

CITY OF SACRAMENTO  
1231 I Street, Sacramento, CA 95814

Permit No: 0518402  
Insp Area: 4  
Thos Bros: 278A1

Site Address: 1441 KATHARINE AV SAC  
Parcel No: 237-0161-021

Sub-Type: RES  
Housing (Y/N): N

**CONTRACTOR**  
ALL STAR HOME IMPROVEMENT  
4401 HAZELWOOD AVE  
SACRAMENTO CA 95821

**OWNER**  
GROVER TIMOTHY/RICHHELLE  
1441 KATHARINE AVE  
SACRAMENTO, CA 95838

**ARCHITECT**

Nature of Work: PAPERLESS, CUT NEW HVAC SPLIT SYSTEM - SMOKE DETECTORS ARE REQUIRED PER 2001 CBC COMPLIANCE DOCUMENTS ARE DUE AT FINAL

**CONSTRUCTION LENDING AGENCY:** I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name \_\_\_\_\_ Lender's Address \_\_\_\_\_

**LICENSED CONTRACTORS DECLARATION:** I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class C-20 License Number 799547 Date 11-21-05 Contractor Signature Jim A. Wright President

**OWNER-BUILDER DECLARATION:** I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00);

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code: The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I am exempt under Sec. \_\_\_\_\_ B & PC for this reason: \_\_\_\_\_

Date \_\_\_\_\_ Owner Signature \_\_\_\_\_

**PAID**  
**CITY OF SACRAMENTO**  
**NOV 21 2005**

**IN ISSUING THIS BUILDING PERMIT,** the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 11-21-05 Applicant/Agent Signature Jim A. Wright President

**WORKER'S COMPENSATION DECLARATION:** I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued.

I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier NO EMPLOYEES Policy Number \_\_\_\_\_ Exp Date \_\_\_\_\_

(This section need not be completed if the permit is for \$100 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 11-21-05 Applicant Signature Jim A. Wright President

**WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.**

**CERTIFICATE OF COMPLIANCE: RESIDENTIAL**

20FS

CF-1R

Tim & Rachelle Grover

11-21-05

Project Title

Date

HVAC CUT IN

**FENESTRATION PRODUCTS - U-FACTOR AND SHGC**

FENESTRATION MAXIMUM ALLOWED AREA WORKSHEET WS-4R - must be included for New Construction, Additions and Alterations.

Fenestration #/Type/Poa. (Front, Left, Rear, Right, Skylight)	Orientation, N, S, E, W <sup>1</sup>	Area (ft <sup>2</sup> )	U-factor <sup>2</sup>	U-factor Source <sup>3</sup>	SHGC <sup>4</sup>	SHGC Source <sup>5</sup>	Exterior Shading/Overhangs <sup>6, 7</sup> Ck box if WS-3R is included

- 1) Skylights are now included in West-facing fenestration area if the skylights are tilted to the west or tilted in any direction when the pitch is less than 1:12. See §151(f)3C and in Section 3.2.3 of the Residential Manual
- 2) Enter values in this column are either NFRC Rated value or from Standards default Table 116A.
- 3) Indicate source either from NFRC or Table 116A.
- 4) Enter values in this column from NFRC or from Standards Default Table 116B or adjusted SHGC from WS-3R.
- 5) Indicate source either from NFRC or Table 116B.
- 6) Shading Devices are defined in Table 3-3 in the Residential Manual and see WS-3R to calculate Exterior Shading devices.
- 7) See Section 3.2.4 in the Residential Manual.

**HVAC SYSTEMS**

Heating Equipment Type and Capacity (furnace, heat pump, boiler, etc.)	Minimum Efficiency (AFUE or HSPF)	Distribution Type and Location (ducts, attic, etc.)	Duct or Piping R-Value	Thermostat Type	Configuration (split or package)
	96.00 AFUE	Attic	R4	Programmable	
	0 HSPF				Split Sys
45 BTU					

Cooling Equipment Type and Capacity (A/C, Heat Pump, Evap Cool)	Minimum Efficiency (SEER or EER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Configuration (split or package)
	15 SEER	Attic	R4	Programmable	
	13 EER				Split Sys
24 BTU					

3085

CF-1R

**CERTIFICATE OF COMPLIANCE: RESIDENTIAL**

Tim & Rachelle Grover

11-21-05  
Date

Project Title HVAC CUT IN

**SEALED DUCTS and TXVs (or Alternative Measures)**

A signed CF-1R Form must be provided to the building department for each home for which the following are required.

<input checked="" type="checkbox"/>	Sealed Ducts (all climate zones) (Installer testing and certification and HERS rater field verification required.)
<input type="checkbox"/>	TXVs, readily accessible (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)
<input type="checkbox"/>	Refrigerant Charge (climate zones 2 and 8-15 only) (Installer testing and certification and HERS Rater field verification required.)
OR	
<input type="checkbox"/>	Alternative to Sealed Ducts and Refrigerant Charge /TXVs (See Package D Alternative Package Features for Project Climate Zone in the RM Appendix B Table 151-C, Footnotes 7-14.)
OR	
<input type="checkbox"/>	For additions and alterations, duct systems that are not documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Residential ACM Manual and duct systems with more than 40 linear feet in unconditioned spaces shall meet the requirements of Section 150(m) and duct insulation requirements of Package D.

**WATER HEATING SYSTEMS**

<input type="checkbox"/>	Check box if system meets criteria of a "Standard" system. Standard system is one gas-fired water heater per dwelling unit. If the water heater is a storage type, 50 gallons is the maximum capacity and recirculation system is not allowed.
<input type="checkbox"/>	Check box when using Preapproved Alternative Water Heating table, Table 5-4 in Chapter 5 in the Residential Manual. No water heating calculations are required, and the system complies automatically.
<input type="checkbox"/>	Check box if system does not meet criteria of "Standard" system, and does not comply with the Preapproved Alternative Water Heating table. In this case, the Performance Method must be used and must be included in the submittal.
<input type="checkbox"/>	Check box to verify that a time control is required for a recirculating system pump for a system serving multiple units.

**Systems serving single dwelling units**

Water Heater Type/Fuel Type	Distribution Type	Number in System	Rated Input1 (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor1 or Thermal Efficiency	Standby1 Loss (%)	Tank External Insulation R-Value

**System serving multiple dwelling units**

Water Heater Type/Fuel Type	Distribution Type	Number in System	Rated Input1 (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor1 or Thermal Efficiency	Standby1 Loss (%)	Tank External Insulation R-Value

1 For small gas storage water heaters (rated inputs of less than or equal to 75,000 Btu/hr), electric resistance, and heat pump water heaters, list Energy Factor. For large gas storage water heaters (rated input of greater than 75,000 Btu/hr), list Rated Input, Recovery Efficiency, Thermal Efficiency and Standby Loss. For instantaneous gas water heaters, list Rated Input and Thermal Efficiencies.

**Pipe Insulation** (kitchen lines > 3/4 inches) All hot water pipes from the heating source to the kitchen fixtures that are 1/2 inches or greater in diameter shall be thermally insulated as specified by Section 150 (j) 2 A or 150 (j) 2 B.

4 of 5

**CERTIFICATE OF COMPLIANCE: RESIDENTIAL**

CF-1R

Tim & Rachelle Grover

11-21-05

Project Title

Date

HVAC CUT IN

**SPECIAL FEATURES NOT REQUIRING HERS VERIFICATION (add extra sheets if necessary)**

Indicate which special features are part of this project. The list below represents special features relevant to the Prescriptive and Performance Method.

	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Metal Framed Walls	CF-1R	
<input type="checkbox"/>	Radiant Barriers	CF-1R	
<input type="checkbox"/>	Exterior Shades	WS-4R N/A; Performance Calculation	
<input type="checkbox"/>	Cool Roof	Required. Attach CRRC Label to Forms.	
<input type="checkbox"/>	Dedicated Hydronic Heating System	Performance Calculation Required; Attach Run to Forms.	
<input type="checkbox"/>	Combined Hydronic System	Performance Calculation Required; Attach Run to Forms.	
<input type="checkbox"/>	Gas Cooling	N/A; Performance Calculation Required.	
<input type="checkbox"/>	Buried Ducts	N/A; Indicate on building plans.	
<input type="checkbox"/>	Kitchen Pipe Insulation	See Section 5.6.2 Distribution Systems in Residential Manual.	
<input type="checkbox"/>	Multiple Water Heaters Per Dwelling Unit	See Table 5-13 or use Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Central Water Heating System Serving Multiple Dwellings	Performance Calculation and attach Run to Forms.	
<input type="checkbox"/>	Non-NAECA Large Water Heater	CF-1R	
<input type="checkbox"/>	Indirect Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Instantaneous Gas Water Heater	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Solar Water Heating System	See Table 5-13 or use Performance Calculation and attach Run to Forms	
<input type="checkbox"/>	Wood Stove Boiler	Performance Calculation and attach Run to Forms	

**SPECIAL FEATURES REQUIRING HERS RATER VERIFICATION**

(add extra sheets if necessary) Indicate to the HERS Rater which credits are part of this project and need verification.

	Feature	Required Forms (if applicable)	Description
<input type="checkbox"/>	Duct Sealing	CF-6R part 4 of 12	
<input type="checkbox"/>	Refrigerant Charge	CF-6R part 5 of 12	
<input type="checkbox"/>	Thermostatic Expansion Valve	CF-6R part 6 of 12	

**CERTIFICATE OF COMPLIANCE: RESIDENTIAL**

5055

CF-1R

Tim & Rachelle Grover

11-21-05

Project Title

HVAC CUT IN

Date

**COMPLIANCE STATEMENT**

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations, and the administrative regulations to implement them. This certificate has been signed by the individual with overall design responsibility. The undersigned recognizes that compliance using duct design, duct sealing, verification of refrigerant charge and TXVs, insulation installation quality, and building envelope sealing require installer testing and certification and field verification by an approved HERS rater.

Designer or Owner (per Business and Professions Code)

Documentation Author

Name: Woody	Name: Woody
Title/Firm All Star Home Improvement	Title/Firm All Star Home Improvement
Address: 4401 Hazelwood Avenue Sacramento CA 95821	Address: 4401 Hazelwood Avenue Sacramento CA 95821
Telephone: 916-801-7222	Telephone: 916-801-7222
License #: 789547	
<i>Tim Woody Woody</i> 11-21-05 (signature) (date)	<i>Tim Woody Woody</i> 11-21-05 (signature) (date)

**Enforcement Agency**

Name:	Comments:
Title	
Agency:	
Telephone:	
(signature / stamp)	(date)

**CERTIFICATE OF COMPLIANCE: RESIDENTIAL**

10F5

CF-1R

**Tim & Rachelle Grover**  
 Project Title

**1441 Katharine Avenue**                      **Sacramento CA 95838**  
 Project Address

**Woody**    **916-801-7222**  
 Documentation Author                      Telephone

**Prescriptive**    **12**  
 Compliance Method (Prescriptive)                      Climate Zone

**11-21-05**  
 Date

**0518402**  
 Building Permit #

**N/A**  
 Plan Check / Date

Field Check / Date  
 Enforcement Agency Use Only

Alternative Component Package Method: (check one)     C          X         D         D     (Alternative)  
 Package C and Package D choices require HERS rater field verification and/or diagnostic testing (see CF-1R page 3)  
 For Package D Alternative see Appendix B Table 151-C Footnotes 7-14

**GENERAL INFORMATION**

Total Conditioned Floor Area (CFA) **847**    R2 Average Ceiling Height: **8** ft  
 Maximum Allowed West Facing Fenestration Products Per Table 151-B or 151-C --- (5% X CFA) **NA** R2  
 Maximum Allowed Total Fenestration Products Per Table 151-B or 151-C --- (20% X CFA) **NA** R2  
 Building Type: (check one or more)  Single Family     Multifamily     Addition     Alteration  
 (If adding fenestration fill out WS-4R, Fenestration Maximum Allowed Area Worksheet and see Section 8.3.2 for Additions and 8.3.3 for Alterations.)  
 Number of Stories: **1**    Number of Dwelling Units: **1**  
 Floor Construction Type:     raised     Slab/Raised Floor (circle one or both)  
 Front Orientation:     S     North / South / East / West / All Orientations: (input front orientation in degrees from True North and circle one).

**RADIANT BARRIER** (required in climate zones 2, 4, 8-15)

**OPAQUE SURFACES INCLUDING OPAQUE DOORS**

Component Type (Wall, Roof, Floor, Slab Edge, Doors)	Frame Type (Wood or Metal)	Cavity Insulation R-Value	Continuous Insulation R-Value	Assembly Ufactor (for wood, metal frame and mass assemblies) 1	Joint Appendix IV Reference	Roof Radiant Barrier Installed Yes or No	Location/Comments (attic, garage, typical, etc.)

1) See Joint Appendix IV in Section IV.2, IV.3 and IV.4, which is the basis for the U-factor criterion. U-factors can not exceed prescriptive value to show equivalence to R-values.

**CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 3 of 8)**

CF-4R

<u>4401 Hazelwood Ave</u> Project Address		<u>All Star Home Improvements / 799547</u> Contractor Name / License No.	
<u>Max McKinney</u> Contractor Contact		<u>(916) 698-4185</u> Telephone	<u>518402</u> Permit Number
<u>[Signature]</u> HERS Rater Certifying Signature		<u>November 26, 2005</u> Date	<u>11949</u> Sample Group Number <u>CC14-1798352531</u> Certificate Number
Firm:	<u>Energy Analysis and Comfort Solutions, Inc.</u>	HERS Provider:	<u>CalCERTS</u>
Street Address:	<u>P.O. Box 2233</u>	City/State/Zip:	<u>Orangevale / CA / 95662</u>

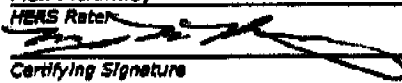
**Copies to: Homeowner, HERS Provider and Building Department**  
 This CF-4R has been registered with the CalCERTS® registry in accordance with the Title 24 & Title 20 of the CCR. CalCERTS® is an approved HERS provider by the California Energy Commission.

**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 installer has provided a copy of the CF-6R (Installation Certificate).

<b>THERMOSTATIC EXPANSION VALVE (TXV):</b>	
Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified.	
HVAC System TXV	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

**CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 2 of 2)**

**CF-4R**

<u>4401 Hazelwood Ave</u>		<u>All Star Home Improvements / 799547</u>	
<i>Project Address</i>		<i>Contractor Name / License No.</i>	
		<u>519402</u>	
<u>Max McKinney</u>		<u>11949</u>	
<i>Contractor Contact</i>	<i>Telephone</i>	<i>Permit Number</i>	
	<u>(916) 698-4185</u>		
<u>November 26, 2005</u>		<u>CC14-1798352531</u>	
<i>HERS Rater</i>	<i>Telephone</i>	<i>Sample Group Number</i>	
			
<i>Certifying Signature</i>	<i>Date</i>	<i>Certificate Number</i>	
<i>Firm:</i>	<u>Energy Analysis and Comfort Solutions, Inc.</u>	<i>HERS Provider:</i> <u>CalCERTS</u>	
<i>Street Address:</i>	<u>P.O. Box 2233</u>	<i>City/State/Zip:</i> <u>Orangevale / CA / 95662</u>	

**Copies to: Homeowner, HERS Provider and Building Department**

This CF-4R has been registered with the CalCERTS® registry in accordance with the Title 24 & Title 20 of the CCR. CalCERTS® is an approved HERS provider by the California Energy Commission.

**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 installer has provided a copy of the CF-98 (Installation Certificate).

<b>HIGH EER AIR CONDITIONER</b>	
<i>Procedures for verification are available in RACH, Appendix A1.</i>	
1. <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	EER values of installed systems match the CF-1R
2. <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	For split systems, indoor coil is matched to outdoor coil
3. <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	Time Delay Relay Verified (If Required)
HVAC System: Yes to 1 and 2; and 3 (If Required) is a pass <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	



1441 Katharine Avenue  
Site Address

Sacramento CA 95838

518402

Permit Number

# INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

Copies to: Builder, HERS Rater, Building Owner at Occupancy and Building Department

## INSTALLER COMPLIANCE STATEMENT

The building was:  Tested at Final  Tested at Rough-in

### INSTALLER VISUAL INSPECTION AT FINAL CONSTRUCTION STAGE:

- Remove at least one supply and one return register, and verify that the spaces between the register boot and the interior finishing wall are properly sealed.
- If the house rough-in duct leakage test was conducted without an air handler installed, inspect the connection points between the air handler and the supply and return plenums to verify that the connection points are properly sealed.
- Inspect all joints to ensure that no cloth backed rubber adhesive duct tape is used

### DUCT LEAKAGE REDUCTION

Procedures for field verification and diagnostic testing of air distribution systems are available in RACM, Appendix RC4.3

NEW CONSTRUCTION:	Measured Values	
Duct Pressurization Test Results (CFM @ 25 Pa)		
1 Enter Tested Leakage Flow in CFM:		
2 Fan Flow: Calculated (Nominal: <input type="checkbox"/> Cooling <input type="checkbox"/> Heating) or <input type="checkbox"/> Measured If Fan Flow is Calculated as 400 cfm/ton x number of tons or as 21.7 cfm/(kBtu/hr) x Heating Capacity in Thousands of Btu/hr, enter total calculated or measured fan flow in CFM here:		
3 Pass if Leakage Percentage < 6% for Final or < 4% at Rough-In: [100 x [ _____ (Line # 1) / _____ (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<b>ALTERATIONS: Duct System and/or HVAC Equipment Change-Out</b>		
4 Enter Tested Leakage Flow in CFM from Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.		
5 Enter Tested Leakage Flow in CFM from Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.		
6 Enter Reduction in Leakage for Altered Duct System [ _____ (Line # 4) Minus _____ (Line # 5) ] - (Only if Applicable)		
7 Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8 Entire New Duct System - Pass if Leakage Percentage < 6% for Final or < 4% at Rough-in [100 x [ _____ (Line # 5) / _____ Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
<b>TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out</b>		
Use one of the following four Test or Verification Standards for compliance:		
9 Pass if Leakage Percentage < 15% [100 x [ _____ (Line # 5) / _____ (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
10 Pass if Leakage to Outside Percentage < 10% [100 x [ _____ (Line # 7) / _____ (Line # 2)]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11 Pass if Leakage Reduction Percentage < 60% [100 x [ _____ (Line # 6) / _____ (Line # 4)]] and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12 Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection Pass if One of Lines # 9 through # 12 pass		<input type="checkbox"/> Pass <input type="checkbox"/> Fail

I, the undersigned, verify that the above diagnostic test results were performed in conformance with the requirements for compliance credit. I, the undersigned, also certify that the newly installed or retrofit Air-Distribution System Ducts, Plenums and Fans comply with Mandatory requirements specified in Section 150 (m) of the 2005 Building Energy Efficiency Standards.

*Jan A. Woodfin* 11-23-05 **PRESIDENT**  
Signature Date

**All Star Home Improvement**  
Installing Subcontractor (Co. Name) OR  
General Contractor (Co. Name)

1441 Katharine Avenue

Sacramento CA 95838

518402

Site Address

Permit Number

An installation certificate is required to be posted at the building site or made available for all appropriate inspections. (The information provided on this form is required) After completion of final inspection, a copy must be provided to the building department (upon request) and the building owner at occupancy, per Section 10-103(a).

**HVAC SYSTEMS:**

**Heating Equipment**

Equip Typ (pkg. heat pum)	CEC Certified Mfr. Name, Model and Serial Number	# of Identical Systems	Efficiency (AFUE, etc.) <sup>1</sup> >(CF-1R value)	Duct Location (attic, etc.)	Duct or Piping R-value	Heating Load (Btu/hr)	Heating Capacity (Btu/hr)
	Amana	1	96.00 AFUE	Attic	R4	45	45
Split Sys	AMV90453BXA		0 HSPF				
	503101278						

**Cooling Equipment**

Equip Typ (pkg. heat pum)	CEC Certified Mfr. Name, Model and Serial Number	# of Identical Systems	Efficiency (AFUE, etc.) <sup>1</sup> >(CF-1R value)	Duct Location (attic, etc.)	Duct or Piping R-value	Cooling Load (Btu/hr)	Cooling Capacity (Btu/hr)
	Amana	1	15.00 SEER	Attic	R4	24	24
Split Sys	RCE24C2C		13 EER				
	5010724972						
	Amana						
Coil	CHPF036B2C+TXV						
	507652545						

1. > symbol reads greater than or equal to what is indicated on the CF-1R value. Include both SEER and EER if compliance credit for high EER air conditioner is claimed.

I, the undersigned, verify that equipment listed above is: 1) is the actual equipment installed, 2) equivalent to or more efficient than that specified in the certificate of compliance (Form CF-1R) submitted for compliance with the Energy Efficiency Standards for residential buildings, and 3) equipment that meets or exceeds the appropriate requirements for manufactured devices (from the Appliance Efficiency Regulations or Part 6), where applicable.

*Jim A. Wojcik* President 11-23-05  
 \_\_\_\_\_  
 Signature, Date

**All Star Home Improvement**  
 \_\_\_\_\_  
 Installing Subcontractor (Co. Name)  
 OR General Contractor (Co. Name) OR Owner

COPY TO: Building Department  
 HERS Rater (if applicable)  
 Building Owner at Occupancy

INSTALLATION CERTIFICATE

(Page 6 of 12)

CF- 6R

1441 Katharine Avenue

Sacramento CA 95838

518402

Site Address

Permit Number

Standard Charge Measurement Summary:

System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	System Passes
--------------------------	-----	--------------------------	----	---------------

Alternate Charge Measurement Procedure (outdoor air dry-bulb below 55 oF)

Note: The system should be installed and charged in accordance with the manufacturer's specifications and installer verification shall be documented on CF-6R before starting this procedure. If outdoor air dry-bulb is 55 oF or above, installer shall use the Standard Charge Measure Procedure:

Procedures for Determining Refrigerant Charge using the Alternate Method are available in RACM, Appendix RD3.

Weigh-In Charging Method for Refrigerant Charge

Actual liquid line length:		ft
Manufacturer's Standard liquid line length:		ft
Difference (Actual - Standard):		ft
Manufacturer's correction (ounces per foot) _____ x difference in length = _____ ounces (+ = add) (- = remove)		

Measured Airflow Method for Adequate Airflow Verification available in RACM, Appendix RD2.6

Calculated Airflow: Cooling Capacity (Btu/hr)	_____ X 0.033 (cfm/Btu-hr) =	_____ CFM
Measured Airflow is	_____ CFM (Measured airflow must be greater than the calculated airflow).	

Alternate Charge Measurement Summary:

System shall pass both refrigerant charge and adequate airflow calculation criteria from the same measurements. If corrective actions were taken, both criteria must be remeasured and recalculated.

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	System Passes
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*Timothy A. Udolph* 11-23-05  
 Signature, Date PRESIDENT

All Star Home Improvement

Installing Subcontractor (Co. Name) OR  
General Contractor (Co. Name) OR Owner

COPY TO: Building Department  
HERS Rater (if applicable)  
Building Owner at Occupancy

1441 Katharine Avenue

Sacramento CA 95838

518402

Site Address

Permit Number

THERMOSTATIC EXPANSION VALVE (TXV)

Procedures for field verification of thermostatic expansion valves are available in RACM, Appendix R1.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	Access is provided for inspection. The procedure shall consist of visual verification that the TXV is installed on the system and installation of the specific equipment shall be verified.			
		Yes is a pass	<table border="1" style="display: inline-table;"> <tr> <td style="width: 20px;">Pass</td> <td style="width: 20px;">Fail</td> </tr> </table>	Pass	Fail
Pass	Fail				

REFRIGERANT CHARGE MEASUREMENT

Verification for Required Refrigerant Charge and Adequate Airflow for Split System Space Cooling Systems without Thermostatic Expansion Valves

Outdoor Unit Serial #	
Location	
Outdoor Unit Make	
Outdoor Unit Model	
Cooling Capacity	Btu/hr
Date of Verification	
Date of Refrigerant Gauge Calibration	(must be checked monthly)
Date of Thermocouple Calibration	(must be checked monthly)

Standard Charge Measurement Procedure (outdoor air dry-bulb 55oF and above):

Procedures for Determining Refrigerant Charge using the Standard Method are available in RACM, Appendix RD2.

Note: The system should be installed and charged in accordance with the manufacturer's specifications before starting this procedure.

Measured Temperatures

Supply (evaporator leaving) air dry-bulb temperature (Tsupply, db)		F
Return (evaporator entering) air dry-bulb temperature (Treturn, db)		F
Return (evaporator entering) air wet-bulb temperature (Treturn, wb)		F
Evaporator saturation temperature (Tevaporator, sat)		F
Suction line temperature (Tsuction, db)		F
Condenser (entering) air dry-bulb temperature (Tcondenser, db)		F

Superheat Charge Method Calculations for Refrigerant Charge

Actual Superheat = Tsuction, db - Tevaporator, sat		F
Target Superheat (from Table RD-2)		F
Actual Superheat - Target Superheat (System passes if between -5 and +5°F)		F

Temperature Split Method Calculations for Adequate Airflow

Split Method Calculation is not necessary if Adequate Airflow credit is taken

Actual Temperature Split = T return, db Tsupply, db		F
Target Temperature Split (from Table RD3)		F
Actual Temperature Split Target Temperature Split (System passes if between -3°F and +3°F or, upon remeasurement, if between -3°F and -100°F)		F

DATE: 11-18-05



CITY OF SACRAMENTO  
DEVELOPMENT SERVICES DIVISION  
FAXED PERMIT APPLICATION (certain restrictions apply)  
Fax # 916-264-1901

- Faxed request must be received in this office by 3:00 p.m. to be processed the following work day.
- Note: Contractors must have a current certificate of Worker's Compensation Insurance.
- Note: Work started before a Building Permit is issued will be subject to fines.
- IN ORDER TO PROCESS THIS REQUEST, ALL THE FOLLOWING INFORMATION MUST BE PROVIDED:

NO. 077 2002

RESIDENTIAL  APARTMENTS  (1+ units per building)  COMMERCIAL (limited)

JOB ADDRESS: 1441 KATHARINE AVE UNIT # \_\_\_\_\_ → CONTRACT PRICES 85500<sup>00</sup>

→ CONTACT PERSON: WOODY → CONTACT PHONE: 916 801 7222

Property Owner: TIM & RACHELE GROVER  
Address: 1441 KATHARINE AVE  
City/State/Zip: SACRAMENTO, CA 95838  
Phone: 916 927 1290

Contractor: ALL STAR HOME IMPROVEMENT  
Address: 4401 HAZELWOOD AVE  
City/State/Zip: SACRAMENTO CA 95821  
Phone: 916 801 7222 FAX: 916 487 8222

NATURE OF REQUEST: Indicate from the selections below

REEROOF (including slip)  
 TEAR-OFF  
 RESHIRT

#SQUARES \_\_\_\_\_  
Material: \_\_\_\_\_  
 SIDING  
 wood  
 vinyl  
 stucco

Note: Design Review approval may be required.

HVAC INSTALLATIONS (potential only)  
 CHANGE-OUT  NEW

Package  
 Split system  
 Roof mount  
 Outside

Value of duct work: \_\_\_\_\_  
Equipment #: 4600  
Cost: 3 4500

Note: Design Review approval may be required.

WATER HEATER (potential only)  
 GAS  ELECTRIC

Change-out  
 Electric to Gas  
 Relocate  
 New

Cost of equipment: \$ \_\_\_\_\_

MINOR ELECTRIC and/or MINOR PLUMBING (potential only)

Electric System Change # amps: 200  
 New electric circuits  
 Re-wire  
 Water Service Replacement  
 Sewer Service Replacement  
 Gas Line Replacement  
 Re-plumb

PUBLIC UTILITIES SAFETY INSPECTION (Residential and single apartment units only)

SMSUD  
 PGE

NOTE: Correction Notices Items will require an additional building permit

DESCRIPTION OF WORK:

CUT IN NEW SPLIT HVAC 96% AFUE 15 SEER CONDENSING UNIT  
WONT BE VISIBLE FROM STREET



CITY OF SACRAMENTO

www.cityofsacramento.org
Help Line: 1-916-808-5856 OR 1-866-EZ-PERMIT
Inspector Request: 1-916-808-7622

Downtown Permit Center
1231 I Street, Suite 200
Sacramento, CA 95814

North Permit Center
2101 Arena Blvd., Suite 200
Sacramento, CA 95834

HEATING and COOLING EQUIPMENT QUESTIONNAIRE

Applicant's Name: All Star Home Improvement Phone: 916 801 7222
Project Address: 1441 KATHARINE AVE Phone: 916 927 1290

Please check the appropriate boxes. Only check a box if it accurately and completely describes your proposed work, otherwise leave boxes blank.

1. GROUND-MOUNTED UNIT

- a. There is an existing ground-mounted unit.
The existing unit shall be removed. The new unit shall be placed in the same location as the existing unit and shall not exceed the size of the existing unit by more than 25%.
The new unit differs in location from the existing unit.
The new unit is fully screened behind a solid fenced area and will not be visible from any street views.
Existing shrubs or buildings will screen the unit from being visible from any street views.

- b. There is no unit in the proposed location.
The new unit will be fully screened behind a solid fenced area and will not be visible from any street views.
Existing shrubs or building will screen the unit from being visible from any street views.

REMOVING SWAMP COOLER FROM ROOF

2. ROOF-MOUNTED UNIT

- a. There is an existing roof-mounted unit.
The existing unit shall be removed. The new unit shall be placed in the same location as the existing unit and shall not exceed the size of the existing unit by more than 25%.
The new unit differs in location from the existing unit. The new unit shall be screened from street views by the building with no portion of the new unit being visible from any street views.

- b. There is no existing roof-mounted unit.
The new unit shall be screened from street views by the building with no portion of the new unit being visible from any street views.

By signing below, the applicant certifies that this form accurately describes the proposed work.

Applicant's signature: Jim A. Wojcik, President Date: 11-18-05
FOR CITY STAFF USE ONLY Counter Staff

- In a DR District. Meets DR criteria? Yes No (route to DR staff)
In a P area or listed (route to P staff)
Not in a DR or P area