

MECHANICAL PLAN & NOTES

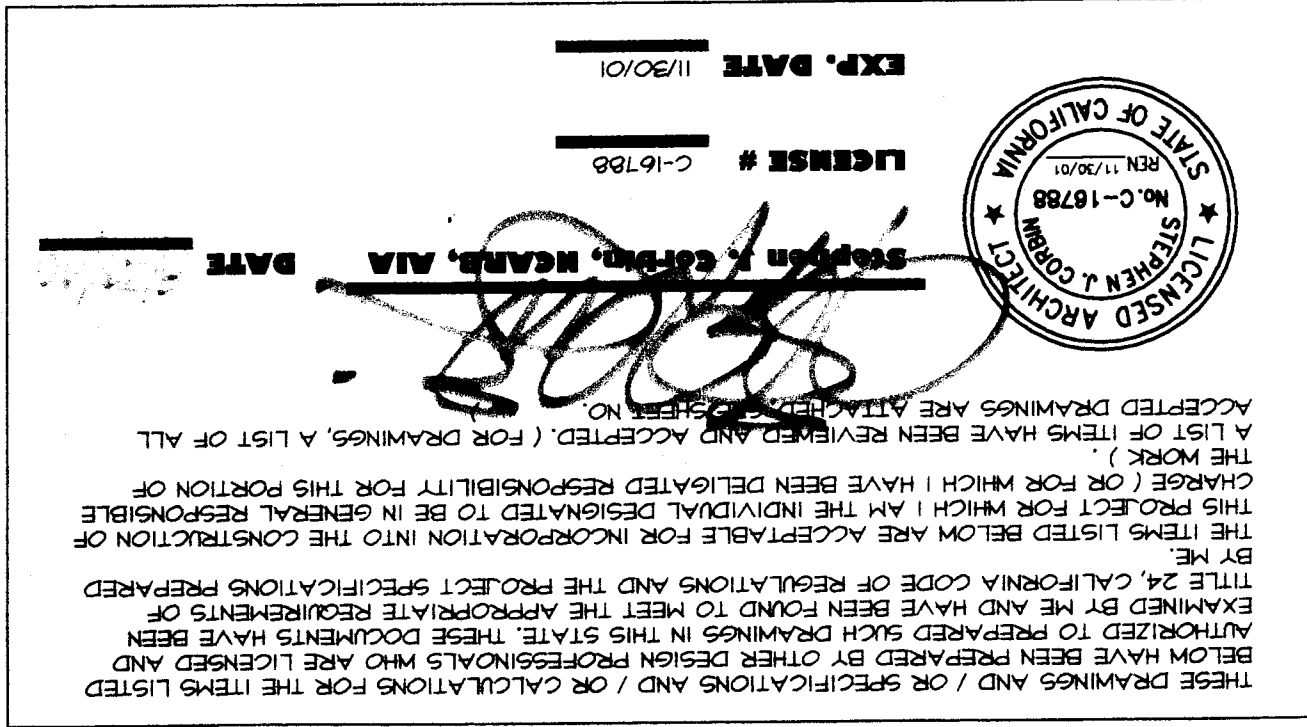
CUSTOMER:

DATE: 10-19-99
SCALE: NONE
DRAWN BY: R.S.
CHECKED BY:
SERIAL NO:

NO	DATE	DESCRIPTION	NO	DATE	DESCRIPTION

SHEET NO. 1

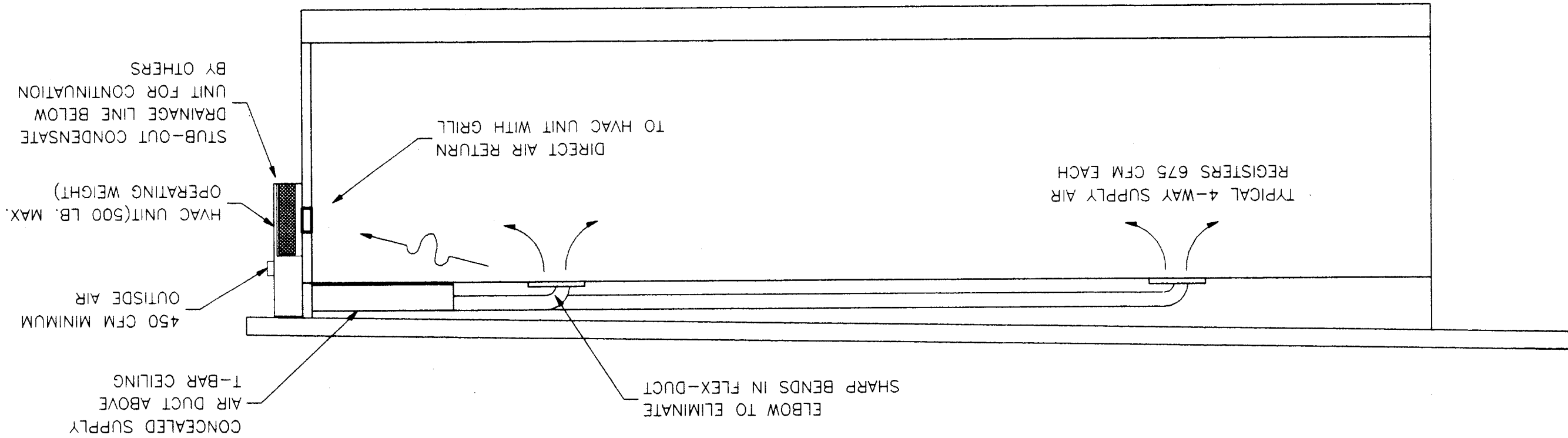
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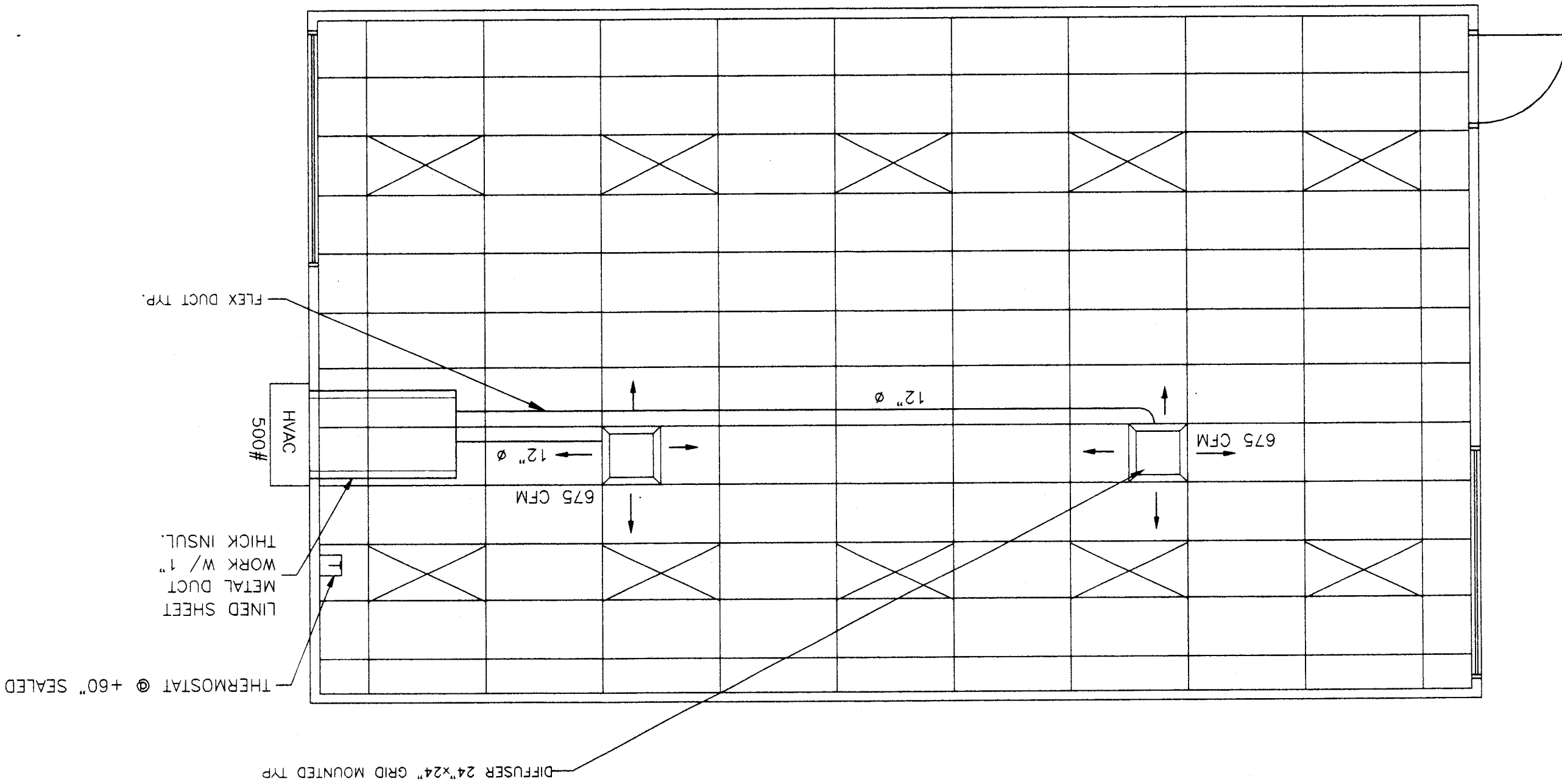
THESE DRAWINGS COMPLY
WITH THE ENERGY CONSERVATION REQUIREMENTS
OF TITLE 24 OF THE STATE OF CALIFORNIA

DUCT SUPPORT
Flex duct to be supported with 1-1/2" o.c. Attach to roller W/2 #8
90 galv. strap @ max 6'-0" o.c. Supply air plenum to be supported with 1-1/2"
SMS @ each end.
Supply air box and diffusers to be supported with (2) 12
ga. hanger wires to box @ opposite corners.
Supply air box and diffusers to be braced with (2) 12 ga.
stock wires to box @ opposite corners. Attach supply air
diffusers to ceiling grid to resist a lateral load equal to
the weight of the diffuser and supply air box W/2 #8 SMS.

HEAT/SUPPLY AIR DUCT CROSS SECTION



HEAT/SUPPLY AIR DUCT LAYOUT



GENERAL NOTES
1. Heat Pump: Single package wall mounted air to air electric heat pump unit shall be rated in accordance with ARI Standard 240-77.
Reference
BARD WH42A-XXXXXX
MARVAIR AVP 42 HPA-08S
All units shall be 230/208 volt, 1 phase system, UL tested & approved or comparable and meet current energy standards.
A.) The system shall maintain an automatically controlled indoor classroom temperature of 78 degrees F. When the outdoor dry bulb temperature varies between 100 degrees F. in the summer B.) The system must maintain the above temperature when the damper is adjusted to use approximately one third fresh air.
Ductwork.
A.) Construct all ductwork of galvanized sheet metal in accordance with C.M.C., Ashrae Guide Equipment volume and Smocon Low Velocity Duct Construction manual latest editions. All ductwork shall be insulated with 1" thick fiberglass duct wrap with vapor barrier. Provide 1" duct attenuation at all ductwork within 2'-0" of HVAC unit.
B.) Non-metallic ductwork option: in accessible concealed portions of duct system rigid 1" fiberglass or insulated flex-duct with vapor barrier may be substituted for sheet metal ductwork. All ductwork within 5' of the HVAC unit and all interface connections shall be metal. Ductwork and reinforcement shall be designed for 2" static pressure. Reference Brands: Owens-Corning fiberglass ductboard, 1" thick, and Micro-ore, TPE 475. Non-metallic ductwork shall conform to NFPA 90-A and SMACNA Class 1 rating. Air duct insulation and linings shall comply with flame spread less than or equal to 25, smoke generation less than or equal to 50. Supply air diffusers shall be 675 CFM max. 15"x15" neck, steel, rigid 1" fiberglass or flexduct ductwork specifically designed to provide air thermal cooling systems. 24"x8"x1" Micro-Aire type #475 Owens-Corning, Knout, Certainteed, or equal and 90- B: UL #131 test, class 1 rating with "SMACNA".
Registers and diffusers: Provide three (Min) 4-way throw air diffusers as manufactured Cornes, Titus, Hart and Cooley, Metolair, Barber-Coleman or Krueger commercial grade grills and registers. Air conditioning controls. Thermostat: Provide electronic programmable thermostat. Thermostat shall have the following functions:
A.) 5 and 2 weekday/weekend programming with 4 separate time/temperature setting for 24-hour period.
B.) Key board lockout switch.
C.) Programmable display.
D.) 2-hour override minimum.
E.) Status indicated Led's.
F.) Battery back-up.
Provide locking clear thermostat cover with thermostat cover with access hole for program override. White Rodgers IF92 @ +60" SEALED.
Thermal insulation:
A.) Roof insulation: R-19 Unfaced.
B.) Walls insulation: R-11 Kraft faced.
C.) Floors insulation: R-11 Kraft faced.
Fireme spread and smoke development shall conform to California Building Code sec. 707.
Factory-made air ducts. Factory-made air ducts shall be approved for the use intended or shall conform to the requirements of U.M.C. Standard No. 6-1. Each portion of a factory-mode air duct system shall be identified by the manufacturer with a label or other suitable identification indicating compliance with U.M.C. Standard No. 6-1 and its class designation. These ducts shall be listed and shall be installed in accordance with the terms of their listing and the requirements of UMC STD. 6-1.

