

MANDATORY MEASURES SUMMARY: Residential (Page 3 of 3) **MF-1R**

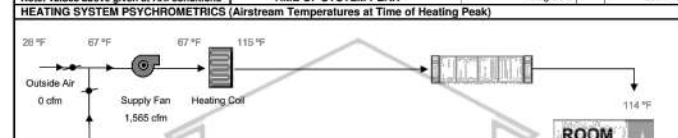
Project Name: **Honorio Garcia** Date: **8/30/2012**

§150(k)10: Permanently installed luminaires in bathrooms, attached and detached garages, laundry rooms, closets and utility rooms shall be high efficacy.
 EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by a manual-on occupant sensor certified to comply with the applicable requirements of §119.
 EXCEPTION 2: Permanently installed low efficacy luminaires in closets less than 70 square feet are not required to be controlled by a manual-on occupancy sensor.
 §150(k)11: Permanently installed luminaires located in rooms or areas other than in kitchens, bathrooms, garages, laundry rooms, closets, and utility rooms shall be high efficacy luminaires. EXCEPTION 1: Permanently installed low efficacy luminaires shall be allowed provided they are controlled by either a dimmer switch that complies with the applicable requirements of §119, or by a manual-on occupant sensor that complies with the applicable requirements of §119. EXCEPTION 2: Lighting in detached storage building less than 1000 square feet located on a residential site is not required to comply with §150(k)11.
 §150(k)12: Luminaires recessed into insulated ceilings shall be listed for zero clearance insulation contact (IC) by Underwriters Laboratories or other nationally recognized testing laboratory, and have a label that certifies the luminaire is airtight with air leakage less than 2.0 CFM at 75 Pascals when tested in accordance with ASTM E283; and be sealed with a gasket or caulk between the luminaire housing and ceiling.
 §150(k)13: Luminaires providing outdoor lighting, including lighting for private patios in low-rise residential buildings with four or more dwelling units, entrances, balconies, and porches, which are permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy. EXCEPTION 1: Permanently installed outdoor low efficacy luminaires shall be allowed provided that they are controlled by a manual on/off switch, a motion sensor not having an override or bypass switch that disables the motion sensor, and one of the following controls: a photocell not having an override or bypass switch that disables the photocell, OR an astronomical time clock not having an override or bypass switch that disables the astronomical time clock; OR an energy management control system (EMCS) not having an override or bypass switch that allows the luminaire to be always on. EXCEPTION 2: Outdoor luminaires used to comply with Exception 1 to §150(k)13 may be controlled by a temporary override switch which bypasses the motion sensing function provided that the motion sensor is automatically reactivated within six hours. EXCEPTION 3: Permanently installed luminaires in or around swimming pool, water features, or other location subject to Article 680 of the California Electric Code need not be high efficacy luminaires.
 §150(k)14: Internally illuminated address signs shall comply with Section 146; OR not contain a screw-base socket, and consume no more than five watts of power as determined according to §130(d).
 §150(k)15: Lighting for parking lots and carports with a total of for 8 or more vehicles per site shall comply with the applicable requirements in Sections 130, 132, 134, and 147. Lighting for parking garages for 8 or more vehicles shall comply with the applicable requirements of Sections 130, 131, 134, and 146.
 §150(k)16: Permanently installed lighting in the enclosed, non-dwelling spaces of low-rise residential buildings with four or more dwelling units shall be high efficacy luminaires. EXCEPTION: Permanently installed low efficacy luminaires shall be allowed provided that they are controlled by an occupant sensor(s) certified to comply with the applicable requirements of §119.

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: **Honorio Garcia** Date: **8/30/2012**
 System Name: **HVAC System** Floor Area: **1,794**

ENGINEERING CHECKS		SYSTEM LOAD				
Number of Systems	1	COIL COOLING PEAK		COIL HTG. PEAK		
Heating System		CFM	Sensible	Latent	CFM	Sensible
Output per System	75,000	1,500	30,416	873	937	45,284
Total Output (Btu/h)	75,000	Total Room Loads				
Output (Btu/h/sqft)	41.8	Return Vented Lighting		0		
Cooling System		Return Air Ducts		1,366		
Output per System	46,300	Return Fan		0		
Total Output (Btu/h)	46,300	Ventilation		0		
Total Output (Tons)	3.9	Supply Fan		0		
Output (Btu/h/sqft)	25.8	Supply Air Ducts		1,366		
Total Output (Btu/h/Ton)	465.0	TOTAL SYSTEM LOAD		33,148 873		
Air System		TOTAL SYSTEM LOAD		49,875		
CFM per System	1,565	HVAC EQUIPMENT SELECTION				
Airflow (cfm)	1,565	Carrier 58MTB80-16 CNP 38HD 4 T		38,011	3,140	
Airflow (cfm/sqft)	0.87					
Airflow (cfm/Ton)	405.6					
Outside Air (%)	0.0	Total Adjusted System Output		38,011	3,140	
Outside Air (cfm/sqft)	0.00	(Adjusted for Peak Design conditions)				
Note: values above given at ARI conditions		TIME OF SYSTEM PEAK		Aug 3 PM	Jan 1 AM	



BUILDING ENERGY ANALYSIS REPORT

PROJECT:
 Honorio Garcia
 2797 Homestead Dr.
 San Marcos, CA. 92069

Project Designer:
 Marco A. Laureano (MAR-Co. HOU)
 560 Lynette Cir.
 Vista, CA. 92084
 760-805-2358

Report Prepared by:
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 Santa Rosa, CA 95402
 707-237-6957

Job Number:
 082912
Date:
 8/30/2012

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2008 Building Energy Efficiency Standards. This program developed by EnergySoft, LLC - www.energysoft.com



MAR-Co.
 HOUSE PLANS & DESIGNS
 PLANS-DRAWING-DESIGN-3D-PERMISSIB
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OWNERS NAME & ADDRESS:
MR. & MRS. GARCIA
 XXXX HOMESTEAD DR. SAN MARCOS, CA. 92069

PROJECT NAME & ADDRESS:
GARCIA'S HOUSE REMODEL
 XXXX HOMESTEAD DR. SAN MARCOS, CA. 92069

CONSULTANT:

REVISIONS:

DATE: **09/04/2012**
 SCALE: AS SPECIFIED
 DRAWN & PREPARED BY: MARCO A. LAUREANO
 SHEET: **T-24-2**
 OF: **9**