

CITY OF SACRAMENTO

Permit No: 0409005

1231 I Street, Sacramento, CA 95814

Insp Area: 3

Thos Bros: 318D5

Site Address: 5761 POWER INN RD SAC

Sub-Type: COM

Parcel No: 027-0350-010

Housing (Y/N): N

CONTRACTOR

KNOLL SYSTEMS CORPORATION
5375 CLAYTON RD
CONCORD CA 94531

OWNER

MAINWARNING TOM
5761 POWER INN RD
SACRAMENTO CA 95824

ARCHITECT

Nature of Work: C/O ROOF TOP HVAC PACKAGE SYSTEM

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 C20 License Number 784349 Date 6/7/04 Contractor Signature [Signature]

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 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

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 herby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 6/7/04 Applicant/Agent Signature [Signature]

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.

[X] 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:

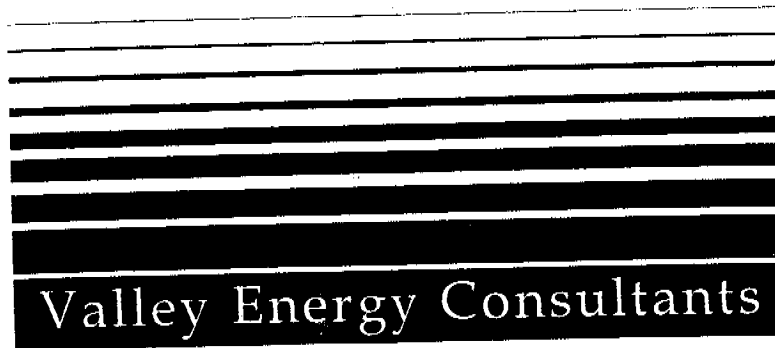
Carrier STATE COMPENSATION INS FUND Policy Number 1740996-03 Exp Date 9/8/04

(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 6/7/04 Applicant Signature [Signature]

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.

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



Title 24
Energy Compliance Documentation

Prepared for: Knoll Systems Corps.

Project Title: 5716 Power Inn Road
Sacramento, CA

ISSUED
City of Sacramento

JUN 07 2004

NORTH PERMIT
CENTER

**PROVIDE AIR BALANCE
REPORT FOR FINAL
MECHANICAL INSPECTION**

**THE APPROVAL OF ALL
PLUMBING AND MECHANICAL WORK
IS SUBJECT TO FIELD INSPECTIONS**

JMT 6/7/04

*Verify (E) gas pipe sizing for (N)
HVAC unit.*

CITY COPY

Mechanical Mandatory Measures

EQUIPMENT AND SYSTEM EFFICIENCIES

- §111 Any appliance for which there is a California standard established in the Appliance Efficiency Regulations with comply with the applicable standard.
- §115(a) Fan type central furnaces shall not have pilot lights.
- §123 Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC equipment, shall be insulated in accordance with Standards Section 123.
- §124 Air handling duct systems shall be installed and insulated in compliance with Sections 601, 603 and 604 of the Uniform Mechanical Code.

CONTROLS

- §122(e) Each space conditioning system shall be installed with one of the following:
- §122(E)1A Each space conditioning system serving building types such as offices and manufacturing facilities (and all others not explicitly exempt from the requirements of section 122(d)) shall be installed with an automatic time switch with an accessible manual override that allows operation of the system during off-hours for up to 4 hours. The time switch shall be capable of programming different schedules for weekdays and weekends; incorporate an automatic holiday "shut off" feature that turns off all loads for at least 24 hours, then resumes the normally scheduled operation; and has program backup capabilities that prevent the loss of the device's program and time settings for at least 10 hours if power is interrupted; or
- §122(e)1B An occupancy sensor to control the operating period of the systems; or
- §122(c)1C A 4-hour timer that can be manually operated to control the operating period of the system.
- §122(c)2 Each space conditioning system shall be installed with controls that temporarily restart and temporarily operate the system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.
- §122(g) Each space conditioning system serving multiple zones with combined conditioned floor area more than 25,000 square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided with isolation devices, such as valves or dampers, that allow supply of heating or cooling to be setback or shut off independently of other isolation areas; and shall be controlled by a time control device as described above.

- §122(a&b) Each space conditioning zone shall be controlled by an individual thermostatic control that responds to temperature within the zone. Where used to control heating, the control shall be adjustable down to 55°F or lower. For cooling, the control shall be adjustable up to 85°F or higher. Where used to control both heating and cooling, the control shall be capable of providing a deadband of at least 5°F within which the supply of heating and cooling is shut off or reduced to a minimum.
- §122(c) Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to authorized personnel.
- §122(b) Heat pumps shall be installed with controls to prevent electric resistance supplementary heater operation when the heating load can be met by the heat pump alone.

VENTILATION

- §121(c) Controls shall be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified on these plans.
- §122(f) Gravity or automatic dampers interlocked and closed on the fan shutdown shall be provided on the outside air intakes and discharges of all space conditioning and exhaust systems.
- §122(f) All gravity ventilating systems shall be provided with automatic or readily accessible manually operated dampers in all openings to the outside, except for combustion air openings.
- §121(f)1 Air Balancing: The system shall be balanced in accordance with the National Environmental Balancing Bureau (NEBB) Procedural Standards (1983), or Associated Air Balance Council (AABC) National Standards (1989); or
- §121(f)2 Outside Air Certification: The system shall provide the minimum outside air as shown on the mechanical drawings, and shall be measured and certified by the installing licenced C-20 Mechanical contractor and certified by (1) the design mechanical engineer, (2) the installing licenced C-20 mechanical contractor, or (3) the person with overall responsibility for the design of the ventilation system; or
- §121(f)3 Outside Air Measurement: The System shall be equipped with a calibrated local or remote device capable of measuring the quantity of outside air on a continuous basis and displaying that quantity on a ready accessible displays; or
- §121(f)4 Another method approved by the Commission.

TITLE 24 REPORT

Title 24 Report for:

5716 Power Inn Road
5716 Power Inn Road
Sacramento, CA

Project Designer:

Knoll Systems Corp.
5375 Clayton Road
Concord, CA 94521
(877) 625-6655

Report Prepared By:

Ryan Smith
Valley Energy Consultants
10308 Placer Lane, Suite #200
Sacramento, CA 95827-2511
(916) 364-1786

Job Number:

40537

Date:

6/1/2004

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 2001 Building Energy Efficiency Standards.

This program developed by EnergySoft, LLC (415) 883-5900.

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 1 of 3 **PERF-1**

PROJECT NAME	5716 Power Inn Road	DATE	6/1/2004
PROJECT ADDRESS	5716 Power Inn Road Sacramento		Building Permit #
PRINCIPAL DESIGNER - ENVELOPE	Knoll Systems Corp.	TELEPHONE	(877) 625-6655
DOCUMENTATION AUTHOR	Valley Energy Consultants	TELEPHONE	(916) 364-1786
		Checked by/Date	
		Enforcement Agency Use	

GENERAL INFORMATION		CLIMATE ZONE
DATE OF PLANS	BUILDING CONDITIONED FLOOR AREA	12
	875 Sq.Ft.	
BUILDING TYPE	<input checked="" type="checkbox"/> NONRESIDENTIAL	<input type="checkbox"/> HIGH RISE RESIDENTIAL
		<input type="checkbox"/> HOTEL/MOTEL GUEST ROOM
PHASE OF CONSTRUCTION	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> ADDITION
		<input checked="" type="checkbox"/> ALTERATION
		<input type="checkbox"/> EXISTING + ADDITION

STATEMENT OF COMPLIANCE

This Certificate of Compliance lists the building features and performance specifications needed to comply with Title 24, Parts 1 and 6, of the State Building Code. This certificate applies only to a Building using the performance compliance approach.

DOCUMENTATION AUTHOR: Ryan Smith
 SIGNATURE: *Ryan Smith*
 DATE: 6-1-2004

The Principal Designers hereby certify that the proposed building design represented in the construction documents and modelled for this permit application are consistent with all other forms and worksheets, specifications, and other calculations submitted with this permit application. The proposed building as designed meets the energy efficiency requirements of the State Building Code, Title 24, Part 6.

- ENV. LTG. MECH.
- I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed as a civil engineer, mechanical engineer, electrical engineer or architect.
 - I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code Section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor preparing documents for work that I have contracted to perform.
 - I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538, and 6737.1. (These sections of the Business and Professions Code are printed in full in the Nonresidential Manual.)

ENVELOPE COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	Envelope Compliance Not In The Scope Of This Submittal
Required Forms	
PRINCIPAL ENVELOPE DESIGNER - NAME	SIGNATURE LIC. NO. DATE

LIGHTING COMPLIANCE

Indicate location on plans of Note Block for Mandatory Measures	Lighting Compliance Not In The Scope Of This Submittal
Required Forms	
PRINCIPAL LIGHTING DESIGNER - NAME	SIGNATURE LIC. NO. DATE

MECHANICAL COMPLIANCE

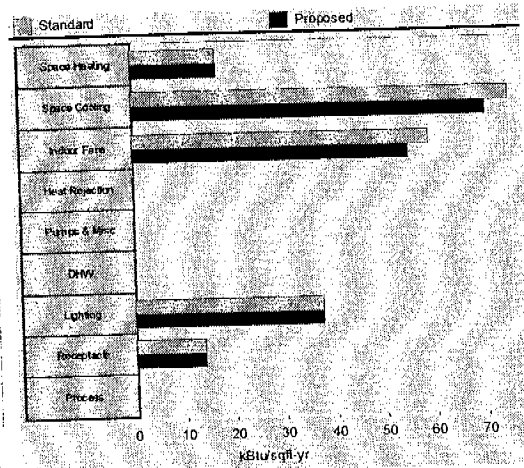
Indicate location on plans of Note Block for Mandatory Measures	MECH-1, MECH-2, MECH-3
Required Forms	
PRINCIPAL MECHANICAL DESIGNER - NAME	SIGNATURE LIC. NO. DATE
Knoll Systems Corp.	

PERFORMANCE CERTIFICATE OF COMPLIANCE Part 2 of 3 **PERF-1**

5716 Power Inn Road DATE 6/1/2004

ANNUAL SOURCE ENERGY USE SUMMARY (kBtu/sqft-yr)

ENERGY COMPONENT	Standard Design	Proposed Design	Compliance Margin
Space Heating	16.69	16.80	-0.11
Space Cooling	75.09	70.29	4.80
Indoor Fans	58.97	54.86	4.11
Heat Rejection	0.00	0.00	0.00
Pumps & Misc.	0.00	0.00	0.00
Domestic Hot Water	0.00	0.00	0.00
Lighting	37.37	37.37	0.00
Receptacle	13.71	13.71	0.00
Process	0.00	0.00	0.00
TOTALS:	201.83	193.03	8.80



Percent better than Standard: 4.4% (4.4% excluding process)

BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(West) 270 deg	Conditioned Floor Area	875 sqft.
Number of Stories	1	Unconditioned Floor Area	0 sqft.
Number of Systems	1	Conditioned Footprint Area	875 sqft.
Number of Zones	3		

	Orientation	Gross Area	Glazing Area	Glazing Ratio
Front Elevation	(West)	175 sqft.	161 sqft.	92.0%
Left Elevation	(North)	0 sqft.	0 sqft.	0.0%
Rear Elevation	(East)	0 sqft.	0 sqft.	0.0%
Right Elevation	(South)	245 sqft.	58 sqft.	23.7%
Total		420 sqft.	219 sqft.	52.1%
Roof		875 sqft.	0 sqft.	0.0%

	Standard	Proposed	LEED™ Energy & Atmosphere Credit
Lighting Power Density	1.274 W/sqft.	1.274 W/sqft.	Savings vs. Title 24 ¹ 4.68%
Prescriptive Env. Heat Loss	153 Btu/h	327 Btu/h	Energy Performance Credit ² 2 Points
Prescriptive Env. Heat Gain	18,819 Btu/h-F	45,477 Btu/h-F	

1. excludes process and receptacle 2. see LEED table 8-c or 8-d

Remarks:

CERTIFICATE OF COMPLIANCE

Performance **MECH-1**

PROJECT NAME
5716 Power Inn Road

DATE
6/1/2004

SYSTEM FEATURES

SYSTEM NAME	AC-1	MECHANICAL SYSTEMS		NOTE TO FIELD
TIME CONTROL	Programmable Switch			
SETBACK CONTROL	Heating & Cooling Required			
ISOLATION ZONES	n/a			
HEAT PUMP THERMOSTAT?	n/a			
ELECTRIC HEAT?	n/a			
FAN CONTROL	Constant Volume			
VAV MINIMUM POSITION CONTROL?	No			
SIMULTANEOUS HEAT/COOL?	No			
HEATING SUPPLY RESET	Constant Temp			
COOLING SUPPLY RESET	Constant Temp			
HEAT REJECTION CONTROL	n/a			
VENTILATION	Air Balance			
OUTDOOR DAMPER CONTROL	Auto			
ECONOMIZER TYPE	No Economizer			
DESIGN O.A. CFM (MECH-3, COLUMN I)	276 cfm			
HEATING EQUIPMENT TYPE	Gas Furnace			
HEATING EQUIPMENT EFFICIENCY	80% AFUE			
COOLING EQUIPMENT TYPE	Packaged DX			
COOLING EQUIPMENT EFFICIENCY	10.0 SEER / 8.9 EER CARRIER 48GS0300403			
MAKE AND MODEL NUMBER				
PIPE INSULATION REQUIRED?	Yes			
PIPE/DUCT INSULATION PROTECTED?	No			
HEATING DUCT LOCATION	Ducts in Attic	4.2		
R-VALUE				
COOLING DUCT LOCATION	Ducts in Attic	4.2		
R-VALUE				
VERIFIED SEALED DUCTS IN CEILING/ROOF SPACE	No			

CODE TABLES: Enter code from table below into columns above.

HEAT PUMP THERMOSTAT?	ELECTRIC HEAT?	VAV MINIMUM POSITION CONTROL?	SIMULTANEOUS HEAT / COOL?	HEAT AND COOL SUPPLY RESET?	HIGH EFFICIENCY?	PIPE INSULATION REQUIRED?	PIPE/DUCT INSULATION PROTECTED?	SEALED DUCTS IN CEILING/ROOF SPACE?	TIME CONTROL	SETBACK CTRL.	ISOLATION ZONES	FAN CONTROL
									S: Prog. Switch O: Occupancy Sensor M: Manual Timer	H: Heating C: Cooling B: Both	Enter Number of Isolation Zones.	I: Inlet Vanes P: Variable Pitch V: VFD O: Other C: Curve
									VENTILATION B: Air Balance C: Outside Air Cert. M: Out. Air Measure D: Demand Control N: Natural	OUTDOOR DAMPER A: Auto G: Gravity	ECONOMIZER A: Air W: Water N: Not Required EC: Economizer Control See Section 144(e)3	O.A. CFM Enter Outdoor Air CFM. Note: This shall be no less than Col. H on MECH-3.

NOTES TO FIELD - For Building Department Use Only

Run Initiation Time: 06/01/04 10:22:32 Run Code: 1086110552

EnergyPro 3.1 By EnergySoft User Number: 2531 Job Number: 40537 Page: 5 of 8

MECHANICAL EQUIPMENT SUMMARY

Part 1 of 2

MECH-2

PROJECT NAME 5716 Power Inn Road

DATE 6/1/2004

CHILLER AND TOWER SUMMARY

Equipment Name	Equipment Type	Qty.	Efficiency	Tons	Tot. Qty	GPM	BHP	PUMPS		Pump Control
								Motor Eff.	Drive Eff.	

DHW / BOILER SUMMARY

System Name	System Type	Distribution Type	Qty	Rated Input	Vol. (Gals.)	Energy Factor or Recovery Efficiency	Standby Loss or Pilot	TANK INSUL.
								Ext. R-Val.

CENTRAL SYSTEM RATINGS

System Name	System Type	Qty.	HEATING			COOLING			Economizer Type
			Output	Aux. kW	Eff.	Output	Sensible	Efficiency	
CARRIER 48GS0300403	Packaged DX	1	31,000	0.0	80% AFUE	30,460	17,330	10.0 SEER / 8.9 EER	No Economizer

CENTRAL SYSTEM FAN SUMMARY

System Name	Fan Type	Motor Location	SUPPLY FAN				RETURN FAN				
			CFM	BHP	Motor Eff.	Drive Eff.	CFM	BHP	Motor Eff.	Drive Eff.	
CARRIER 48GS0300403	Constant Volume	Blow-Through	1,000	0.48	77.0%	98.0%	none				

Run Initiation Time: 06/01/04 10:22:32 Run Code: 1086110552

MECHANICAL EQUIPMENT SUMMARY

Part 2 of 2

MECH-2

PROJECT NAME
5716 Power Inn Road

DATE 6/1/2004

ZONE TERMINAL SUMMARY

Zone Name	VAV TERMINAL BOX					TERMINAL FAN				BASEBOARD	
	System Type	Qty.	Min. CFM Ratio	Reheat Coil Type	DeltaT	CFM	BHP	Motor Eff.	Drive Eff.	Type	Output

EXHAUST FAN SUMMARY

EXHAUST FAN						EXHAUST FAN					
Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.	Room Name	Qty.	CFM	BHP	Motor Eff.	Drive Eff.

Run Initiation Time: 06/01/04 10:22:32 Run Code: 1086110552

MECHANICAL VENTILATION

MECH-3

PROJECT NAME
5716 Power Inn Road

DATE
6/1/2004

MECHANICAL VENTILATION

A	B	C	D	E	F	G	H	I	J	K
ZONE/SYSTEM	AREA BASIS			OCCUPANCY BASIS			REQ'D O.A. (MAX OF D OR G)	DESIGN OUTDOOR AIR CFM	VAV MIN. RATIO	TRANSFER AIR
	COND. AREA (SF)	CFM PER SF	MIN. CFM (B x C)	NO. OF PEOPLE	CFM PER PERSON	MIN. CFM (ExF)				
Reception	413	1.07	442	13.8	15.0	206	442	206		235
Offices	312	0.15	47	3.1	15.0	47	47	47		
Support	150	0.15	22	1.5	15.0	22	22	22		
AC-1						Total	511	276		

C Minimum Ventilation Rate per Section 121, Table 1-F.
E Based on Expected Number of Occupants or at least 50% of Chapter 10 1997 UBC Occupant Density.
I Must be greater than or equal to H, or use Transfer Air. Design Outdoor Air includes ventilation from Supply Air System & Room Exhaust Fans.
K Must be greater than or equal to (H minus I), and, for VAV, greater than or equal to (H-J).