

TRANSMISSION VERIFICATION REPORT

TIME : 03/20/2006 10:26
 NAME : CITY OF SACRAMENTO
 FAX : 9168085543
 TEL : 9168085656
 SER.# : BROH4J832840

DATE, TIME 03/20 10:24
 FAX NO./NAME 93878032
 DURATION 00:02:13
 PAGE(S) 03
 RESULT OK
 MODE STANDARD

merit

**CITY OF SACRAMENTO
 CASHIER'S WORKSHEET**

**ISSUED
 CITY OF SACRAMENTO**

MAR 20 2006

**DOWNTOWN PERMIT
 CENTER**

RECEIPT NUMBER: R0604418

TRANSACTION DATE: 03/20/2006
 TRANSACTION AMOUNT: 188.89
 NOTATION:

APD #: **0603737**
 SITE ADDRESS: 3784 MODDISON AV SAC
 PARCEL: 005-0251-038

TYPE: Bldg Minor Permit
 SUB-TYPE: RES
 HOUSING: N
 STATUS: **ISSUED**

Mixed Income Housing
 Fee Program
 ??

TRANSACTION LIST

Type	Method	Description	Pymt Amount
Payment	Credit C	TEETER	188.89

RECEIPT ACCOUNT ITEM LIST

Class #	Description	Item #	Total Fee	Prev Pymt	Current Pymt
200	Permit--Building-Res	1100	175.00	.00	175.00
206	City Business Oper Tax	1730	2.76	.00	2.76
213	General Plan Surcharge	1760	4.13	.00	4.13
259	Bldg-Technology Surcharg	1750	7.00	.00	7.00

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 1 of 5) CF-1R		
Project Title KAY MAULSBY	Date 3-24-06	Building Permit #
Project Address 3784 Moddison AVE		0603737
Documentation Author Arland Whiddon/ Ed Lenoir	Telephone (916)682-8574	Plan Check / Date
Compliance Method (Prescriptive) Prescriptive	Climate Zone 11 / 12	Field Check / Date
Enforcement Agency Use Only		

Alternative Component Package Method: (check one) C 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) N/A ft²

Average Ceiling Height: N/A ft

Maximum Allowed West Facing Fenestration Products Per Table 151-B or 151-C --- (5% X CFA) N/A ft²

Maximum Allowed Total Fenestration Products Per Table 151-B or 151-C --- (20% X CFA) N/A ft²

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: N/A Slab/Raised Floor (circle one or both)

Front Orientation: N/A 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 U-factor (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 COMPLIANCE: RESIDENTIAL (Page 2 of 5) CF-1R	
Project Title KAY MALLSBY	Date 3-24-06

FENESTRATION PRODUCTS - U-FACTOR AND SHGC

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

Fenestration #/Type/Pos. (Front, Left, Rear, Right, Skylight)	Orientation, N, S, E, W	Area (ft ²)	U-factor	SHGC ^d	SHGC Source ^e	Exterior Shading/Overhang ^{A,7} ✓ box if WS-3R is included
N/A						
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>
						<input type="checkbox"/>

- 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)(3)C 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)
GAS FURNACE	80% AFUE	ATTIC	R-4	SET BACK	SPLIT

Cooling Equipment Type and Capacity (A/C, heat pump, evap. cooling)	Minimum Efficiency (SEER or EER)	Duct Location (attic, etc.)	Duct R-Value	Thermostat Type	Configuration (split or package)
COND. UNIT 36-K	15-SEER	SAME	SAME	SAME	SAME

FURNACE MODEL #
AUD080R9V4K4

EVAL. COOL MODEL #
TYC03753HPDO

COND. UNIT MODEL #
2A7A3036A1000A

SEALED DUCTS and TKVs (or Alternative Measures)

A signed CF-4R Form must be provided to the building department for each home for which the following are required.

- Sealed Ducts (all climate zones) (Installer testing and certification and HERS rater field verification required.)
- TKVs, readily accessible (climate zones 2 and 3-15 only) (Installer testing and certification and HERS Rater field verification required.)
- Refrigerant Charge (climate zones 2 and 3-15 only) (Installer testing and certification and HERS Rater field verification required.)

OR

- Alternative to Sealed Ducts and Refrigerant Charge /TKVs (See Package D Alternative Package Features for Project Climate Zone in the RM Appendix B Table 151-C, Footnotes 7-14.

OR

- 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

- 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.
- 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 as the system complies automatically.
- Check box if system does not meet criteria of a "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.
- 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 Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value
N/A							

System serving multiple dwelling units

Water Heater Type	Distribution Type	Number in System	Rated Input ¹ (kW or Btu/hr)	Tank Capacity (gallons)	Energy Factor ¹ or Thermal Efficiency	Standby ¹ Loss (%)	Tank External Insulation R-Value
N/A							

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

CERTIFICATE OF COMPLIANCE: RESIDENTIAL (Page 4 of 5) CF-1R	
Project Title KAY MAULSBY	Date 3-24-06

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 checked="" type="checkbox"/> Metal Framed Walls	CF-1R	
<input type="checkbox"/> Radiant Barriers	CF-1R	
<input type="checkbox"/> Exterior Shades	WS-4R	
<input type="checkbox"/> Cool Roof	N/A; Performance Calculation 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"/> Burled 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-NABCA 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 (Page 3 of 5) CF-1R	
Project Title	Date

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:	KAY MAULSBY	Name:	Arland Whiddon / Ed Lenoir
Title/Firm:	Owner	Title/Firm:	Merit Heating and Air Conditioning
Address:	3784 Moddison AVE	Address:	5451 Warehouse Way ste. #109
Telephone:	SACRO. CA. 95819	Telephone:	Sacramento, Ca. 95826
License #:	H/A		(916) 682-8574
(signature)	<i>Kay Maulsby</i>	(signature)	<i>Arland Whiddon</i>
(date)		(date)	

Enforcement Agency

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

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 1 of 8)

CF-4R

3784 Moddison Ave.		Merit Heating and Air Conditioning / 735542	
<i>Project Address</i>		<i>Contractor Name / License No.</i>	
<i>Contractor Contact</i>		<i>Permit Number</i>	
<i>Contractor Contact</i>	<i>Telephone</i>	<i>Permit Number</i>	
Floyd Patterson	916-698-2432	20426	
<i>HERS Rater</i>		<i>Sample Group Number</i>	
<i>HERS Rater</i>	<i>Telephone</i>	<i>Sample Group Number</i>	
<i>Signature</i>	April 1, 2006	CC14-1798361008	
<i>Certifying Signature</i>		<i>Date Certificate Number</i>	
<i>Firm:</i>	ACIS	<i>HERS Provider: CalCERTS</i>	
<i>Street Address:</i> PO Box 580367		<i>City/State/Zip:</i> Elk Grove / CA / 95758	

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 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.

- The installer has provided a copy of the CF-6R (Installation Certificate).
- New Distribution system is fully ducted (i.e., does not use building cavities as plenums or platform returns in lieu of ducts).
- New systems where cloth backed, rubber adhesive duct tape is installed, mastic and drawbands are used in combination with cloth backed, rubber adhesive duct tape to seal leaks at duct connections.

MINIMUM REQUIREMENTS FOR DUCT LEAKAGE REDUCTION COMPLIANCE CREDIT:

NEW CONSTRUCTION

	Measured Values	
Duct Pressurization Test Results (CFM @ 25 Pa)		
1 Enter Tested Leakage Flow in CFM:	N/A	
2 Fan Flow: Calculated (Nominal <input checked="" type="radio"/> Cooling <input type="radio"/> Heating) or <input type="radio"/> Measured Enter Total Fan Flow in CFM:	1200	
3 Pass if Leakage Percentage $\leq 6\% [100 \times (Line 1 / Line 2)]$:	N/A	N/A

ALTERATIONS: Duct System and/or HVAC Equipment Change-Out

4 Enter Tested Leakage Flow in CFM from CF-6R: Pre-Test of Existing Duct System Prior to Duct System Alteration and/or Equipment Change-Out.	160	
5 Enter Tested Leakage Flow in CFM: Final Test of New Duct System or Altered Duct System for Duct System Alteration and/or Equipment Change-Out.	160	
6 Enter Reduction in Leakage for Altered Duct System [Line 4 - Line 5] - (Only if Applicable)	0	
7 Enter Tested Leakage Flow in CFM to Outside (Only if Applicable)		
8 Entire New Duct System - Pass if Leakage Percentage $\leq 6\% [100 \times (Line 5 / Line 2)]$:		<input type="checkbox"/> Pass <input type="checkbox"/> Fail

TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out, use one of the following four Test or Verification Standards for compliance:

9 Pass if Leakage Percentage $\leq 15\% [100 \times (Line 5 / Line 2)]$:	13.3%	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
10 Pass if Leakage to Outside Percentage $\leq 10\% [100 \times (Line 7 / Line 2)]$:		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
11 Pass if Leakage Reduction Percentage $\geq 60\% [100 \times (Line 6 / Line 4)]$ 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		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Pass if One of Lines #9 through #12 pass		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

CERTIFICATE OF FIELD VERIFICATION & DIAGNOSTIC TESTING (Page 3-4 of 8)

CF-4R

3784 Moddison Ave.		Merit Heating and Air Conditioning / 735542	
<i>Project Address</i>		<i>Contractor Name / License No.</i>	
<i>Contractor Contact</i>		<i>Permit Number</i>	
<i>Contractor Contact</i>	<i>Telephone</i>	<i>Permit Number</i>	
Floyd Patterson	916-698-2432	20426	
<i>HERS Rater</i>		<i>Sample Group Number</i>	
<i>HERS Rater</i>	<i>Telephone</i>	<i>Sample Group Number</i>	


Certifying Signature

April 1, 2006 CC14-1798361008
Date Certificate Number

Firm: ACIS
Street Address: PO Box 580367

HERS Provider: CalCERTS
City/State/Zip: Elk Grove / CA / 95758

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).

THERMOSTATIC EXPANSION VALVE (TXV):

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 Pass Fail

INSTALLATION CERTIFICATE

(Page 1 of 12) CP-6R

Address

3784 Moddison Ave Sacramento, Ca. 95819

Form Number

06-03737

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 19-103(n).

HVAC SYSTEMS:

Heating Equipment

Equip Type (aka. heat source)	CEC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (AFUE, etc.) (% or 1/3 values)	Dist. Location (attic, etc.)	Dist. or Piping R-value	Heating Load (Btu/h)	Heating Capacity (Btu/h)
Gas Furn.	American Standard AUD080R9V4K4	0	80%	ducted Attic	R-4.2		80K btu/h

Cooling Equipment

Equip Type (aka. heat pump)	CEC Certified Mfr. Name and Model Number	# of Identical Systems	Efficiency (SEER or EER) (% or 1/3 values)	Dist. Location (attic, etc.)	Dist. R-value	Cooling Load (Btu/h)	Cooling Capacity (Btu/h)
A/C Condenser	American Standard 2A7A3036A1000A	0	15-SEER	same	same		16K btu/h
A/C coil	TXC03753HPD0						

1. Efficiency values greater than or equal to what is indicated on the CEF-1R values.
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) the actual equipment installed, 2) equivalent or more efficient than that specified in the certificate of compliance (Form CP-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.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	Merit Heating and Air Conditioning
Signature: <i>Arland Whiddon</i>	Date: 3-31-06

Copies to BUILDING DEPARTMENT, PERMITS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY

INSTALLATION CERTIFICATE	(Page 4 of 12) CF-613
Site Address: 3784 Moddison Ave. Sacramento, Ca. 95819	Permit Number: 06-03737

INSTALLER COMPLIANCE STATEMENT FOR DUCT LEAKAGE

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 box 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
 - New Distribution system is fully ducted (i.e., does not use building cavities as plenums or plenum returns in lieu of ducts).

DUCT LEAKAGE REDUCTION
Procedures for field verification and diagnostic testing of air distribution systems are available in KACM, Appendix RC4.3

NEW CONSTRUCTION:			
	Duct Pressurization Test Results (CFM @ 25 Pa)	Measured Values	
1	Enter Tested Leakage Flow in CFM:	160 cfm	
2	Fan Flow: Calculated (Nominal: <input checked="" 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 output, enter total calculated or measured fan flow in CFM here:		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
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
ALTERATIONS: Duct System and/or HVAC Equipment Change-Out			
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.	160 cfm	
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)		<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
8	Enter New Duct System - Pass if Leakage Percentage ≤ 6% for Final: (100 x [Line # 5] / [Line # 2])		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
TEST OR VERIFICATION STANDARDS: For Altered Duct System and/or HVAC Equipment Change-Out Use one of the following four Test or Verification Standards for compliance:			
9	Pass if Leakage Percentage ≤ 15% [(100 x [160 (Line # 5) / 1200 (Line # 2)])]	13.3%	<input checked="" 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 ≥ 65% [100 x [Line # 5] / [Line # 4]]		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
12	Pass if Sealing of all Accessible Leaks and Verification by Smoke Test and Visual Inspection		<input type="checkbox"/> Pass <input type="checkbox"/> Fail
	Pass if One of Lines # 9 through # 12 pass		<input checked="" 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 156 (m) of the 2005 Building Energy Efficiency standards.

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner	Merit Heating and Air Conditioning
Signature: <i>Orlando Alhaddad</i>	Date: 3-31-06

INSTALLATION CERTIFICATE

Site Address
3784 Moddison ave. Sacramento, Ca. 95819

Permit Number
06-03737

THERMOSTATIC EXPANSION VALVE (TXV)
Procedures for field verification of thermostatic expansion valves are available in RACM, Appendix R1.

<input checked="" type="checkbox"/>	<input checked="" 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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Yes is a pass	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 #	N/A
Location	
Outdoor Unit Make	
Outdoor Unit Model	
Cooling Capacity	
Date of Verification	
Date of Refrigerant Gauge Calibration	
Date of Thermocouple Calibration	

Standard Charge Measurement Procedure (outdoor air dry-bulb 55°F 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 Required 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 = Treturn, db - Tsupply, db		°F
Target Temperature Split (from Table RD3)		°F
Actual Temperature Split - Target Temperature Split (System passes if between -5°F and +5°F or, upon re-measurement, if between -5°F and +5°F)		°F

INSTALLATION CERTIFICATE (Page 6 of 12) CP-6R

Site Address: 3784 Moddison ave Sacramento, Ca. 95819 Permit Number: 06-03737

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. [X] Yes [] No System Passes

Alternate Charge Measurement Procedure (Outdoor air dry-bulb below 55 °F) Note: The system should be installed and charged in accordance with the manufacturer's specifications and installer verification shall be documented on CP-6R, before starting duct pressure. If outdoor air dry-bulb is 55 °F or above, installer shall use the Standard Charge Measure Procedure.

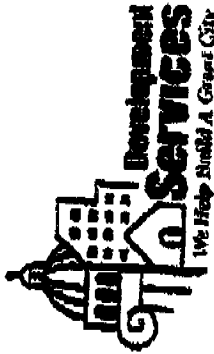
Procedures for Determining Refrigerant Charge using Alternate Method are available in RACSM, Appendix B2.3. Weigh-In Charging Method for Refrigerant Charge. Table with columns: Actual liquid line length, Manufacturer's Standard liquid line length, Difference (Actual - Standard), Manufacturer's correction (ounces per foot) x difference in length = ounces. Includes handwritten 'N/A'.

Measured Airflow Method for Adequate Airflow Verification available in RACSM, Appendix B2.3. Calculated Airflow: Cooling Capacity (Btu/hr) X 0.03 (cfm per Btu-hr) = CFM. Measured Airflow is CFM (Measured airflow must be greater than the calculated airflow). Includes handwritten 'N/A'.

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. [X] Yes [] No System Passes

Installing Subcontractor (Co. Name) OR General Contractor (Co. Name) OR Owner: Merit Heating and Air Conditioning. Signature: [Handwritten Signature]. Date: 3-31-06

Approved by BUILDING DEPARTMENT, REPS RATER (IF APPLICABLE) BUILDING OWNER AT OCCUPANCY



CITY OF SACRAMENTO

Development Permit Center
12311 I Street, Suite 207
Sacramento, CA 95814

Web Site: www.cityofsacramento.gov/development
Help Line: 1-816-666-6655 OR 1-800-EZ-PERMIT
Inspection Request: 1-916-638-7822

Fax # 916-264-1981

MINOR PERMIT APPLICATION

Date: 3-16-06

Permittees request copies be emailed to the office by 3:00 P.M. to be processed the following working day. Contractors must have a current certificate of Worker's Compensation Insurance. Note: Work started before a building permit is deemed not to be subject to permit fee.

Review Review and Historic Preservation. Review and Historic Preservation. Review and Historic Preservation. Review and Historic Preservation.

As owner to proceed with project, ALL THE FOLLOWING INFORMATION MUST BE PROVIDED:

Job Address: 3784-Moddison Ave. Unit # 452-1521. Phone: 452-1521. Email: [blank]

Contract Price: \$4,900.00

Property Owner: KAY MADLISBY. Phone: 452-1521. Email: [blank]

Address: 3784-Moddison Ave. City/State: SACRTO. CA. 95819. Phone: 452-1521.

Contractor: MERIT HEATING & A/C. License #: 735542. Address: 5451-WAREHOUSE WAY #109. City/State: SACR. CA. 95826. Phone: 682-8574. Fax: 387-8032.

Building Type: RESIDENTIAL APARTMENTS (No units per building) COMMERCIAL (Retail)

Permit Type: PERMIT NO PERMIT

Description of Work: CHANGE OUT EXISTING H V A C SPLIT SYSTEM UNIT

<input type="checkbox"/> Permit (excluding site) <input type="checkbox"/> Tear-Off <input type="checkbox"/> Reheat <input type="checkbox"/> Base <input type="checkbox"/> Garage <input type="checkbox"/> Stairs <input type="checkbox"/> Eaves <input type="checkbox"/> Mezz <input type="checkbox"/> Milling <input type="checkbox"/> Wood <input type="checkbox"/> 7-11 <input type="checkbox"/> Mason <input type="checkbox"/> Vinyl <input type="checkbox"/> Stucco	<input type="checkbox"/> HVAC Installation (Residential Only) <input checked="" type="checkbox"/> Change-out <input type="checkbox"/> New <input type="checkbox"/> Package <input checked="" type="checkbox"/> Split system <input type="checkbox"/> Roof mount <input type="checkbox"/> Cut-in <input type="checkbox"/> Heat pump or other unit type <input type="checkbox"/> Wall furnace <input type="checkbox"/> Other (describe below) Value of duct work: _____ Equipment \$: _____ Out-in: S	<input type="checkbox"/> Water Heater (Residential Only) <input type="checkbox"/> Electric <input type="checkbox"/> Gas <input type="checkbox"/> Change-out <input type="checkbox"/> Electric to Gas <input type="checkbox"/> Relocate <input type="checkbox"/> New <input type="checkbox"/> Dry Rot or Termites <input type="checkbox"/> Damage Repair <input type="checkbox"/> Flooding/Leak <input type="checkbox"/> Mold/Mildew <input type="checkbox"/> Roof Structure <input type="checkbox"/> Exterior	<input type="checkbox"/> Water Heater <input type="checkbox"/> Electric <input type="checkbox"/> Gas <input type="checkbox"/> Change-out <input type="checkbox"/> Electric to Gas <input type="checkbox"/> Relocate <input type="checkbox"/> New <input type="checkbox"/> Dry Rot or Termites <input type="checkbox"/> Damage Repair <input type="checkbox"/> Flooding/Leak <input type="checkbox"/> Mold/Mildew <input type="checkbox"/> Roof Structure <input type="checkbox"/> Exterior	<input type="checkbox"/> Sewer Electric: condition <input type="checkbox"/> Minor Plumbing (Residential Only) <input type="checkbox"/> Electric Service: Change # amps <input type="checkbox"/> New electric conduits <input type="checkbox"/> Re-wire <input type="checkbox"/> Water Service Replacement <input type="checkbox"/> Sewer Service Replacement <input type="checkbox"/> Gas Line Replacement <input type="checkbox"/> Re-plumb <input type="checkbox"/> Water <input type="checkbox"/> Waste	<input type="checkbox"/> Public Utilities Safety <input type="checkbox"/> Permitted <input type="checkbox"/> (Residential and single apartment units Only) <input type="checkbox"/> SMRFD <input type="checkbox"/> PG&E <input type="checkbox"/> NCEFE # <input type="checkbox"/> Construction Method items will require an additional building permit
Permit #: Date Received: Date Issued:	Permit #: Date Received: Date Issued:	Permit #: Date Received: Date Issued:	Permit #: Date Received: Date Issued:	Permit #: Date Received: Date Issued:	Permit #: Date Received: Date Issued:

City of Sacramento



PLANNING BUILDING DEPARTMENT BUILDING DIVISION (916) 806-BLDG (2534)

Building Permit

George

***** Office Use Only *****

ISSUED CITY OF SACRAMENTO

Permit No: _____

MAR 20 2006

Total Amount: _____

DOWNTOWN PERMIT CENTER

***** Please Fill in the Following *****

Site Address: _____

Nature of Work: CHANGE OUT EXISTING HVAC-SPILT SYSTEM UNIT

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 License Number 735542 Date 3-16-06 Signature Arland J. Hildson

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following (Sec. 7044, 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 3 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 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, 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 contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law) I am exempt under Sec. _____ B & PC for this reason: _____

Date _____ Owner Signature _____

I, as owner of the property, hereby certify that 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 will comply with all private agreements 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 3-16-06 Applicant/Agent Signature Arland J. Hildson

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 STATE FILING Policy Number 1625930 Expiration Date 2-10-07

(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, or as to benefits 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 3-16-06 Applicant Signature Arland J. Hildson

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 ATTORNEYS FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.