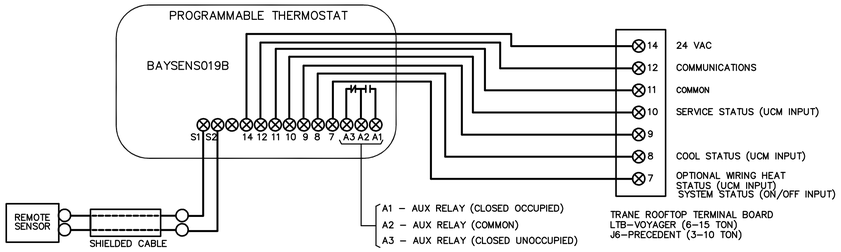
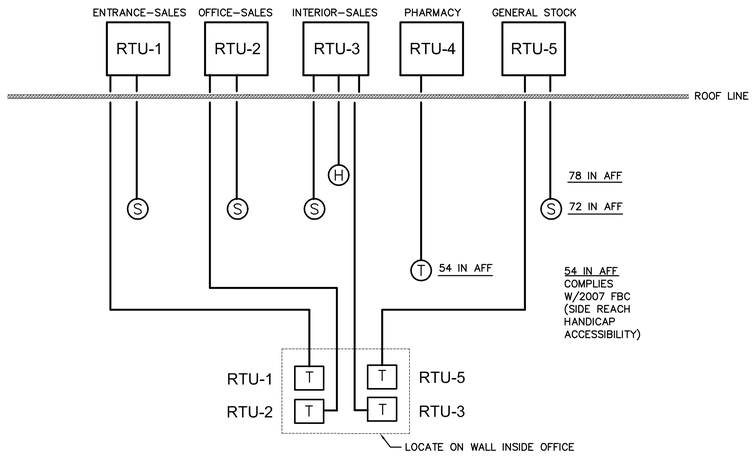
TRANE BRAND HVAC CONTROL DIAGRAM FOR RTUS



HVAC CONTROLS FOR NON - EMS STORES

BILL OF MATERIAL		
THE FOLLOWING CONTROLS TO BE FURNISHED BY TEMPERATURE CONTROL CONTRACTOR		
TAG	TRANE	REMARKS
(T)	BAYSENS019B OR BAYSENS119A	FOR ALL RTU'S FURNISH A SWITCHING BASE FOR HEAT, COOL AND FAN–OFF–AUTO
(S)	BAYSENS077A	REMOTE SENSOR FOR ALL RTU'S EXCEPT PHARMACY
(T)	N/A	FOR RTU'S THAT HAVE THE HUMIDIMIZER OPTION
(H)	BAYSENS036A	HUMIDITY SENSOR, COLUMN OR WALL MOUNTED

HVAC CONTROL CONCEPT OF OPERATION



NOTES :

1. LOCATE THERMOSTATS, HUMIDISTATS AND SENSORS AS SHOWN ON THE MECHANICAL PLAN FOR THE PROJECT, AND MOUNTED AS FOLLOWS:
   a. RTU–1, RTU–2 AND RTU–3 DEVICES SHALL BE COLUMN MOUNTED ON THE BACK SIDE. THE WIRING FOR COLUMN MOUNTED DEVICES SHALL BE RUN CONCEALED INSIDE THE PIPE COLUMN.
   b. THERMOSTAT SHALL BE VERTICAL, TEMPERATURE SENSOR SHALL BE HORIZONTAL, 6.0 FT ABOVE FLOOR. WITH HOLE SEALED AND AN INSULATION BLOCK BETWEEN DEVICE AND STEEL COLUMN.
   c. RELATIVE HUMIDITY SENSOR OR HUMIDISTAT SHALL BE 6.5 FEET ABOVE FLOOR AT THE SAME LOCATION AS THE RESPECTIVE TEMPERATURE SENSOR. CARRIER HUMIDITY SENSOR IS INTEGRAL WITH THERMOSTAT.
   d. CO2 SENSOR SHALL BE HORIZONTAL 7.0 FEET ABOVE FLOOR AT THE SAME LOCATION AS THE RESPECTIVE TEMPERATURE SENSOR.
   e. RTU–4 THERMOSTAT OR TEMPERATURE SENSOR SHALL BE VERTICALLY WALL MOUNTED 4.5 FEET ABOVE FLOOR, NOT IN THE DISCHARGE AIR PATH OF SUPPLY AIR DIFFUSERS.
   f. THE FAN SERVING THE ELECTRICAL EQUIPMENT ROOM/AREA (IF APPLICABLE) SHALL RUN WHEN THE ROOM TEMPERATURE EXCEEDS 84 DEG. F.
   g. RTU–5 THERMOSTAT OR TEMPERATURE SENSOR SHALL BE VERTICALLY WALL MOUNTED 6.0 FEET ABOVE FLOOR.
   h. THERMOSTAT AND SENSOR WIRING SHALL BE RUN INSIDE THE CONDUIT, VERTICALLY UP TO CEILING, WHERE SUBJECT TO VIEW IN UNFINISHED SPACES.
   i. THE TOILET EXHAUST FAN(S) SHALL RUN CONTINUOUSLY DURING "OCCUPIED" PERIODS AS DETERMINED BY THE LARGEST ROOF TOP UNIT, TYPICALLY RTU–3.
   j. THE EMPLOYEE ROOM EXHAUST FAN SHALL RUN ONLY WHEN THE ROOM LIGHTS ARE ON.
2. TEMPERATURE CONTROL DEVICES IN THE OFFICE SHALL BE MOUNTED VERTICALLY IN A 4 X 4 PATTERN WITH 6 INCHES BETWEEN DEVICES, APPROXIMATELY, 4.5 FT ABOVE FLOOR.
3. OUTDOOR AIR TEMPERATURE SENSOR SHALL BE INSTALLED ON NORTH WALL OF THE BUILDING, 8'–0" ABOVE THE GROUND (MINIMUM). SENSOR PROBE SHALL BE FACING DOWNWARD.
4. ALL SENSORS AND THERMOSTATS SHALL BE LABELED.
5. REMOTE DUCT SMOKE DETECTOR TEST STATIONS SHALL BE INSTALLED ADJACENT TO FIRE ALARM PANEL AND LABELED WITH CORRESPONDING ROOF TOP UNIT NUMBER.
6. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL TRADES, AND PROVIDE A FULLY OPERATIONAL AND FUNCTIONAL CONTROL SYSTEM.
7. MECHANICAL CONTRACTOR SHALL BE PRESENT AT START UP.

FLORIDA MECHANICAL CODE DUCTWORK INSULATION REQUIREMENTS

- HVAC DUCTWORK SHALL BE EXTERNALLY INSULATED, INCLUDING BUT NOT LIMITED TO, SUPPLY, RETURN, TRANSFER, EXHAUST, ETC. DUCTWORK SHALL BE EXTERNALLY INSULATED SHEET METAL (SPIRAL ROUND) CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. INSULATION SHALL BE 2.2" THICK, OWENS CORNING TYPE 75, .75 LBS./CU. FT. DENSITY WITH AN INSTALLED MINIMUM THERMAL RESISTANCE (R) VALUE OF 6.0. ALL JOINTS SHALL BE SECURELY TAPED WITH 3" WIDE GLASS FABRIC TAPE WITH FOSTER 30/35 MASTIC OR EQUAL. ALL DUCT REGISTERS, GRILLES AND DIFFUSERS SHALL HAVE A MINIMUM FLAME SPREAD RATING OF NOT OVER 25 AND A MINIMUM SMOKE DEVELOPED RATING OF NOT OVER 50. INTERNALLY LINED/INSULATED DUCTWORK IS NOT PERMITTED.
- FLEXIBLE ROUND DUCTWORK SHALL BE PRE–INSULATED, SPIRAL ROUND SPRING STEEL WITH FLAMEPROOF VINYL SHEATHING AND SHALL COMPLY WITH UL 181. FLEXIBLE DUCT TO HAVE AN INSTALLED MINIMUM THERMAL RESISTANCE (R) VALUE OF 6.0 SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 1 FLEXIBLE AIR DUCTS AND SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 304.1 OF THE FLORIDA MECHANICAL CODE ACCEPTABLE MANUFACTURER IS WIREMOLD TYPE WK OR EQUAL BY ATCO, FLEXMASTER, TECHNAFLEX, THERMAFLEX LINDAB, SEMCO AND UNITED MCGILL.

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PROJECT TYPE

DRAWINGS/SPECIFICATIONS BY:
- ☐ WALGREENS' CONSULTANT
- ■ LANDLORD'S CONSULTANT

CONSTRUCTION WORK BY: (UNLESS NOTED OTHERWISE)
- ☐ WALGREENS' CONTRACTOR
- ■ LANDLORD'S CONTRACTOR (TURNKEY CONSTRUCTION)

STORE		BUILDING	
NEW.....	■	NEW.....	■
REMODELING...	☐	EXISTING.....	☐
RELOCATION...	☐	NEW SHELL ONLY	☐
OTHER.....	☐		

NO.	DATE	DESCRIPTION

REVISIONS

CERTIFICATION AND SEAL

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA AS SIGNIFIED BY MY HAND AND SEAL.

RON. R. RENNA
FL LICENSE NO. PE56067

PROJECT NAME
STORE #13450
SWC OF FOURAKER & NORMANDY
JACKSONVILLE, FLORIDA

DRAWING TITLE
HVAC CONTROL CONCEPT OF OPERATION

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DATE:	11.30.09	WALGREENS STORE NO. 13450	DRAWING NO. M3.1
DRAWN BY:	JK	SCALE: AS NOTED	
REVIEWED BY:	RR	RELEASED TO CONSTRUCTION	FWH PROJECT NO. 0913