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Project Title..... Your Name's Residence          Date..04/29/08 23:55:27
Project Address..... Your Street,                *****
                                           Your City, CA 00000.    *v7.20*
Documentation Author... Kathleen Taylor          *****
                                           Taylor Design & Drafting
                                           P.O. Box 905
                                           Rocklin, CA 95677
                                           916-624-1649
Climate Zone..... 12
Compliance Method..... MICROPAS7 v7.20 for 2005 Standards by Enercomp, Inc.
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|      MICROPAS7 v7.20  File-Name  Wth-CTZ12S05  Program-TOC      |
|      User#-MP2078   User-Taylor Design & Drafting  Run-Sample   |
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Compliance Method..... MICROPAS7 v7.20 for 2005 Standards by Enercomp, Inc.
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|-------------------|
| |
| Building Permit # |
| Plan Check / Date |
| Field Check/ Date |

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| MICROPAS7 v7.20 File-Name Wth-CTZ12S05 Program-FORM CF-1R |
| User#-MP2078 User-Taylor Design & Drafting Run-Sample |
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= MICROPAS7 ENERGY USE SUMMARY =
= ----- =
= Energy Use Standard Proposed Compliance =
= (kTDV/sf-yr) Design Design Margin =
= ----- =
= Space Heating..... 23.19 22.15 1.04 =
= Space Cooling..... 25.06 24.16 0.90 =
= Water Heating..... 8.60 8.26 0.34 =
= ----- =
= Total 56.85 54.57 2.28 =
=
= *** Building complies with Computer Performance *** =
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GENERAL INFORMATION

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HERS Verification..... Not Required
Conditioned Floor Area..... 3109 sf
Building Type..... Single Family Detached
Construction Type ..... New
Fuel Type ..... NaturalGas
Building Front Orientation. Front Facing 0 deg (N)
Number of Dwelling Units... 1
Number of Building Stories. 1
Weather Data Type..... FullYear

Floor Construction Type.... Raised Floor
Number of Building Zones... 1
Conditioned Volume..... 31960 cf
Slab-On-Grade Area..... 0 sf
Glazing Percentage..... 22.4 % of floor area
Average Glazing U-factor... 0.4 Btu/hr-sf-F
Average Glazing SHGC..... 0.35
Average Ceiling Height..... 10.3 ft

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| | | | | | |
|-----------------|-------------------------------|--------------|--------------|-------|--|
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BUILDING ZONE INFORMATION

| Zone Type | Floor Area (sf) | Volume (cf) | # of Dwelling Units | # of People | Conditioned | Thermo-stat Type | Vent Height (ft) | Vent Area (sf) | Verified Leakage or Housewrap |
|-----------|-----------------|-------------|---------------------|-------------|-------------|------------------|------------------|----------------|-------------------------------|
| Residence | 3109 | 31960 | 1.00 | 2.0 | Yes | Setback | 2.0 | Standard | No |

OPAQUE SURFACES

| Surface | Frame Type | Area (sf) | U-factor | Cavity R-val | Sheathing R-val | Act Azm | Tilt | Solar Gains | Appendix IV Reference | Location/Comments | |
|---------|------------|-----------|----------|--------------|-----------------|---------|------|-------------|-----------------------|-------------------|-------------|
| 1 | Wall | Wood | 533 | 0.074 | 19 | 0 | 0 | 90 | Yes | IV.9 A5 | |
| 2 | Wall | Wood | 124 | 0.074 | 19 | 0 | 0 | 90 | No | IV.9 A5 | |
| 3 | Wall | Wood | 481 | 0.074 | 19 | 0 | 90 | 90 | Yes | IV.9 A5 | |
| 4 | Wall | Wood | 93 | 0.074 | 19 | 0 | 90 | 90 | No | IV.9 A5 | |
| 5 | Wall | Wood | 828 | 0.074 | 19 | 0 | 180 | 90 | Yes | IV.9 A5 | |
| 6 | Wall | Wood | 26 | 0.074 | 19 | 0 | 180 | 90 | No | IV.9 A5 | |
| 7 | Wall | Wood | 413 | 0.074 | 19 | 0 | 270 | 90 | Yes | IV.9 A5 | |
| 8 | Wall | Wood | 108 | 0.074 | 19 | 0 | 45 | 90 | Yes | IV.9 A5 | Corner Wall |
| 9 | Wall | Wood | 230 | 0.074 | 19 | 0 | 45 | 90 | No | IV.9 A5 | Corner Wall |
| 10 | Wall | Wood | 195 | 0.074 | 19 | 0 | 135 | 90 | No | IV.9 A5 | Corner Wall |
| 11 | Roof | Wood | 3109 | 0.025 | 38 | 0 | n/a | 0 | Yes | IV.1 A18 | |
| 12 | Floor | Wood | 3109 | 0.037 | 19 | 0 | n/a | 0 | No | IV.20 A4 | |
| 13 | Door | Other | 48 | 0.500 | 0 | 0 | 0 | 90 | Yes | IV.5 A4 | |

PERIMETER LOSSES

| Surface | Length (ft) | F2 Factor | Insul R-val | Solar Gains | Appendix IV Reference | Location/Comments |
|-------------|-------------|-----------|-------------|-------------|-----------------------|-------------------|
| 14 SlabEdge | 154 | 0.730 | R-0 | No | IV.26 A1 | |

FENESTRATION SURFACES

| Orientation | Area (sf) | U-factor | SHGC | Act Azm | Tilt | Exterior Shade Type | Location/Comments |
|------------------|-----------|----------|-------|---------|------|---------------------|--------------------------|
| 1 Wind Front (N) | 13.5 | 0.400 | 0.350 | 0 | 90 | Standard | F1/Vinyl/Wood Operable L |
| 2 Wind Front (N) | 13.5 | 0.400 | 0.350 | 0 | 90 | Standard | F2/Vinyl/Wood Operable L |
| 3 Wind Front (N) | 30.0 | 0.400 | 0.350 | 0 | 90 | Standard | F3/Vinyl/Wood Operable L |
| 4 Wind Front (N) | 2.3 | 0.400 | 0.350 | 0 | 90 | Standard | F4/Vinyl/Wood Fixed Low |

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FENESTRATION SURFACES

| Orientation | Area (sf) | U-factor | SHGC | Act Azm | Tilt | Exterior Shade Type | Location/Comments |
|--------------------|-----------|----------|-------|---------|------|---------------------|--------------------------|
| 5 Wind Front (N) | 2.3 | 0.400 | 0.350 | 0 | 90 | Standard | F5/Vinyl/Wood Fixed Low |
| 6 Wind Front (N) | 2.3 | 0.400 | 0.350 | 0 | 90 | Standard | F6/Vinyl/Wood Fixed Low |
| 7 Wind Front (N) | 30.0 | 0.400 | 0.350 | 0 | 90 | Standard | F7/Vinyl/Wood Operable L |
| 8 Wind Front (N) | 4.0 | 0.400 | 0.350 | 0 | 90 | Standard | F8/Vinyl/Wood Operable L |
| 9 Wind Front (N) | 4.0 | 0.400 | 0.350 | 0 | 90 | Standard | F9/Vinyl/Wood Operable L |
| 10 Wind Left (E) | 4.0 | 0.400 | 0.350 | 90 | 90 | Standard | L1/Vinyl/Wood Operable L |
| 11 Wind Left (E) | 4.0 | 0.400 | 0.350 | 90 | 90 | Standard | L2/Vinyl/Wood Operable L |
| 12 Wind Left (E) | 4.0 | 0.400 | 0.350 | 90 | 90 | Standard | L3/Vinyl/Wood Operable L |
| 13 Wind Left (E) | 8.0 | 0.400 | 0.350 | 90 | 90 | Standard | L4/Vinyl/Wood Operable L |
| 14 Wind Left (E) | 4.0 | 0.400 | 0.350 | 90 | 90 | Standard | L5/Vinyl/Wood Operable L |
| 15 Door Left (E) | 48.0 | 0.400 | 0.350 | 90 | 90 | Standard | L6/Vinyl/Wood Patio Door |
| 16 Wind Left (E) | 20.0 | 0.400 | 0.350 | 90 | 90 | Standard | L7/Vinyl/Wood Operable L |
| 17 Wind Back (S) | 4.0 | 0.400 | 0.350 | 180 | 90 | Standard | B1/Vinyl/Wood Operable L |
| 18 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B2/Vinyl/Wood Operable L |
| 19 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B3/Vinyl/Wood Operable L |
| 20 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B4/Vinyl/Wood Operable L |
| 21 Wind Back (S) | 8.0 | 0.400 | 0.350 | 180 | 90 | Standard | B5/Vinyl/Wood Fixed Low |
| 22 Wind Back (S) | 8.0 | 0.400 | 0.350 | 180 | 90 | Standard | B6/Vinyl/Wood Fixed Low |
| 23 Wind Back (S) | 8.0 | 0.400 | 0.350 | 180 | 90 | Standard | B7/Vinyl/Wood Fixed Low |
| 24 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B8/Vinyl/Wood Operable L |
| 25 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B9/Vinyl/Wood Operable L |
| 26 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B10/Vinyl/Wood Operable |
| 27 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B11/Vinyl/Wood Fixed Low |
| 28 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B12/Vinyl/Wood Fixed Low |
| 29 Wind Back (S) | 24.0 | 0.400 | 0.350 | 180 | 90 | Standard | B13/Vinyl/Wood Fixed Low |
| 30 Wind Back (S) | 8.0 | 0.400 | 0.350 | 180 | 90 | Standard | B14/Vinyl/Wood Operable |
| 31 Wind Back (S) | 20.0 | 0.400 | 0.350 | 180 | 90 | Standard | B15/Vinyl/Wood Operable |
| 32 Wind Back (S) | 20.0 | 0.400 | 0.350 | 180 | 90 | Standard | B16/Vinyl/Wood Operable |
| 33 Wind Right (W) | 30.0 | 0.400 | 0.350 | 270 | 90 | Standard | R1/Vinyl/Wood Operable L |
| 34 Wind Right (W) | 8.0 | 0.400 | 0.350 | 270 | 90 | Standard | R2/Vinyl/Wood Operable L |
| 35 Door Right (W) | 48.0 | 0.400 | 0.350 | 270 | 90 | Standard | R3/Vinyl/Wood Patio Door |
| 36 Wind Right (W) | 12.0 | 0.400 | 0.350 | 270 | 90 | Standard | R4/Vinyl/Wood Fixed Low |
| 37 Wind Right (W) | 24.0 | 0.400 | 0.350 | 270 | 90 | Standard | R5/Vinyl/Wood Operable L |
| 38 Wind Right (W) | 8.0 | 0.400 | 0.350 | 270 | 90 | Standard | R6/Vinyl/Wood Fixed Low |
| 39 Wind Front (NE) | 18.0 | 0.400 | 0.350 | 45 | 90 | Standard | C1/Vinyl/Wood Operable L |
| 40 Door Front (NE) | 40.0 | 0.400 | 0.350 | 45 | 90 | Standard | C2/Vinyl/Wood Patio Door |
| 41 Wind Front (NE) | 24.0 | 0.400 | 0.350 | 45 | 90 | Standard | C3/Vinyl/Wood Operable L |

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OVERHANGS

| Surface | Area (sf) | ---Window--- | | -----Overhang----- | | | |
|-----------|-----------|--------------|--------|--------------------|--------|----------------|-----------------|
| | | Width | Height | Depth | Height | Left Extension | Right Extension |
| 1 Window | 13.5 | 3.0 | 4.5 | 1.5 | 2.0 | n/a | n/a |
| 2 Window | 13.5 | 3.0 | 4.5 | 1.5 | 2.0 | n/a | n/a |
| 3 Window | 30.0 | 5.0 | 6.0 | 2.5 | 10.0 | n/a | n/a |
| 4 Window | 2.3 | 1.5 | 1.5 | 1.5 | 13.0 | n/a | n/a |
| 5 Window | 2.3 | 1.5 | 1.5 | 1.5 | 13.0 | n/a | n/a |
| 6 Window | 2.3 | 1.5 | 1.5 | 1.5 | 13.0 | n/a | n/a |
| 7 Window | 30.0 | 5.0 | 6.0 | 2.5 | 10.0 | n/a | n/a |
| 8 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 9 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 10 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 11 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 12 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 13 Window | 8.0 | 2.0 | 8.0 | 1.5 | 2.0 | n/a | n/a |
| 14 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 15 Door | 48.0 | 6.0 | 8.0 | 25.0 | 4.0 | n/a | n/a |
| 16 Window | 20.0 | 4.0 | 5.0 | 25.0 | 4.0 | n/a | n/a |
| 17 Window | 4.0 | 2.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 18 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.0 | n/a | n/a |
| 19 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.5 | n/a | n/a |
| 20 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.0 | n/a | n/a |
| 21 Window | 8.0 | 4.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 22 Window | 8.0 | 4.0 | 2.0 | 1.5 | 2.5 | n/a | n/a |
| 23 Window | 8.0 | 4.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 24 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.0 | n/a | n/a |
| 25 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.0 | n/a | n/a |
| 26 Window | 24.0 | 4.0 | 2.0 | 1.5 | 2.5 | n/a | n/a |
| 27 Window | 24.0 | 4.0 | 3.0 | 1.5 | 2.5 | n/a | n/a |
| 28 Window | 24.0 | 4.0 | 2.0 | 1.5 | 2.5 | n/a | n/a |
| 29 Window | 24.0 | 4.0 | 6.0 | 1.5 | 4.0 | n/a | n/a |
| 30 Window | 8.0 | 2.0 | 4.0 | 1.5 | 13.0 | n/a | n/a |
| 31 Window | 20.0 | 4.0 | 5.0 | 1.5 | 2.0 | n/a | n/a |
| 32 Window | 20.0 | 4.0 | 5.0 | 1.5 | 2.0 | n/a | n/a |
| 33 Window | 30.0 | 6.0 | 5.0 | 1.5 | 2.0 | n/a | n/a |
| 34 Window | 8.0 | 4.0 | 2.0 | 1.5 | 2.0 | n/a | n/a |
| 35 Door | 48.0 | 6.0 | 8.0 | 25.0 | 4.0 | n/a | n/a |
| 36 Window | 12.0 | 6.0 | 2.0 | 25.0 | 4.0 | n/a | n/a |
| 37 Window | 24.0 | 4.0 | 6.0 | 25.0 | 4.0 | n/a | n/a |
| 38 Window | 8.0 | 4.0 | 2.0 | 25.0 | 4.0 | n/a | n/a |
| 39 Window | 18.0 | 4.0 | 4.5 | 13.0 | 2.0 | n/a | n/a |
| 40 Door | 40.0 | 5.0 | 8.0 | 13.0 | 2.0 | n/a | n/a |
| 41 Window | 24.0 | 4.0 | 6.0 | 13.0 | 2.0 | n/a | n/a |

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HVAC SYSTEMS

| System Type | Number of Systems | Minimum Efficiency | Verified EER | Verified Refriger or TXV | Verified Adequate Airflow | Verified Fan Watt Draw | Verified Maximum Cooling Capacity |
|-------------|-------------------|--------------------|--------------|--------------------------|---------------------------|------------------------|-----------------------------------|
| Furnace | 1 | 0.900 AFUE | n/a | n/a | n/a | n/a | n/a |
| ACSplit | 1 | 14.00 SEER | No | No | No | No | No |

HVAC SIZING

| System Type | Total Heating Load (Btu/hr) | Sensible Cooling Load (Btu/hr) | Design Cooling Capacity (Btu/hr) | Verified Maximum Cooling Capacity (Btu/hr) |
|-------------|-----------------------------|--------------------------------|----------------------------------|--------------------------------------------|
| Furnace | 71481 | n/a | n/a | n/a |
| ACSplit | n/a | 39992 | 47958 | n/a |

Sizing Location..... ORANGEVALE
 Winter Outside Design..... 24 F
 Winter Inside Design..... 70 F
 Summer Outside Design..... 100 F
 Summer Inside Design..... 75 F
 Summer Range..... 36 F

DUCT SYSTEMS

| System Type | Duct Location | Duct R-value | Duct Leakage | Verified Surface Area | Verified Buried Ducts |
|-------------|---------------|--------------|--------------|-----------------------|-----------------------|
| Furnace | Attic | R-4.2 | No | No | No |
| ACSplit | Attic | R-4.2 | No | No | No |

WATER HEATING SYSTEMS

| Tank Type | Heater Type | Distribution | Type | Number in System | Energy Factor | Tank Size (gal) | External Insulation R-value |
|-----------|-------------|--------------|------|------------------|---------------|-----------------|-----------------------------|
| 1 Storage | Gas | Standard | | 1 | 0.60 | 50 | R- n/a |

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REMARKS

COMPLIANCE STATEMENT

This certificate of compliance lists the building features and performance 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.

DESIGNER or OWNER DOCUMENTATION AUTHOR
Name.... Kathleen Taylor Name.... Kathleen Taylor
Company. Taylor Design&Drafting Se Company. Taylor Design & Drafting
Address. P.O.Box 905 Address. P.O. Box 905
Rocklin, CA 95677. Rocklin, CA 95677
Phone... (916)624-1649 Phone... 916-624-1649
License. #000469
Signed.. (date) Signed.. (date)

ENFORCEMENT AGENCY
Name....
Title...
Agency..
Phone...
Signed.. (date)

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                                                Your City, CA 00000.   *v7.20*
Documentation Author... Kathleen Taylor             *****
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Note: Lowrise residential buildings subject to the Standards must contain these measures regardless of the compliance approach used. More stringent compliance requirements from the Certificate of Compliance supersede the items marked with an asterisk (*). When this checklist is incorporated into the permit documents, the features noted shall be considered by all parties as minimum component performance specifications for the mandatory measures whether they are shown elsewhere in the documents or on this checklist only.

BUILDING ENVELOPE MEASURES

| | De- sign- n/a | En- sign- er | force- ment |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|----------------|
| *150(a): Minimum R-19 insulation in wood framed ceiling or equivalent U-factor in metal frame ceiling | _____ | _____ | _____ |
| 150(b): Loose fill insulation manufacturer's labeled R-Value | _____ | _____ | _____ |
| *150(c): Minimum R-13 wall insulation in wood framed walls or equivalent U-factor in metal frame walls (does not apply to exterior mass walls) | _____ | _____ | _____ |
| *150(d): Minimum R-13 raised floor insulation in framed floors or equivalent U-factor | _____ | _____ | _____ |
| 150(e): Installation of Fireplaces, Decorative Gas Appliances and Gas Logs | | | |
| 1. Masonry and factory-built fireplaces have: | | | |
| a. Closeable metal or glass door covering the entire opening of the firebox | _____ | _____ | _____ |
| b. Outside air intake with damper and control, flue damper and control | _____ | _____ | _____ |
| 2. No continuous burning gas pilot lights allowed | _____ | _____ | _____ |
| 150(f): Air retarding wrap installed to comply with Sec. 151 meets requirements specified in ACM Residential Manual | _____ | _____ | _____ |
| 150(g): Vapor barriers mandatory in Climate Zones 14,16 only | _____ | _____ | _____ |
| 150(l): Slab edge insulation - water absorption rate for the insulation material without facings no greater than 0.3%, water vapor permeance rate no greater than 2.0 perm/inch | _____ | _____ | _____ |
| 118: Insulation specified or installed meets insulation quality standards. Indicate type and include CF-6R form | _____ | _____ | _____ |
| 116-17: Fenestration Products, Exterior Doors and Infiltration/Exfiltration Controls | | | |
| 1. Doors and windows between conditioned and unconditioned spaces designed to limit air leakage | _____ | _____ | _____ |
| 2. Fenestration products (except field-fabricated) have | _____ | _____ | _____ |

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- label with certified U-factor, certified Solar Heat Gain Coefficient (SHGC), and infiltration certification
3. Exterior doors and windows weatherstripped; all joints and penetrations caulked and sealed

SPACE CONDITIONING, WATER HEATING AND PLUMBING SYSTEM MEASURES

- 110-113: HVAC equipment, water heaters, showerheads and faucets certified by the Energy Commission
150(h): Heating and/or cooling loads calculated in accordance with ASHRAE, SMACNA or ACCA
150(i): Setback thermostat on all applicable heating and/or cooling systems
150(j): Water system pipe and tank insulation and cooling systems line insulation
1. Storage gas water heaters rated with an Energy Factor less than 0.58 must be externally wrapped with insulation having an installed thermal resistance of R12 or greater
2. Back-up tanks for solar system, unfired storage tanks, or other indirect hot water tanks have R-12 external insulation or R-16 internal and indicated on the exterior of the tank showing the R-value
3. The following piping is insulated according to Table 150-A/B or Equation 150-A Insulation Thickness:
1. First 5 feet of hot and cold water pipes closest to water heater tank, non-recirculating systems, and entire length of recirculating sections of hot water pipes shall be insulated to Table 150B
2. Cooling system piping (suction, chilled water, or brine lines), piping insulated between heating source and indirect hot water tank shall be insulated to Table 150-B and Equation 150-A
4. Steam hydronic heating systems or hot water systems >15 psi, meet requirements of Table 123-A
5. Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance and wind
6. Insulation for chilled water piping and refrigerant suction piping includes a vapor retardant or is enclosed entirely in conditioned space
7. Solar water-heating systems/collectors are certified by the Solar Rating and Certification Corporation
*150(m): Ducts and Fans
1. All ducts and plenums installed, sealed and insulated to meet the requirements of the CMC Sections 601, 602, 603, 604, 605 and Standard 6-5; supply-air and return-air ducts and plenums are insulated to a minimum installed level of R-4.2 or enclosed entirely in conditioned space. Openings shall be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181,

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UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than 1/4 inch, the combination of mastic and either mesh or tape shall be used

2. Building cavities, support platforms for air handlers, and plenums defined or constructed with materials other than sealed sheet metal, duct board or flexible duct shall not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms shall not be compressed to cause reductions in the cross-sectional area of the ducts

3. Joints and seams of duct systems and their components shall not be sealed with cloth backed rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands

4. Exhaust fan systems have back draft or automatic dampers

5. Gravity ventilating systems serving conditioned space have either automatic or readily accessible, manually operated dampers

6. Protection of Insulation. Insulation shall be protected from damage due to sunlight, moisture, equipment maintenance and wind. Cellular foam insulation shall be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation that can cause degradation of the material

7. Flexible ducts cannot have porous inner cores

114: Pool and Spa Heating Systems and Equipment

1. A thermal efficiency that complies with the Appliance Efficiency Regulations, on-off switch mounted outside of the heater, weatherproof operating instructions, no electric resistance heating and no pilot light

2. System is installed with:
a. At least 36 inches of pipe between filter and heater for future solar heating
b. Cover for outdoor pools or outdoor spas.

3. Pool system has directional inlets and a circulation pump time switch

115: Gas-fired central furnaces, pool heaters, spa heaters or household cooking appliances have no continuously burning pilot light (Exception: Non-electrical cooking appliances with pilot < 150 Btu/hr)

118(i): Cool Roof material meets specified criteria

RESIDENTIAL LIGHTING MEASURES

n/a De-sign-er En-force-ment

150(k)1: HIGH EFFICACY LUMINAIRES OTHER THAN OUTDOOR HID: contain only high efficacy lamps as outlined in Table 150-C, and do not contain a medium screw base socket (E24/E26). Ballast for lamps 13 watts or greater are electronic and have an output frequency no less than 20 kHz

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- 150(k)1: HIGH EFFICACY LUMINAIRES - OUTDOOR HID: contain only high efficacy lamps as outlined in Table 150-C, luminaire has factory installed HID ballast
150(k)2: Permanently installed luminaires in kitchens shall be high efficacy luminaires. Up to 50 percent of the wattage, as determined in Sec. 130(c), of permanently installed luminaires in kitchens may be in luminaires that are not high efficacy luminaires, provided that these luminaires are controlled by switches separate from those controlling the high efficacy luminaires
150(k)3: Permanently installed luminaires in bathrooms, garages, laundry rooms, utility rooms shall be high efficacy luminaires OR are controlled by an occupant sensor(s) certified to comply with Section 119(d) that does not turn on automatically or have an always on option
150(k)4: Permanently installed luminaires located other than in kitchens, bathrooms, garages, laundry rooms, and utility rooms shall be high efficacy luminaires (except closets less than 70 ft2), OR are controlled by a dimmer switch OR are controlled by an occupant sensor(s) that complies with Section 119(d) that does not turn on automatically or have an always on option
150(k)5: Luminaires that are recessed into insulated ceilings are approved for zero clearance insulation cover (IC) and are certified air tight to ASTM E283 and labeled as air tight (AT) to less than 2.0 CFM at 75 Pascals
150(k)6: Luminaires providing outdoor lighting and permanently mounted to a residential building or to other buildings on the same lot shall be high efficacy luminaires (not including lighting around swimming pools/water features or other Article 680 locations) OR are controlled by occupant sensors with integral photo control certified to comply with Section 119(d)
150(k)7: Lighting for parking lots for 8 or more vehicles shall have lighting that complies with Sec. 130, 132, and 147. Lighting for parking garages for 8 or more vehicles shall have lighting that complies with Sec. 130, 131, and 146
150(k)8: 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 OR are controlled by an occupant sensor(s) certified to comply with Section 119(d)

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Project Title..... Your Name's Residence           Date..04/29/08 23:55:27
Project Address..... Your Street,                *****
                                           Your City, CA 00000.    *v7.20*
Documentation Author... Kathleen Taylor          *****
                                           Taylor Design & Drafting
                                           P.O. Box 905
                                           Rocklin, CA 95677
                                           916-624-1649
Climate Zone..... 12
Compliance Method..... MICROPAS7 v7.20 for 2005 Standards by Enercomp, Inc.
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| MICROPAS7 v7.20 File-Name Wth-CTZ12S05 Program-HVAC SIZING |
| User#-MP2078 User-Taylor Design & Drafting Run-Sample |
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GENERAL INFORMATION

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Floor Area..... 3109 sf
Volume..... 31960 cf
Front Orientation..... Front Facing 0 deg (N)
Sizing Location..... ORANGEVALE
Latitude..... 38.7 degrees
Winter Outside Design..... 24 F
Winter Inside Design..... 70 F
Summer Outside Design..... 100 F
Summer Inside Design..... 75 F
Summer Range..... 36 F
Interior Shading Used..... Yes
Exterior Shading Used..... Yes
Overhang Shading Used..... Yes
Latent Load Fraction..... 0.19

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HEATING AND COOLING LOAD SUMMARY

| Description | Heating (Btu/hr) | Cooling (Btu/hr) |
|-----------------------------------|---------------------|---------------------|
| Opaque Conduction and Solar..... | 30281 | 9229 |
| Glazing Conduction and Solar..... | 12839 | 15537 |
| Infiltration..... | 13764 | 4624 |
| Internal Gain..... | n/a | 2060 |
| Ducts..... | 14596 | 8542 |
| Sensible Load..... | 71481 | 39992 |
| Latent Load..... | n/a | 7966 |
| Minimum Total Load | 71481 | 47958 |

Note: The loads shown are only one of the criteria affecting the selection of HVAC equipment. Other relevant design factors such as air flow requirements, outside air, outdoor design temperatures, coil sizing, availability of equipment, oversizing safety margin, etc., must also be considered. It is the HVAC designer's responsibility to consider all factors when selecting the HVAC equipment.