
62	This building incorporates features that require field testing and is eligible for a certified HERS rater under the supervision of a 2-CU approved HERS provider.		
63	This building incorporates one or more Special Features shown below.		

Registration Number: thisisnotareal#      Registration Date/Time: 5/5/55 5:55      HERS Provider: HERSRUS

CA Building Energy Efficiency Standards - 2016 Residential Compliance      Report Version: CF1R-04141016-574      Report Generated at: 4/29/2017 9:35:55 PM

**Tips & Tricks:**

- Maintain a good relationship with your Plans Examiners! Letting them know that you are willing to answer any questions or concerns to help the process go smoothly will go a long way. Including a cover letter with Title 24 documents about modeling issues, work-arounds, notes of concern or other important details, and your contact information is very helpful. The plans examiner may be able to simply call you with questions rather than requiring a re-submittal, saving everyone's time and money.

Step 4 of 15





**DESIGNER:** Submit construction documents including forms to Building Department for plan check.

1. The Plans Examiner reviews construction documents and the CF1R forms for Title 24, Part 6 energy code compliance.

Many resources are available to assist the design team in proper preparation of documents, as well as for Plans Examiners to refer to as they review them.



- Quick access to the Title 24, Part 6 Standards is available through the [Reference Ace](#).
- Fact and Trigger Sheets about Title 24, Part 6 are available in the [Resources](#) section of the [Energy Code Ace website](#).
- Checklists to ensure compliance are also available on the Energy Code Ace website [here](#).

### Tips & Tricks:



- Turnaround times vary widely among jurisdictions, anywhere from weeks to months. Inquire ahead of time in order to incorporate sufficient time into the project schedule.

Step 5 of 15





**Plans Examiner: Review CF1R forms and construction documents for compliance during plan check.**

1. The Plans Examiner reviews construction documents and the CF1R forms for Title 24, Part 6 energy code compliance.

Many resources are available to assist the design team in proper preparation of documents, as well as for Plans Examiners to refer to as they review them.



- Quick access to the Title 24, Part 6 Standards is available through the [Reference Ace](#).
  - Fact and Trigger Sheets about Title 24, Part 6 are available in the [Resources](#) section of the Energy Code Ace website.
  - Checklists to ensure compliance are also available on the Energy Code Ace website [here](#).
2. Plans examiners often have questions or comments about verification which will require either a response and/or resubmittal of documents. Fees may apply; contact your local building department to confirm.

## Step 6 of 15





**DESIGNER:** Pick up plan check comments, make revisions if necessary, and resubmit to the Building Department.

1. Plans examiners often have questions or comments about verification which will require either a response and/or resubmittal of documents. Fees may apply; contact your local building department to confirm.
2. If revisions to the energy model are required, documents may need to be resubmitted to the HERS registry as well.

### Tips & Tricks:

- Experience matters! The first few times going through this process may be a learning experience, but establishing a positive relationship with your local building department and taking note of lessons learned will ease the process over time.

Step 7 of 15







Plans Examiner: Issues permit once compliance is verified.



1. Team Coordination: the builder and any subcontractors will need to be invited to the project within the HERS registry, and new users will need to register on registry site.

**Tip:** It is important to note that when any subcontractor or installer changes during the project, forms must be registered to the HERS registry. This will include members of the design team and even installers or contractors who have finished their scope of work. Anticipate continued participation in the registry for the duration of the project and incorporate it into the budget and schedule!

2. The design team will turn over construction documents including CF1R forms and building permit to the general contractor. Be sure that any HERS measures or other Title 24, Part 6 specific information is clearly spelled out on the construction documents.

## Step 8 of 15





**Contractor:** obtain copy of CF1R forms along with other construction documents..

1. The general contractor should confirm that all Part 6 information is incorporated into the schedule as well as cost estimates.
2. Team Coordination:
  - Contact the designer with questions about the construction documents.
  - It may be helpful to request a copy of the Forms Ace output and/or a list of forms from the designer including which CF2R and CF3R forms are applicable.  
[Click HERE to go to the Forms Ace tool](#)
1. Building permit and other relevant documents should remain posted onsite for the duration of the project. These requirements can vary among departments, check with your jurisdiction to confirm what's required.

### Tips & Tricks:

- The CF2R forms are considered “Installation” forms, and documents what was installed. The installer of a feature will complete the applicable form. For instance, an insulation installer will complete the CF-2R-ENV-03-E, Insulation Certificate of Installation.
- The CF3R forms are considered “Verification” forms, and documents what was verified in the field. A HERS Rater will complete these forms.

Step 9 of 15





**Contractor:** determine if HERS verification is needed and include costs in bid as well as time in schedule.

1. Identify whether HERS verification is needed by checking the CF1R forms to see if any include a HERS registration number. The registration number can be found in the footer of the completed form, which is included in the construction document package from the designer.

GENERAL INFORMATION	
Project Name	1 Story Example Row 10
Calculation Description	2016 RES 2016 Prescriptive with the roof
Project Location	123 Main St
City	San Francisco, CA
Climate Zone	2-1C
Building Type	Single Family
Project Status	New Construction
Total Cond. Floor Area (FT <sup>2</sup> )	1500
Uncond. Floor Area (FT <sup>2</sup> )	1000
Additional Cond. Floor Area (FT <sup>2</sup> )	500
Additional Uncond. Floor Area (FT <sup>2</sup> )	500

Registration Number: thisisnotareal#

Registration Date/Time: 5/5/55 5:55

HERS Provider: HERSRUS

CA Building Energy Efficiency Standards - 2016 Residential Compliance

Report Version: CF1R-04141016-574

Report Generated at: 4/29/2017-9:35:55 PM

Registration Number: CA Building Energy Efficiency Standards - 2016 Residential Compliance

Registration Date/Time: 1/18/12 12:00:00 PM

HERS Provider: Report Generated at: 2016-03-29 10:41:07



2. If HERS verification is required, coordinate with a HERS Rater as early as possible to understand fees and schedule impacts, and build these into the project bid. Ask the designer if a HERS Rater was engaged during the design process. If not, a list of CEC approved Providers can be found by clicking the following link, and they may be able to help you find a local rater.  
[Click HERE to visit the CEC HERS Providers and Raters page](#)
3. HERS verification requirements should be carefully reviewed with the HERS rater to ensure all impacts to schedule and project costs are considered, including:
  - Sequencing installation to coincide with access required for testing
  - Scheduling site visits well in advance
  - Understanding general contractor, installer, and HERS rater roles and responsibilities

Step 10 of 15





**Contractor:** determine which CF2R/ CF3R forms will be needed when inspector arrives.

1. The general contractor and all subcontractors on the construction team must join the project on the HERS registry if HERS verification is required.



**It is important to note that changes to the project can trigger resubmittal of the CF2R and CF3R forms on the HERS registry, and may require signatures from various members of the team. It is the general contractor's responsibility to ensure forms are accurate and signatures are current.**

Triggers may include:

- Installed equipment is changed from specification
  - Installer or subcontractor changes from the original signatory
2. Applicable CF2R and CF3R forms may be required to be posted onsite during construction and inspections. The HERS registry can provide a list of necessary HERS related forms, and the Forms Ace can provide a list of all Part 6 forms applicable to the project.



[Click HERE to go to the Forms Ace tool](#)



3. Inspection requirements vary by jurisdiction. Check with your local building department to find out what needs to be inspected and when, as well as whether additional forms are required to be posted onsite.

### Tips & Tricks:



- Maintaining a good relationship with local building inspectors will ease the inspection process. Becoming familiar with a jurisdiction's scheduling availability, access requirements for specific building details, and understanding which documents to have available will help inspections to go smoothly the first time.

Step 11 of 15



**Installer and/or HERS Rater: completes CF2R/ CF3R forms (and register if applicable).**



1. Coordination with the general contractor is necessary to access the project within the registry if HERS verification is required. The installer will complete applicable CF2R forms within the registry, and keep hard copies onsite. If HERS verification is not required, CF2R forms may be filled out by hand and kept onsite.
2. The HERS Rater will complete applicable CF3R forms within the HERS registry. Check with your local jurisdiction to find out if hard copies are required onsite for the inspector.
3. Building inspectors have access to all projects on the HERS registry, and can locate a project by finding the registration number in the footer of the completed forms.

GENERAL INFORMATION		Registration Number: thisisnotareal#		Registration Date/Time: 5/5/55 5:55		HERS Provider: HERSRUS	
01	Project Name	1100 R2 (CEC) Protractor with 60 roof	CA Building Energy Efficiency Standards - 2016 Residential Compliance	Report Version: CF1R-04141016-574	Report Generated at: 4/29/2017-9:35:55 PM		
02	Calculation Description	1100 R2 (CEC) Protractor with 60 roof					
03	Project Location	City					
04	City	San Francisco, CA					
05	Zip	94104					
06	Climate Zone	2C2					
07	Building Type	High-Rise					
08	Project Status	Construction					
09	Total Cond. Floor Area (FT <sup>2</sup> )	100					
10	Uncond. Floor Area (FT <sup>2</sup> )	100					
11	Number of Stories	1					
12	Number of Units	1					
13	Number of Stories Available	1					
14	Number of Units Available	1					
15	Glazing Percentage (%)	20.0%					
16	Number of Stories	1					
17	Number of Units	1					
18	Number of Stories Available	1					
19	Number of Units Available	1					
20	Glazing Percentage (%)	20.0%					

COMPLIANCE RESULTS	
01	Building Does Not Comply
02	The building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more special features whose impact is not modeled by the software.

Registration Number: CA-Building Energy Efficiency Standards - 2016 Residential Compliance  
 Registration Date/Time: 5/5/55 5:55  
 HERS Provider: HERSRUS  
 Report Version: CF1R-04141016-574  
 Report Generated at: 2016-02-29 10:05:07



4. The Installation Ace tool includes pictures of compliant (and sometimes not compliant) installations related to Part 6. This tool is formatted to be printed and put into a binder as a guide that can be used in the field.

[Click HERE to go to the Installation Ace tool](#)



**Contractor:** have the registered (if applicable) CF2R/ CF3R forms complete and ready for inspector.



1. Keep a hard copy of completed CF2R and CF3R forms posted onsite for the duration of the project.
2. The inspector will verify the compliance forms onsite. Not having these forms available may require rescheduling the inspection. Often the inspector will visit the site multiple times per project. Coordinate with the local building department to confirm when specific forms should be posted.
3. Although jurisdictions aren't required to collect forms, some may take them.

Step 13 of 15





**Building Inspector:** Verify CF1R, CF2R, & CF3R forms comply in field and issue certificate of occupancy.

1. Inspector verifies that registered CF1R, 2R and 3R forms are current with what's installed.
2. Although jurisdictions aren't required to collect forms, some may take them.
3. Building inspectors have access to all projects on the HERS registry, and can locate a project by finding the registration number in the footer of the completed forms.

**Registration Number:** thisisnotreal#

**Registration Date/Time:** 5/5/55 5:55

**HERS Provider:** HERSRUS

**CA Building Energy Efficiency Standards - 2016 Residential Compliance**

**Report Version:** CF1R-04141016-574

**Report Generated at:** 4/29/2017-9:35:55 PM

Registration Number: CA Building Energy Efficiency Standards - 2016 Residential Compliance

Registration Date/Time: 5/5/55 5:55

HERS Provider: HERSRUS

Report Version: CF1R-04141016-574

Report Generated at: 4/29/2017-9:35:55 PM



3. The Installation Ace tool includes pictures of compliant (and sometimes not compliant) installations related to Part 6. This tool is formatted to be printed and put into a binder as a guide that can be used in the field.  
[Click HERE to go to the Installation Ace tool](#)
4. Energy Code Ace has created a Residential Building Inspector Checklist, which can be used by inspectors to focus on high priority inspection items. Notes from the plans examiner could also be used to prioritize field verification.  
[Click HERE to find the Residential Building Inspector Checklist](#)





**Contractor:** hand over document package to the owner.

1. Upon project completion, the general contractor or design team is required to leave Certificates of Compliance, Installation, Acceptance, and Field and Diagnostic Testing with the building owner per Section §10-103(b) of the Standards.

[Click HERE to read the exact code language in the Reference Ace](#)

Step 15 of 15

