CONTROL DIAGRAM

208 V. 3ϕ.

H.W. CIRC. PUMP STARTER W/H.O.A. IN COVER

N.O. MERCOID SWITCH IN BOILER CIR.

SET 2#

SET 2#

SET 2#

SET 2#

K.A.

MASTER STAT. IN OUTSIDE AIR
T-100
T-33C

THERMOMETER

#1 & #2 BOILER FIRING HI-LIMIT CIRCUITS-2 BOILERS

D.A.

SUB-MASTER STAT IN HOT WATER SUPPLY
OSA H.W.
35° 200°
70° 120°
72° PUMPS & BOILER OFF

T-33C T-100

MIX VALVE 4-3# SPRING V-108

N.O. C.

RETURN FROM UNITS

H.W. TO UNITS

H.W. FROM BOILER

SEVEN DAY PROGRAM CLOCK 110 V. 60 CY.

SOLENOID AIR VALVE

N.C. N.O.

MANUAL SWITCH S-215 "MULTI-USE" UNIT #1

ON OFF AUTO.

MAN. SW. "ADMIN. OFFICES" UNIT #2

ON OFF AUTO.

MAN. SW. "KIND. & CLASSROOMS" UNITS #2, #3, #4, & #5

ON OFF AUTO.

BOILER ROOM CONTROLS UNIT #3

15# AIR TO CONTROLS

FILTER & DRY ASSEM.

70-80# AIR

HI PRESSURE AIR COMPRESSOR 1/2 H.P. 110 V. 60 CY. 1 PH.

N.O. MER. SW.

SET G°

REMOTE H.O.A. SW. & PILOT

SUPPLY FAN STARTER (2)

N.O. MER. SW. SET 2°

REMOTE H.O.A. SW. & PILOT LIGHT

M.U. EXH. FAN (1 S.P.) STARTER (1)

EXH. FAN @ WEST END M.O. BLDG.

N.O. MER. SW.

SET 2° TO 14° EACH UNIT.

TOGGLE SWITCH

SUPPLY FAN DISCONNECT SW. WITH OVERLOAD PROTECTION

SOL. AIR VALVE

N.C. N.O.

D-251, 5-10" SPR. EXH. FAN DISCH. IN EXH. FAN DISCH.

C-120 M. PRESS. SQ.

T-400 DA

LOW LIMIT STAT. IN COIL DISCH. SET 60° (2)

D-251, 2 PIST. 5-10" SPR. 24"X24" O.A. D.P.R.

H.W. MIX VALVE (2) 4-8" SPRING

V-107

N.C. C. N.O.

TO RETURN

FROM COIL

H.W. SUPPLY BY-PASS

MULTI-USE BLDG. CONTROL UNIT #1

WEST ZONE

EAST ZONE - IDENTICAL. OMIT EXH. FAN & PPR.

EAST ZONE

TO EAST ZONE OA DPR & AIR VALVE

SUPPLY FAN STARTER

REMOTE H.O.A. SW. & PILOT

N.C. N.O.

D.A.

RM. STAT. SET 72°F. T-400 DA IN HALL

N.C. OUTSIDE AIR DAMPER

N.O. RETURN AIR DAMPER

SOL. AIR VALVE

LOW LIMIT STAT. IN COIL DISCH. SET 60°F. T-320

ADMINISTRATION OFFICES CONTROL UNIT #2

V-107, 3/4", 4-8" SPR., 3 TOP.

H.W. SUPPLY N.C. C. TO RETURN

BY-PASS

N.O.

FR. COIL

ROOM STAT. SET @ 72°F. T-400 DA

H.W. MIX. VALVE 3-6" SPRING V-107, 3 TOP.

H.W. SUPPLY BY-PASS N.C. N.O. TO RETURN FROM COIL

PIST. DIR. MTR. 5-10" SPRING N.C. OUTSIDE AIR DAMPER 12"X18" N.O. RETURN AIR DAMPER 8"X22"

KINDERGARTEN (AIR FLOOR) - (1 REQ'D) (STUB-OUT FOR FUTURE) - UNIT-2

TO UNIT VENTILATOR FAN CIRCUIT

P.E. SW. C-271

T-400 DA @ 72°F.

AVERAGING BULB

T-835 LOW LIMIT STAT. IN UNIT DISCH. SET @ 60°F.

V-125 H.W. MIX. VALVE 4-8" SPR., 3/4", 2 TOP.

H.W. SUPPLY N.C. C. TO RET. N.O. TO COIL

D-106 DPR MTR. 2-6" O.A. DPR CLOSED R.A. " OPEN 7-11" O.A. " OPEN MAX. R.A. " CLOSED.

NOTE: PROVIDE "STUB OUT" FOR FUTURE CLASSRM. WING.

CLASSROOMS (UNIT VENTILATORS) & CONFERENCE RM. (11 REQ'D)

V-150 N.O. FREE CONVOLUTE VALVE, 4-8" SPR., 1/4", #1 TOP.

T-400 DA. STAT, SET 72°F.

TEACHERS LOUNGE - UNIT #4

BOILER #2

BOILER #1

3" MAIN GAS SUPPLY

MANUAL MAIN. S.O. COCK

3" GAS

COMB. AIR DAMPER (DRAFT INTAKE)

2" GAS

1 1/2" MAN. S.O. COCK

"DUNGAS GAS VALVE PER "GENERAL CONTROLS" B-355-1 1/2" "ELEC. SOLENOID 115/24 V. W/ TRANSF. W/ DAMPER ARM.

MAN. SET NEEDLE VALVE IN PILOT LINE

1/4" SOLENOID GAS VALVE IN PILOT LINE

LOW PRESSURE GAS REGULATOR "GENERAL" V-300, 1# REQ'D.

HI-LIMIT CUT-OUT IN H.W. W/ MANUAL RESET. SET @ 205°F.

PILOT FLAME PROTECTOR RELAY - PER MANUAL B. 2A 190 W/ FLAME ROD, TRANSF. COMPLETE

NOTE: ALL GAS FIRING SAFETY CONTROLS TO BE WIRED IN SERIES; BOILER #1 & #2 HAVE IDENTICAL CONTROLS.

SCHEMATIC BOILER FIRING SAFETY CONTROLS

NOTE: PACKAGED BOILER WITH INTEGRAL CONTROLS AS INCLUDED EQUIPMENT SHALL BE PROVIDED WITH ALL COMPONENTS AS INDICATED AND SPECIFIED.

"DAVIDSON" EXHAUST FAN UNIT #28 OR EQUAL 4000 C.F.M. @ 1/4" S.P. 573 R.P.M. 3/4 H.P. MOTOR 208 V-3 ϕ 60~

1 1/2" x 1 1/2" x 1/8" ANGLE SUPPORTS WELDED TO ROOF & UNIT

SEE STRUCTURAL FRAMING DETAIL

ROOF

25" x 25" DUCT

9"

9"

1"

DOUBLE WALL 22 GA G.I. METAL WITH METAL SPACERS

CEILING LINE

12'-6"

CONNECT TO "DOHRCO XTRACTAIRE" FURNISHED BY KITCHEN EQUIPMENT CONTRACTOR

SECTION — "Q" — "Q"

SCALE 3/4" = 1'-0"

EVAP. COOLER:
6,000 C.F.M. @ 1/4" S.W.I.R.A.P., 20" DIA. X 16" FAN WHEEL, 1 H.P. - 208 V. 1 ϕ 50 % MOTOR, WHEEL 1244 @ 400 MAX., PROVIDE W/ ADJ. DRIVE SHEAVE TO "PERMIT" RECTIFICATION OF FAN R.P.M. SETTING TO 300 R.P.M. OR - 25%. APPROX. 2 H.P. CIRC. WATER PUMP; CONTRACTOR SHALL PROVIDE ACCESS PANEL IN CEILING & ANCHOR BOLT TO CONC. SLAB, W/ 1/4" x 1" A.B.'s.
EXAMPLE: "WRIGHT" MOD. 65, WITH W-65 RECIRC. PUMP, 65 F.V.C. (FLOAT VALVE) & W.C.K.-C-3/4" WATER CONT. EXP. SINGLE SPEED MOTOR SWITCH PER WESTINGHOUSE CLASS 10-223 - 2 POLE, ARMA 1, WITH O.C. PROTECTION.

VALVE: 20# - COMBO EXISTING UNIT - AIR COOLED, RATED 1400 ST.CU.FT. @ 20# SUCTION, 100° AMBIENT, MTD. ON PAINTED BASE, STEEL FRAME, ANCHOR BOLTED TO CONC. SLAB.
EXAMPLE: "REMINEX" MODEL A 10 C, 1 H.P., 208 V. 3 ϕ 60 %; PROVIDE 24 GA. GALV. METAL PROTECTING COVER, 16" L., 14" MIN. LINE SIZES.

D-X COOLING COIL:
RATED 6000 BTU/HR @ 10° F. AT. WITH 14" W.P., 1100 C.F.M. FULL-MOTIVE, COMPLETE W/ THERMAL EXP. VALVE, MOTOR SNI W/ INDICATOR LIGHT FURNISHED PER ELECT.
EXAMPLE: "RECOLD" DELTA D1-6T-10" HEIGHT X 34" LENGTH, 1/2 H.P., 120 V. 1 ϕ 60 % MOISTURE SUCTION W/ ADJUSTABLE ARMS: FLOAT

STORAGE

24"X24" RISER

24"X24"

EVAP. COOLER ABOVE SNI.

21"X16"

WALK IN REFRIG.

GARBAGE

36"X12" DISCH. GRILLE PRE "TYTTLE & BAILEY" T-6A-VERT. FOCO BLADS. NOTE: REAR BLES., MTD. @ 34"x2" AFF.

3000 CFM

℄ OF CORE.

9000 CFM.

36"X12" 7/8" T-6A.

NOTE: EXTERNALLY INSULATE COOLER DUCT W/ 1" x 12" GLASS BLANKET.

"DOHRCO X-TRACTAIRE"

MIXER

COOKS TABLE

WORK TABLE

KITCHEN

31-0" X 12'-6" 18GA ALUM. RANGE HOOD W/ GREASE EXTRACTOR, EQUIP. SHELVES.

BAKERS TABLE

RANGE

OVEN

REFRIG.

WORK TABLE

SCULLERY

EXHAUST FAN

P

P

CONFERENCE ROOM

WATER HEATER

TOILET

EX. FAN

RM. THERMOSTAT @ +5'-6"

SEE SHT. M-10

SCALE 1/4" = 1'-0"

"NESBITT" UNIT VENTILATOR MODEL 554-TYPE H.R. 35.2 MBH 500 C.F.M.

45 C.F.M. @ 180° F. IN LET., 160° F. OUTLET, 700 WATTS, 120 V. 1 ϕ CONTROL 1202 ABOVE, FOR CLASSROOMS.

32" X 10 3/8" O.A. LOUVRE

1" H.W. & H.W.R.; FOR CONT. REF. H-1

SUPPLY

2" DOWN CATE S.O.V. 1 AROUND CONTROL VALVE PER CONTROL DIAGRAM.

3/8" ϕ REINF. BAR 6" O.C.

6"x12" FORMED CONCR. OPENING. VERIFY EXACT LOCATION W/ MECH. CONTR. AND ENGINEER.

10 3/8" x 32" O.A. LOUVRE

1" H.W. & 1" H.W.R. PIPE UP TO U.V.

SECTION THRU UNIT VENTILATOR

SCALE 3/4" = 1'-0"

"DAVIDSON" EXHAUST FAN UNIT #13 OR EQUAL 1220 C.F.M. @ 1/4" S.P. 1723 R.P.M. 1/4 H.P. MOTOR 120 V-1 ϕ 60~

ROOF LINE

11" x 11 1/2" DUCT THRU ROOF

FIN. CEILING

12" x 12" CEILING GRILLE

SECTION — "P" — "P"

SCALE 3/4" = 1'-0"

STATE OF CALIFORNIA - DEPARTMENT OF PUBLIC WORKS
DIVISION OF ARCHITECTURE
18096 APPROVED DEC 22 1958
APPLICATION NO. Per [signature] PRINCIPAL STRUCTURAL ENGINEER

BOARD OF EDUCATION
PRES.
SEC.
[signature]
11/24/58

HEATING & VENTILATING
FLOOR PLAN - KITCHEN
UNIT ONE

BAKERSFIELD CALIFORNIA

[signature]
WHITNEY BIGGAR ARCHITECT
MEMBER AMERICAN INSTITUTE OF ARCHITECTS
3601 STOCKDALE HIGHWAY
BAKERSFIELD, CALIFORNIA
29285 REGISTRATION C-1128

PROJECT NO. 2158
DRAWN BY:
CHECKED BY
DATE: 11/24/58
SHEET M-9 OF 53