

GENERAL NOTES:

- ALL LOW VOLTAGE WIRING AND FINAL CONNECTIONS SHALL BE SUPPLIED AND INSTALLED BY THE M.C. ALL J-BOXES AND NECESSARY CONDUIT SHALL BE PROVIDED BY E.C. MECHANICAL CONTRACTOR SHALL INSTALL THERMOSTATS AND SENSORS. E.C. SHALL PROVIDE AND INSTALL ALL POWER WIRING OVER 24 VOLTS INCLUDING CONDUIT AND J-BOXES AS REQUIRED, UNLESS OTHERWISE NOTED. SEE ELECTRICAL SHEETS.
- THE MECHANICAL CONTRACTOR SHALL CERTIFY THAT THE TEMPERATURE CONTROL SYSTEM HAS BEEN INSTALLED, AS SPECIFIED AND HAS BEEN TESTED TO ASSURE THAT CONTROL ELEMENTS ARE CALIBRATED, ADJUSTED, AND IN PROPER WORKING CONDITION. A COPY OF THE CERTIFICATION SHALL BE FURNISHED TO THE CODE ENFORCEMENT OFFICIAL. M.C. SHALL INCLUDE COPY OF THE CONTROL SYSTEM CERTIFICATION IN OPERATION & MAINTENANCE MANUAL PROVIDED TO THE OWNER.
- SEE "H" SHEETS FOR HOOD CONTROL PANEL WIRING DIAGRAM, PROVIDED BY OWNER WITH HOODS.

HVAC SEQUENCE OF OPERATION

M.C. SHALL SET THERMOSTAT 'OCCUPIED' AND 'UNOCCUPIED' MODES TO OWNER'S OPERATION SCHEDULE.

NORMAL OPERATION (OCCUPIED):

AC-1 AND AC-2 CONDENSER FANS SHALL BE SET TO RUN ON DEMAND DURING OCCUPIED TIMES VIA PROGRAMMABLE THERMOSTAT.

EXISTING EF-2A AND EF-2B SHALL BE WIRED THROUGH LIGHTING CIRCUIT AND OPERATE WHEN LIGHTS ARE ON.

EF-1, SF-1, AC-1 AND AC-2 EVAPORATOR FAN SHALL OPERATE CONTINUOUSLY UPON ACTIVATION OF KITCHEN HOOD SWITCH. INTERLOCK WIRING, RELAYS, AND CONTACTS FOR THIS ARE INCLUDED INTERNALLY IN THE HOOD ELECTRICAL CONTROL PANEL. SEE DETAILS THIS SHEET AND "H" SHEETS.

UPON DEACTIVATION OF THE KITCHEN HOOD SWITCH, ALL AIR HANDLING UNITS SHALL BE CONTROLLED VIA INDIVIDUAL THERMOSTATS.

THE TEMPERATURE SCHEDULE SET POINTS SHALL BE SPECIFIC FOR EACH RTU AND SHALL BE FIELD ADJUSTABLE.

SPACE TEMPERATURE SET POINTS: AC-1: 78°F COOLING, 88°F HEATING

AC-2: 75°F COOLING, 70°F HEATING

AC-1 AND AC-2 COOLING/HEATING SWITCHOVER SHALL BE AUTOMATIC BASED ON THE SPACE DEMAND. OUTSIDE AIR INTAKE ON ECONOMIZERS OR DAMPERS SHALL BE IN MINIMUM OPEN POSITION TO DELIVER CFM'S INDICATED IN AIR BALANCE SCHEDULE ON SHEET M2 OR SHALL FOLLOW THE ECONOMIZER OPERATION DESCRIBED BELOW.

ECONOMIZER OPERATION:

THE RTU'S EQUIPPED WITH ECONOMIZERS (SEE UNITS SCHEDULE ON SHEET M2) SHALL UTILIZE "FREE COOLING" AS THE FIRST STAGE OF COOLING. WHEN OUTDOOR AIR ENTHALPY IS LOWER THAN THE MIXED AIR ENTHALPY, OUTSIDE AIR INTAKE DAMPERS SHALL MODULATE FROM MIN. TO MAX. OPEN POSITION AND SPACE RETURN AIR DAMPERS SHALL MODULATE FROM MAX. TO MIN. IF THE OUTSIDE AIR ALONE CANNOT SATISFY THE SPACE COOLING DEMAND, THE COMPRESSORS SHALL BE ENERGIZED IN STAGES. WHEN OUTDOOR AIR ENTHALPY IS HIGHER THAN MIXED AIR ENTHALPY, OR WHEN THE LOW LIMIT SENSOR LOCATED IN RECHARGE AIR REACHES ITS SET POINT (85°F → 80°F), THEN OUTDOOR AIR AND RETURN AIR DAMPERS SHALL BE SET TO DELIVER MINIMUM O.A. CFM'S INDICATED IN THE AIR BALANCE SCHEDULE.

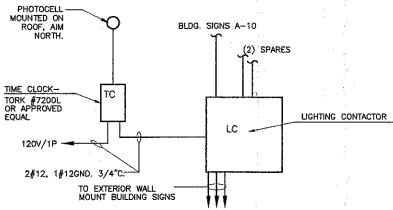
NIGHT SETBACK OPERATION (UNOCCUPIED):

SPACE TEMPERATURE SET POINTS: AC-1 AND AC-2: 85°F COOLING, 55°F HEATING

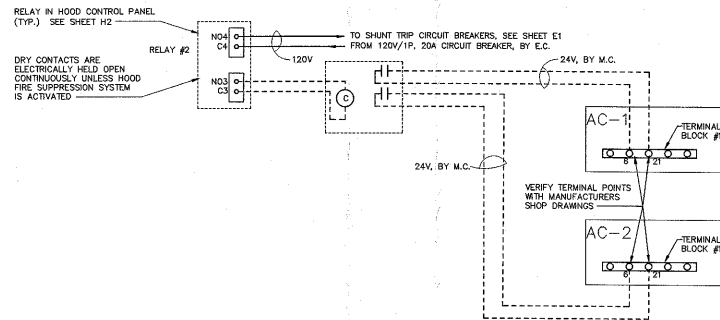
AC-1 AND AC-2 EVAPORATOR FAN, COMPRESSORS AND HEATER SHALL RUN ON DEMAND ONLY. ANY MOTORIZED OUTSIDE AIR DAMPERS SHALL BE IN CLOSED POSITION.

EMERGENCY OPERATION:

E.C. SHALL WIRE ANSUL SYSTEMS ON COOKING HOODS SO THAT UPON FIRE DETECTION OR MANUAL ACTIVATION, THE MAKE-UP AIR FAN SF-1, AC-1 AND AC-2 EVAPORATOR FAN SHALL BE SHUT DOWN, ALL POWER TO EQUIPMENT UNDER HOOD SHALL BE ISOLATED, WHILE THE EXHAUST FANS SHALL CONTINUE TO OPERATE. A MECHANICAL GAS VALVE SHALL ISOLATE ALL GAS SUPPLY TO EQUIPMENT UNDER HOODS. EVAPORATOR FAN ON EACH RTU SHALL ALSO BE SHUT DOWN BY INDIVIDUAL SMOKE DETECTOR UPON DETECTING SMOKE.

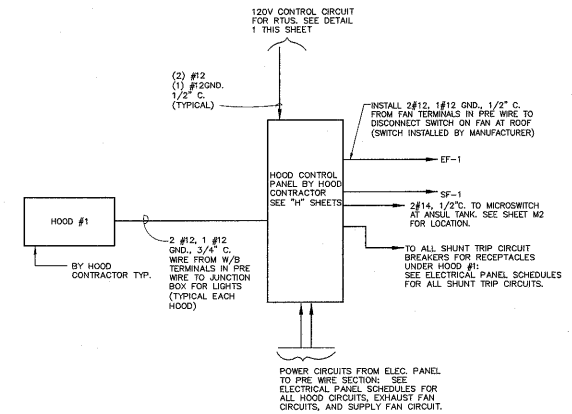


4 BUILDING/POLE TIME CLOCK CONTROLS
N.T.S.



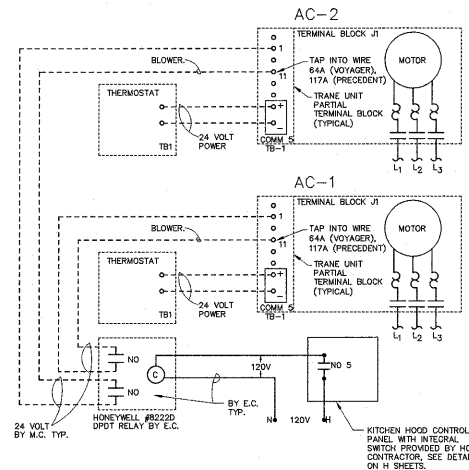
3 EMERGENCY RTU SHUT DOWN DETAIL
N.T.S.

- NOTES:
- DASHED LINE INDICATES WIRING PROVIDED/INSTALLED BY M.C. SOLID LINE WIRING IS PROVIDED BY E.C.
 - AC SHALL SHUT DOWN UPON FIRE DETECTION BY HOOD ANSUL SYSTEM. SEE "HVAC SEQUENCE OF OPERATION" THIS SHEET. COORDINATE WIRING WITH MANUFACTURERS SHOP DRAWINGS. SEE "H" SHEETS.
 - TERMINAL POINT 6 IN RTU IS 24V SOURCE, CONNECTING TO TERMINAL POINT 21 IN RTU WILL SHUT DOWN THE UNIT.



2 EXHAUST WIRING DETAIL
N.T.S.

NOTE #1: ALL WIRING BY E.C.



RTU SYSTEM INTERLOCK CONTROLS (NORMAL OPERATION)

1 E4
N.T.S.

NOTES:



THIS DOCUMENT IS THE PROPERTY OF FIVE GUYS FAMILIAR BURGERS AND FRIES. IT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION OF FIVE GUYS FAMILIAR BURGERS AND FRIES, ANY UNAUTHORIZED USE OF THIS DOCUMENT IS PROHIBITED.

FIVE GUYS FAMILIAR BURGERS AND FRIES
Location: 79 S. MARKET ROAD, CARY, NORTH CAROLINA
Drawing: ELECTRICAL CONTROLS

FIVE GUYS FAMILIAR BURGERS and FRIES

Revisions

PROJECT DATE: 6/26/06
DRAWN BY: RK
CHECKED BY: AC
Sheet No. **E4**