

# Rater Roundtable

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RESNET Conference

February 19, 2008

Presented by

Robert Scott, Executive Director

CHEERS

# The CHEERS Approach

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CHEERS Registry Navigator©  
is the new approach to  
responding to the proposed  
changes to Title 24, but...

# Rater Roundtable

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First, we are now in the midst of a very important process



# Changes to Title 24 in 2008

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- Continuing emphasis on HERS-verified features
- Tighter control of compliance documentation (CF-1R, CF-6R, CF-4R)
- Opportunity to enhance Rater role in base energy compliance verification through NSHP

# Definitions

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## HERS Provider Data Registry

The database maintained by the HERS provider that contains the records of the HERS rater's field verification and diagnostic testing results, including dwelling unit identification information, test/certification identification information, and builder identification information.

# Proposed Requirements

## CF-1R

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For low-rise residential buildings for which compliance requires HERS field verification, the person or persons responsible for the Certificate of Compliance shall submit the Certificate for retention to a HERS provider data registry. Submittals to the HERS provider data registry shall be made electronically.

# ...and

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For low-rise residential buildings for which compliance requires HERS field verification, the certificate that appears on the plans shall be a copy of the registered Certificate of Compliance from a HERS provider data registry

# Proposed Requirements

## CF-6R

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For all buildings for which compliance requires HERS field verification, the person(s) responsible for the installation(s) that requires HERS field verification, or their authorized representative(s), shall submit the applicable sections of the Installation Certificate(s) for retention to a HERS provider data registry



# ...and

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For installations that require HERS field verification, registered copies from a HERS provider data registry of the appropriate sections of the Installation Certificate(s) shall be posted, or made available with the building permit(s) issued for the building, and shall be made available to the enforcement agency for all applicable inspections

# Proposed Requirements

## CF-4R

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For all buildings for which compliance requires HERS field verification, a certified HERS rater shall conduct all required HERS field verification and diagnostic testing in accordance with applicable procedures

Certificate(s) of Field Verification and Diagnostic Testing shall be completed, signed, and dated by the certified HERS rater who performed the field verification and diagnostic testing services

# ...and

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The Certificate(s) of Field Verification and Diagnostic Testing shall be submitted for retention to a HERS provider data registry

Submittals to the HERS provider data registry shall be made electronically.

A copy of the registered Certificate(s) of Field Verification and Diagnostic Testing shall be posted, or made available with the building permit(s) issued for the building

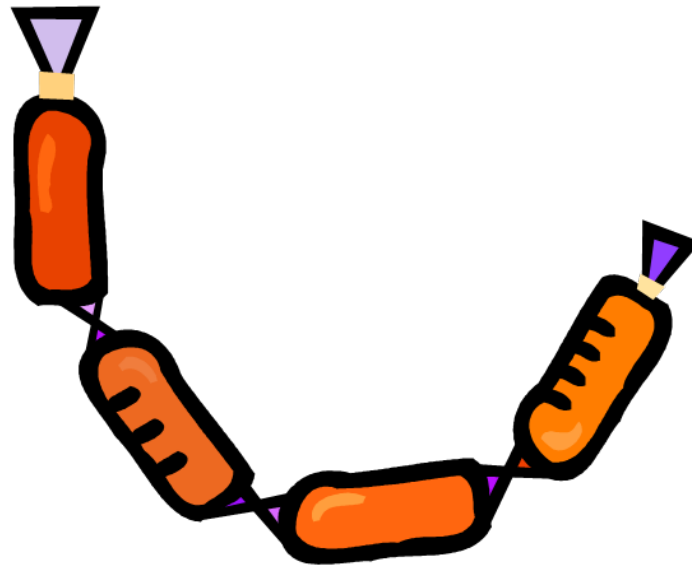
# Small, but significant opportunity

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For newly constructed buildings that meet the requirements of the New Solar Homes Partnership (NSHP) as specified in the NSHP Guidebook, the enforcement agency may waive the plan check and inspection of all measures other than the mandatory measures in the building.

# So we will have this

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# CHEERS Registry Navigator

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The Registry Navigator has been developed in response to the multiple programs that can now be applied to one home or living unit (multi family)

Title 24 HERS Verification

# CHEERS Registry Navigator

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The Registry Navigator has been developed in response to the multiple programs that can now be applied to one home or living unit (multi family)

Title 24 HERS Verification

Energy Star Homes

# CHEERS Registry Navigator

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The Registry Navigator has been developed in response to the multiple programs that can now be applied to one home or living unit (multi family)

Title 24 HERS Verification

Energy Star Homes

Federal Tax Credits (thru 2008)



# CHEERS Registry Navigator

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The Registry Navigator has been developed in response to the multiple programs that can now be applied to one home or living unit (multi family)

Title 24 HERS Verification

Energy Star Homes

Federal Tax Credits (thru 2008)

New Solar Homes Partnership

# CHEERS Registry Navigator

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The Registry Navigator has been developed in response to the multiple programs that can now be applied to one home or living unit (multi family)

Title 24 HERS Verification

Energy Star Homes

Federal Tax Credits (thru 2008)

New Solar Homes Partnership

Prescriptive elements for IOU incentive Programs

# Plus.....

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Alterations & Change Outs  
And  
Existing Home Energy Ratings

# CHEERS Registry Navigator



The Registry Navigator will have all CHEERS Certifications incorporated within. This includes both non-residential and the new existing homes program.

# CHEERS Registry Navigator

The screenshot displays the 'My Projects' window of the CHEERS Registry Navigator. The window title is 'My Projects - C|H|E|E|R|S@ Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)' and it features a menu bar with options: My Company, New Construction, Alterations, Existing Homes, Non-Residential, Reports, and Registry Administration. Below the menu is a toolbar with icons for various actions like 'View Project List', 'Create New Project', 'View/Edit Project', 'Delete Project', 'View Program List', 'View Plan List', 'Create New Plan', 'View/Edit Plan', 'Delete Plan', 'View Site List', 'Create New Site', 'View/Edit Site', 'Delete Site', and 'Copy Site'. A sidebar on the left contains 'Dashboard' and 'My Projects' sections. The main area shows a table with the following data:

Name	Contact	Zip Code	Notes	Date Created	Last Modified
Davies Residence		92064		2/13/2008 11:28:01 AM	2/13/2008 11:30:12 AM
Davies Residence	,		Submitted by CEC	2/13/2008 11:13:38 AM	2/13/2008 11:27:45 AM
NSHP Project	Scott, Robert	99999		9/18/2007 10:28:43 AM	9/18/2007 10:36:51 AM
Test Project	Scott, Robert	12345	Simply for testing	9/14/2007 5:15:33 AM	2/13/2008 3:46:14 PM

Below the table, the text 'Project list' is displayed in a large font. The status bar at the bottom indicates 'Last Synchronized On: 2/18/2008 @ 4:08:25 PM' and 'Logged In As: rscott'.

# CHEERS Registry Navigator

The screenshot displays the CHEERS Registry Navigator application window. The title bar reads "Project: Test Project - C|H|E|E|R|S® Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)". The interface includes a top menu bar with options like "My Company", "New Construction", "Alterations", "Existing Homes", "Non-Residential", "Reports", and "Registry Administration". Below this is a toolbar with icons for "View Project List", "Create New Project", "View/Edit Project", "Delete Project", "View Program List", "View Plan List", "Create New Plan", "View/Edit Plan", "Delete Plan", "View Site List", "Create New Site", "View/Edit Site", "Delete Site", and "Copy Site".

The main content area is divided into several sections:

- Dashboard:** Includes "Save Changes", "View Sites", and "View Plans" buttons.
- My Projects:** A sidebar on the left showing "Project: Test Project".
- Project Details:** A tabbed interface with "Project Details", "Project Assigned Programs", and "Project Street Names (Optional)".
- Project Information:** Displays "Project: Test Project | Created On: 9/14/2007 5:15:33 AM | Last Modified On: 2/18/2008 4:35:52 PM".
- Edit Project Name:** A text field containing "Test Project".
- Project Notes:** A text area containing "Simply for testing".
- City, State, Zip:** Fields for "San Diego", "CA", and "12345".
- Project Contact Information:** (Last Modified: 2/18/2008 4:35:42 PM). Includes a dropdown for "Select Contact Person" (Scott, Robert), a "Contacts" button, and fields for "First Name: Robert", "Last Name: Scott", and "Email Address: rscott@cheers.org". A "Notes" field contains "Not assigned to rater, waiting to hear back from builder."
- Builder:** Fields for "Name: 123 Builder", "Address: 232 A Street", "City, State, Zip: San Diego CA 12345", and "Phone: 716-989-9876".

The status bar at the bottom shows "Last Synchronized On: 2/18/2008 @ 4:08:25 PM" and "Logged In As: rscott | About".



# CHEERS Registry Navigator

The screenshot displays the 'Project: Test Project' window in the Registry Navigator. The interface includes a top menu bar with categories like 'My Company', 'New Construction', 'Alterations', 'Existing Homes', 'Non-Residential', 'Reports', and 'Registry Administration'. Below this is a toolbar with icons for 'View Project List', 'Create New Project', 'View/Edit Project', 'Delete Project', 'View Program List', 'Create New Plan', 'View/Edit Plan', 'Delete Plan', 'View Site List', 'Create New Site', 'View/Edit Site', 'Delete Site', and 'Copy Site'. The main workspace shows a sidebar with 'Dashboard' and 'My Projects', and a central area with tabs for 'Project Details', 'Project Assigned Programs', and 'Project Street Names (Optional)'. The 'Project Assigned Programs' tab is active, showing two columns: 'Available Programs' (listing Federal Tax Credit, Title 24-Alteration, and PG&E) and 'Assigned Programs' (listing Title 24-New Construction, Energy Star, and NSHP). A green arrow button is positioned between the columns, indicating the transfer of programs from available to assigned.

Project: Test Project

Available Programs:

- Federal Tax Credit
- Title 24-Alteration
- PG&E

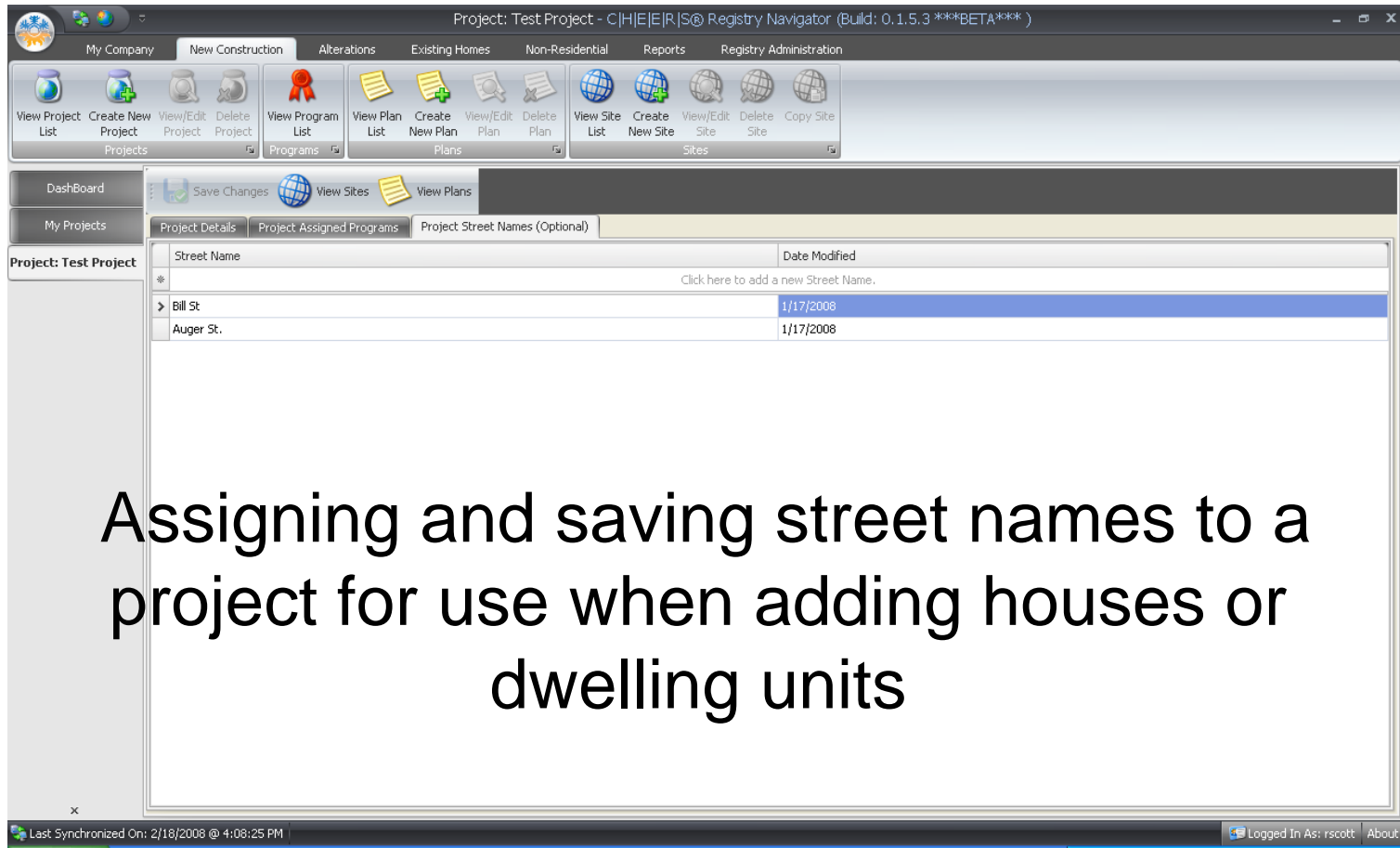
Assigned Programs:

- Title 24-New Construction
- Energy Star
- NSHP

Assigning programs to a project

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# CHEERS Registry Navigator



The screenshot shows the CHEERS Registry Navigator software interface. The window title is "Project: Test Project - C|H|E|E|R|S Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)". The interface includes a menu bar with options like "My Company", "New Construction", "Alterations", "Existing Homes", "Non-Residential", "Reports", and "Registry Administration". Below the menu bar is a toolbar with various icons for actions such as "View Project List", "Create New Project", "View/Edit Project", "Delete Project", "View Program List", "Create New Plan", "View/Edit Plan", "Delete Plan", "View Site List", "Create New Site", "View/Edit Site", "Delete Site", and "Copy Site".

The main content area is divided into several sections. On the left, there is a "My Projects" sidebar with a "Project: Test Project" entry. The main area has tabs for "Project Details", "Project Assigned Programs", and "Project Street Names (Optional)". The "Project Street Names (Optional)" tab is active, displaying a table with the following data:

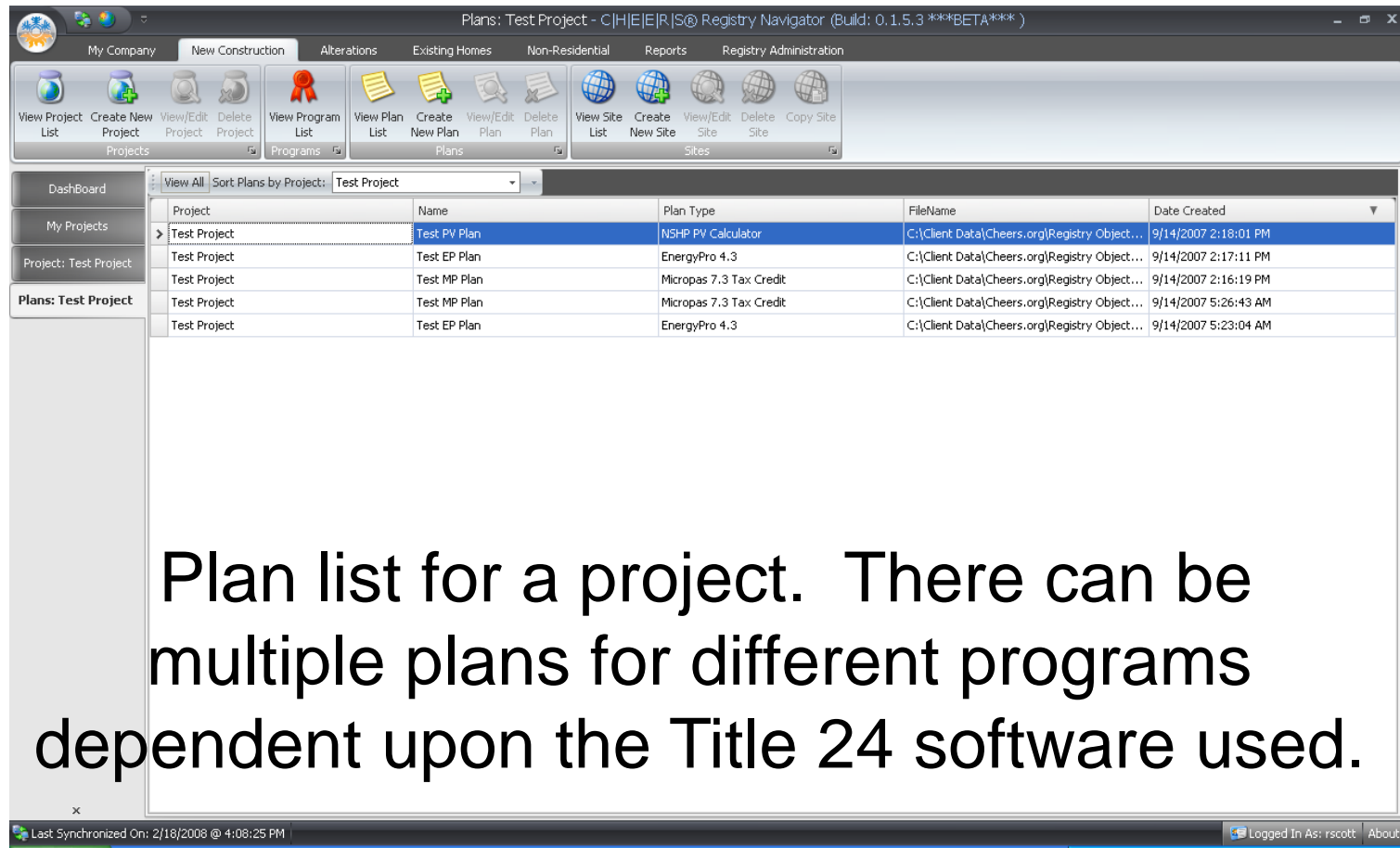
Street Name	Date Modified
* Click here to add a new Street Name.	
> Bill St.	1/17/2008
Auger St.	1/17/2008

At the bottom of the window, there is a status bar that reads "Last Synchronized On: 2/18/2008 @ 4:08:25 PM" and "Logged In As: rscott About".

Assigning and saving street names to a project for use when adding houses or dwelling units



# CHEERS Registry Navigator



The screenshot displays the CHEERS Registry Navigator application window. The title bar reads "Plans: Test Project - C:\H|E|E|R|S@ Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)". The interface includes a menu bar with options like "My Company", "New Construction", "Alterations", "Existing Homes", "Non-Residential", "Reports", and "Registry Administration". Below the menu bar is a toolbar with various icons for actions such as "View Project", "Create New Project", "View/Edit Project", "Delete Project", "View Program List", "View Plan List", "Create New Plan", "View/Edit Plan", "Delete Plan", "View Site List", "Create New Site", "View/Edit Site", "Delete Site", and "Copy Site".

The main content area shows a table of plans for the "Test Project". The table has columns for "Project", "Name", "Plan Type", "FileName", and "Date Created". The data is as follows:

Project	Name	Plan Type	FileName	Date Created
Test Project	Test PV Plan	NSHP PV Calculator	C:\Client Data\Cheers.org\Registry Object...	9/14/2007 2:18:01 PM
Test Project	Test EP Plan	EnergyPro 4.3	C:\Client Data\Cheers.org\Registry Object...	9/14/2007 2:17:11 PM
Test Project	Test MP Plan	Micropas 7.3 Tax Credit	C:\Client Data\Cheers.org\Registry Object...	9/14/2007 2:16:19 PM
Test Project	Test MP Plan	Micropas 7.3 Tax Credit	C:\Client Data\Cheers.org\Registry Object...	9/14/2007 5:26:43 AM
Test Project	Test EP Plan	EnergyPro 4.3	C:\Client Data\Cheers.org\Registry Object...	9/14/2007 5:23:04 AM

At the bottom of the window, a status bar indicates "Last Synchronized On: 2/18/2008 @ 4:08:25 PM" and "Logged In As: rscott".

Plan list for a project. There can be multiple plans for different programs dependent upon the Title 24 software used.

# CHEERS Registry Navigator

Plan: Test EP Plan - CHEERS Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)

My Company | New Construction | Alterations | Existing Homes | Non-Residential | Reports | Registry Administration

View Project List | Create New Project | View/Edit Project | Delete Project | View Program List | View Plan List | Create New Plan | View/Edit Plan | Delete Plan | View Site List | Create New Site | View/Edit Site | Delete Site | Copy Site

Dashboard | Save Changes

My Projects | Basic Plan Information | CF-1R Data

Project: Test Project

Plans: Test Project

Plan: Test EP Plan

Plan File Data:

Building	Building Envelope	Energy Results	Weather Data	Zones	Water Heater	Plan File Info		
Result Type	Cooling	Heating	Water Heating	Other	Orientation	Score	Margin	Total
Reference	16.56	16.55	11.3	0	Standard	0	0	47.71
Proposed	11.34	12.36	11.3	0	Proposed	88.2	0	37.75
Reference	12.19	12.26	0	0	Reference Tax	0	0	25.16
Proposed	5.37	6.64	0	0	Proposed Tax	28.9	0	12.55

Last Synchronized On: 2/18/2008 @ 4:08:25 PM | Logged In As: rscott | About



# CHEERS Registry Navigator

The screenshot displays the 'Sites' section of the CHEERS Registry Navigator. The interface includes a top menu bar with options like 'My Company', 'New Construction', 'Alterations', 'Existing Homes', 'Non-Residential', 'Reports', and 'Registry Administration'. Below the menu is a toolbar with icons for various actions such as 'View Project List', 'Create New Project', 'View/Edit Project', 'Delete Project', 'View Program List', 'View Plan List', 'Create New Plan', 'View/Edit Plan', 'Delete Plan', 'View Site List', 'Create New Site', 'View/Edit Site', 'Delete Site', and 'Copy Site'. The main area shows a table with the following data:

Project	LotNumber	DwellingUnits	Phase	StatusCode	CF-4R Systems	DateCreated	DateModified	Notes
Test Project	231	0			1	1/17/2008 5:14:56 AM	2/12/2008 5:34:38 PM	
Test Project	123	5	drop down?		1	9/14/2007 5:19:01 AM	1/17/2008 6:16:50 AM	

At the bottom of the window, it shows 'Last Synchronized On: 2/18/2008 @ 4:08:25 PM' and 'Logged In As: rscott About'.

Sites

# CHEERS Registry Navigator

The screenshot displays the 'CHEERS Registry Navigator' application window. The title bar reads 'Site Details: Test Project, Lot Number: 123 - C|H|E|E|R|S@ Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\* )'. The interface includes a top menu bar with options like 'My Company', 'New Construction', 'Alterations', 'Existing Homes', 'Non-Residential', 'Reports', and 'Registry Administration'. Below this is a toolbar with icons for 'View Project List', 'Create New Project', 'View/Edit Project', 'Delete Project', 'View Program List', 'View Plan List', 'Create New Plan', 'View/Edit Plan', 'Delete Plan', 'View Site List', 'Create New Site', 'View/Edit Site', 'Delete Site', and 'Copy Site'. A left sidebar contains a 'DashBoard' and 'My Projects' section with buttons for 'Project: Test Project', 'Plans: Test Project', 'Plan: Test EP Plan', and 'Sites: Test Project'. The main content area is titled 'Save Changes' and shows 'Site Information' for 'Test Project'. It includes fields for 'Assigned Project', 'Lot Number: 123', 'Dwelling Units: 5', 'Phase: drop down?', 'Status Code', 'CF4R Systems: 1', and 'Notes'. Below this is the 'Site Address' section with fields for 'Street: 123', 'City, State, Zip: San Diego CA 12345'. The status bar at the bottom indicates 'Last Synchronized On: 2/18/2008 @ 4:08:25 PM' and 'Logged In As: rscott'.

Site Information: (Date Created: 9/14/2007 5:19:01 AM) (Last Modified: 1/17/2008 6:16:50 AM)

Assigned Project: Test Project

Lot Number: 123 Dwelling Units: 5

Phase: drop down? Status Code:

CF4R Systems: 1

Notes:

Site Address:

Street: 123 Select a Street...

City, State, Zip: San Diego CA 12345

Site Detail

Last Synchronized On: 2/18/2008 @ 4:08:25 PM

Logged In As: rscott

# CHEERS Registry Navigator

The screenshot displays the 'CHEERS Registry Navigator' software interface. The title bar reads 'Site Details: Test Project, Lot Number: 123 - C|H|E|E|R|S|@ Registry Navigator (Build: 0.1.5.3 \*\*\*BETA\*\*\*)'. The main menu includes 'My Company', 'New Construction', 'Alterations', 'Existing Homes', 'Non-Residential', 'Reports', and 'Registry Administration'. Below the menu is a toolbar with icons for 'View Project List', 'Create New Project', 'View/Edit Project', 'Delete Project', 'View Program List', 'Create New Plan', 'View/Edit Plan', 'Delete Plan', 'View Site List', 'Create New Site', 'View/Edit Site', 'Delete Site', and 'Copy Site'. A sidebar on the left contains a 'Dashboard' and 'My Projects' section with filters for 'Project: Test Project', 'Plans: Test Project', 'Plan: Test EP Plan', and 'Sites: Test Project'. The main content area is titled 'Site Information' and shows 'Program: NSHP' and 'Assigned Plan: Test PV Plan'. Below this, a 'Program Compliance' section is active, showing 'CF-4R Form Completion' and 'DUCT LEAKAGE REDUCTION COMPLIANCE CREDIT'. The form contains two main sections: 'NEW CONSTRUCTION: Duct Pressurization Test Results (CFM @ 25 Pa)' and 'ALTERATIONS: Duct System and/or HVAC Equipment Change-Out'. The 'NEW CONSTRUCTION' section includes fields for 'Enter Tested Leakage Flow in CFM' (value: .000), 'Fan Flow: Calculated (Nominal: Cooling Heating) or Measured', 'Enter Total Fan Flow in CFM' (value: .000), and a 'Pass if Leakage Percentage < 6% (100 x [Line 1] / [Line 2])' field (value: .000) with 'Pass' and 'Fail' radio buttons. The 'ALTERATIONS' section includes fields for 'Enter Tested Leakage Flow in CFM from CF-6R: (Pre-Test)' (value: .000), 'Enter Tested Leakage Flow in CFM: (Final Test)' (value: .000), 'Enter Reduction in Leakage for Altered Duct System: (Only if Applicable) ([Line 4] - [Line 5])' (value: .000), 'Enter Tested Leakage Flow in CFM to Outside: (Only if Applicable)' (value: .000), and 'Entire New Duct System - Pass if Leakage Percentage < 6%' (value: .000) with 'Pass' and 'Fail' radio buttons. The bottom of the window shows a status bar with 'Last Synchronized On: 2/18/2008 @ 4:08:25 PM' and 'Logged In As: rscott'.

Compliance Statements – CF-4R

# CHEERS Registry Navigator

**Compliance Statement(s) for Title 24-New Construction**

Complete each of the following HERS Rater Compliance Statements. When finished, click Complete.

Cancel Complete

Duct Leakage Reduction Compliance TXV or RCM Adequate Airflow Verification Fan Watt Draw Infiltration

**HERS RATER COMPLIANCE STATEMENT**

The house was:  Tested  Approved as part of sample testing, but was not tested.

As the HERS rater providing diagnostic testing and field verification, I certify that the house identified on this form complies with the diagnostic tested compliance requirements as checked on this form. The HERS rater must check and verify that the new distribution system is fully ducted and correct tape is used before a CF-4R may be released on every tested building. The HERS rater must not release the CF-4R until a properly completed and signed CF-6R has been received for the sample and tested buildings.

A copy of the CF-6R (Installation Certificate) has been provided by the installer.

New ducts are fully ducted (i.e., does not use building cavities as plenums or platform return in lieu of ducts).

New ducts with cloth backed, rubber adhesive duct tape is installed, mastic and draw bands are used in combination with c

**Digital Signature:**

By entering my CHEERS Compliance PIN below, I certify that the HERS Rater Compliance statement above is complete and accurate. I assume complete responsibility for the use of my CHEERS Compliance PIN on this form.

CHEERS Compliance PIN:

**Compliance Statements – CF-4R**