

2015 IECC COMPLIANCE (C403.2.16 - SITE ASSEMBLED WALK-IN COOLER/FREEZER)

- 1. AUTOMATIC DOOR CLOSERS
AUTOMATIC DOOR CLOSERS SHALL BE PROVIDED THAT FULLY CLOSE WALK-IN DOORS THAT HAVE BEEN CLOSED TO WITHIN 1 INCH (25 MM) OF FULL CLOSURE.
2. DOORWAYS
DOORWAYS SHALL BE PROVIDED WITH STRIP DOORS, CURTAINS, SPRING-HINGED DOORS OR OTHER METHOD OF MINIMIZING INFILTRATION WHEN THE DOORS ARE OPEN.
3. WALL INSULATION
WALLS SHALL BE PROVIDED WITH INSULATION HAVING A THERMAL RESISTANCE OF NOT LESS THAN R-25.

THE FLOOR OF WALK-IN FREEZERS SHALL BE PROVIDED WITH INSULATION HAVING A THERMAL RESISTANCE OF NOT LESS THAN R-28.
5. FREEZER DOORS
TRANSPARENT REACH-IN DOORS FOR AND WINDOWS IN OPAQUE WALK-IN FREEZER DOORS SHALL BE PROVIDED WITH TRIPLE-PANE GLASS HAVING THE INTERSTITIAL SPACES FILLED WITH INERT GAS OR PROVIDED WITH HEAT-REFLECTIVE TREATED GLASS.

- 6. COOLER DOORS
DOORWAYS SHALL BE PROVIDED WITH STRIP DOORS, CURTAINS, SPRING-HINGED DOORS OR OTHER METHOD OF MINIMIZING INFILTRATION WHEN THE DOORS ARE OPEN.
7. EVAPORATOR FAN MOTORS
EVAPORATOR FAN MOTORS THAT ARE LESS THAN 1 HP (0.746 KW) AND LESS THAN 480 VOLTS SHALL BE ELECTRONICALLY COMMUTATED MOTORS OR 3-PHASE MOTORS.
8. CONDENSER FAN MOTORS
CONDENSER FAN MOTORS THAT ARE LESS THAN 1 HP (0.746 KW) IN CAPACITY SHALL BE OF THE ELECTRONICALLY COMMUTATED OR PERMANENT SPLIT CAPACITOR-TYPE OR SHALL BE 3-PHASE MOTORS.

9. ANTISWEAT DOOR HEATERS
ANTISWEAT HEATERS THAT ARE NOT PROVIDED WITH ANTI-SWEAT HEATER CONTROLS SHALL HAVE A TOTAL DOOR RAIL, GLASS AND FRAME HEATER POWER DRAW NOT GREATER THAN 7.1 W/F2 (76 W/M2) OF DOOR OPENING FOR WALK-IN FREEZERS, AND NOT GREATER THAN 3.0 W/F2 (32 W/M2) OF DOOR OPENING FOR WALK-IN COOLERS.

10. ANTISWEAT DOOR HEATER CONTROLS
ANTISWEAT HEATER CONTROLS SHALL BE CAPABLE OF REDUCING THE ENERGY USE OF THE ANTISWEAT HEATER AS A FUNCTION OF THE RELATIVE HUMIDITY IN THE AIR OUTSIDE THE DOOR OR TO THE CONDENSATION ON THE INNER GLASS PANE.
11. LIGHT SOURCES
LIGHT SOURCES SHALL HAVE AN EFFICACY OF NOT LESS THAN 40 LUMENS PER WATT, INCLUDING ANY BALLAST LOSSES, OR SHALL BE PROVIDED WITH A DEVICE THAT AUTOMATICALLY TURNS OFF THE LIGHTS WITHIN 15 MINUTES OF WHEN THE WALK-IN COOLER OR WALK-IN FREEZER WAS LAST OCCUPIED.

REFRIGERATION SPECIFICATIONS

- 1. SCOPE
1.1 HEREAFTER IN THIS SPECIFICATION, THE WORD "MECHANICAL CONTRACTOR" SHALL REFER TO THE INSTALLING MECHANICAL OR REFRIGERATION CONTRACTOR AND "OWNER" SHALL REFER TO 7-ELEVEN.
2. CODE REQUIREMENTS
2.1 ALL PROPOSALS SHALL INCLUDE, AND WORK PERFORMED SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES, WHICH SHALL BE DELINEATED, AND ALL MODIFICATIONS REQUIRED BY THE INSPECTING AUTHORITY SHALL BE MADE BY THE MECHANICAL CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
3. GUARANTEE
3.1 MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND THE COMPLETE SYSTEM OPERATION WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL THAT THE MECHANICAL CONTRACTOR PROVIDED FOR INSTALLATION, FOR A PERIOD OF 90 DAYS AFTER ACCEPTANCE BY THE OWNER.

WALK IN COOLER REFRIGERATION SYSTEM INSTALLATION

SPECIFICATION INTRODUCTION:
THE CONTRACTING FOR INSTALLATIONS OF WALK-IN REFRIGERATION EQUIPMENT WILL BE ACCOMPLISHED IN THE FIELD AT THE ZONE LEVEL. THESE SPECIFICATIONS ARE TO AID IN PREPARATION OF NATIONAL STANDARD CONTRACT DOCUMENTS.

- 1. SCOPE
1.1 HEREAFTER IN THIS SPECIFICATION, THE WORD "MECHANICAL CONTRACTOR" SHALL REFER TO THE INSTALLING MECHANICAL OR REFRIGERATION CONTRACTOR AND "OWNER" SHALL REFER TO 7-ELEVEN.
2. CODE REQUIREMENTS AND PERMITS
2.1 ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES, AND ALL MODIFICATIONS REQUIRED BY THE INSPECTION AUTHORITY SHALL BE MADE BY THE MECHANICAL CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
3. GUARANTEE
3.1 MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND THE COMPLETE SYSTEM OPERATION WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL THAT THE MECHANICAL CONTRACTOR PROVIDED FOR INSTALLATION, FOR A PERIOD OF 90 DAYS AFTER ACCEPTANCE BY THE OWNER.

- 6. INSTALLATION REQUIREMENTS
6.1 REFRIGERANT PIPING
6.1.1 ALL SUCTION LINE PIPING SHALL BE SEALED REFRIGERANT GRADE, TYPE L, HARD DRAWN.
6.1.2 ALL HORIZONTAL TUBING RUNS SHALL BE SLOPED TOWARD THE COMPRESSOR, AND/OR "P" TRAP 1 INCH PER 20 FEET.
6.1.3 ONLY SILVER BASE SOLDER (15% SILVER) SHALL BE USED FOR THIS INSTALLATION.
6.2 REFRIGERANT LEAK TESTING
6.2.1 AFTER ALL REFRIGERANT TUBING IS CONNECTED, THE ENTIRE SYSTEM, INCLUDING THE CONDENSING UNIT, SHALL BE PRESSURIZED TO 150 PSIG WITH A MIXTURE OF APPROPRIATE REFRIGERANT AND DRY NITROGEN.
6.3 EVACUATION
6.3.1 THE COMPLETE SYSTEM SHALL BE EVACUATED WITH A VACUUM PUMP.
6.3.2 THE COMPLETE SYSTEM, TO INCLUDE THE CONDENSING UNIT, SHALL BE EVACUATED A MINIMUM OF THREE TIMES.
6.4 SUCTION LINE INSULATION
6.4.1 THE MAIN SUCTION LINE INSIDE THE COOLER (VAULT) TO INCLUDE THE "P" TRAP, THE VERTICAL SUCTION RISER, ALL ABOVE ROOF SUCTION PIPING SHALL BE INSULATED WITH 1/2" WALL ARM&AFLUX OR ITS EQUIVALENT.
6.5 CONDENSATE DRAIN LINES
6.5.1 CONDENSATE DRAIN LINE MATERIAL SHALL BE 1" O.D. HARD DRAWN COPPER TUBING.
6.5.2 THE LINES SHALL BE CAPABLE OF BEING OPENED AS CLOSE TO THE EVAPORATOR DRAIN AS POSSIBLE TO ALLOW EFFECTIVE CLEANING.
6.5.3 THE DRAIN LINE SHALL BE TRAPPED ON A VERTICAL SLOPE PRIOR TO RECEIVING THE RECEIVING FLOOR DRAIN OR PIT.
6.5.4 THE DRAIN LINE SHALL HAVE A DEFINITE SLOPE AWAY FROM THE EVAPORATOR DRAIN PIT.
6.6 SYSTEM SET-UP
6.6.1 THE OIL LEVEL IN THE COMPRESSOR SIGHT GLASS SHALL BE BETWEEN 1/3 AND 1/2 FULL AT ALL TIMES.
6.6.2 THE PROPER AMOUNT OF REFRIGERANT SHALL BE CHARGED INTO THE SYSTEM WITH THE COMPRESSOR OPERATING AT THE PROPER HIGH PRESSURE.
6.6.3 OIL VISCOSITY: ISO-32 OIL SHALL BE USED IN THE MEDIUM TEMP SYSTEMS AND MOBIL EAL ARCTIC 22 OIL SHALL BE USED IN THE LOW TEMP SYSTEMS.
6.6.4 THE THROTTLING VALVE SUPERHEAT VALVE SUPERHEAT IS CONTROLLED BY THE BEACON MICRO-PROCESSOR BOARD AND FACTORY SET AT 8 DEG.
6.7 PENETRATIONS
6.7.1 ALL OPENINGS THROUGH THE WALK-IN PANELS REQUIRED FOR HANGERS, CONDENSATE DRAIN LINES, STRAPPING AND REFRIGERANT PIPING SHALL BE SEALED EXTERIOR AND INTERIOR BY THE MECHANICAL CONTRACTOR TO PREVENT MOISTURE FROM ENTERING THE INSULATION, AND TO MAINTAIN THE WALK-IN VAPOR BARRIER.
6.7.2 THE MECHANICAL CONTRACTOR SHALL SEAL OFF ALL PASS-THROUGH OPENINGS REQUIRED FOR REFRIGERANT TUBING IN ACCORDANCE WITH REQUIREMENTS STATED ON MECHANICAL PLAN.

SPECIFICATIONS: MISCELLANEOUS REFRIGERATED EQUIPMENT

- 1. SCOPE
1.1 HEREAFTER IN THIS SPECIFICATION, THE WORD "MECHANICAL CONTRACTOR" SHALL REFER TO THE INSTALLING MECHANICAL OR REFRIGERATION CONTRACTOR AND "OWNER" SHALL REFER TO 7-ELEVEN.
2. CODE REQUIREMENTS
2.1 ALL PROPOSALS SHALL INCLUDE, AND WORK PERFORMED SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE LOCAL LAWS, REGULATIONS, ORDINANCES, STATUTES AND CODES, WHICH SHALL BE DELINEATED, AND ALL MODIFICATIONS REQUIRED BY THE INSPECTING AUTHORITY SHALL BE MADE BY THE MECHANICAL CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.
3. GUARANTEE
3.1 MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND THE COMPLETE SYSTEM OPERATION WILL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL THAT THE MECHANICAL CONTRACTOR PROVIDED FOR INSTALLATION, FOR A PERIOD OF 90 DAYS AFTER ACCEPTANCE BY THE OWNER.
3.2 MECHANICAL CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION TO THE EQUIPMENT MANUFACTURER:
3.2.1 MODEL NUMBER OF THE UNIT
3.2.2 SERIAL NUMBER OF THE UNIT
3.2.3 DATE OF INSTALLATION
3.2.4 DETAILED ACCOUNT OF THE PROBLEM, DIAGNOSIS, AND REPAIR WORK REQUIRED
3.2.5 PARTS AND SUPPLIES REPLACED
3.2.6 STORE NUMBER AND ADDRESS
3.3 MECHANICAL CONTRACTOR SHALL FURNISH TO THE OWNER'S REPRESENTATIVE ALL CERTIFICATES OF FINAL INSPECTION AND APPROVAL FROM INSPECTION AUTHORITIES HAVING JURISDICTION.
4. INSTALLATION REQUIREMENTS
4.1 GENERAL
4.1.1 THE EQUIPMENT FROM VARIOUS MANUFACTURERS IS CONFIGURED SIMILARLY WITH MINOR DIFFERENCES DUE TO INDIVIDUAL MANUFACTURER'S DESIGN.
4.2 RETAIL REFRIGERATION EQUIPMENT
4.2.1 INSTALLATION INSTRUCTIONS
PARTS REQUIRED:
1. R484A REFRIGERANT FOR ALL REMOTE CONDENSING UNITS EXCEPT ICE MAKER AND SLURPEE (R394A) UP TO 15LBS 4/2 PER CONDENSER
2. WALL MOUNTED ELECTRICAL JUNCTION BOX WITH STRAIN RELIEF
3. 50 FEET (MAX) OF ELECTRICAL CONDUIT WITH MINIMUM AWG 22 STRAND 7X30 WIRE.
4. MOUNTING HARDWARE FOR JUNCTION BOX BRACKETS, CLAMPS AND REMOTE CONDENSER.
CONTENTS OF KIT:
1. REMOTE CONDENSER
2. FLEXIBLE LINE SET
3. QUICK DISCONNECT FITTINGS
4. 50 FEET OF 3/8" INSULATED LINE SET
5. 50 FEET OF 5/8" INSULATED LINE SET
6. COPPER ELBOW FITTINGS
7. MOUNTING STRUT DOWEL CLAMPS
8. JUMPER FOR ELECTRICAL CONNECTION
INSTALLATION INSTRUCTIONS:
1. UNPACK CONDENSER
2. CONDENSER INSTALLATION
3. REFRIGERATION LINE INSTALLATION
4. ELECTRICAL CONNECTIONS
5. FBD UNIT INSTALLATION
6. REFRIGERANT CHARGING
7. UNIT START UP
INSTALLATION:
1. CAREFULLY UNPACK THE CONDENSING UNIT.
2. CONDENSER INSTALLATION: INSTALL THE REMOTE CONDENSER ACCORDING TO THE DOCUMENT "INSTALL AND MAINTENANCE DATA" PROVIDED WITH THE CONDENSER.
4.2.2 ICE MAKER (PIPED TO THE HOSHIZAKI REMOTE CONDENSING UNIT, PRECHARGED REFRIGERANT LINE SET FURNISHED BY THE ICE MAKER MANUFACTURER.)
4.2.3 SANDWICH CASE (PIPED TO THE HEATCRAFT REMOTE CONDENSING UNIT, PRECHARGED REFRIGERANT LINE SET FURNISHED BY THE SANDWICH CASE MANUFACTURER.)
4.2.4 SLURPEE (PIPED TO THE FBD DUAL REMOTE CONDENSING UNIT, PRECHARGED REFRIGERANT LINE SET FURNISHED BY THE SLURPEE MANUFACTURER.)
4.2.5 FROZEN LEMONADE (PIPED TO FBD SINGLE REMOTE CONDENSING UNIT, PRECHARGED REFRIGERANT LINE SET FURNISHED BY THE FROZEN LEMONADE MANUFACTURER.)
4.3 CONDENSATE DRAIN
4.3.1 NORMALLY, THE CONDENSATE DRAIN CONNECTION INCLUDED WITH THE UNIT, WILL BE STUBBED OUT AT THE BOTTOM OF THE CABINET.
4.4 UNIT START UP AND CHECKOUT
4.4.1 MECHANICAL CONTRACTOR SHALL FOLLOW THE SPECIFIC UNIT INSTALLATION PROCEDURES WHICH ARE PACKAGED WITH EACH PIECE OF EQUIPMENT WHEN DELIVERED TO THE STORE.
5. MECHANICAL CONTRACTOR RESPONSIBILITIES
5.1 REMOVE ALL CRATING FROM PREMISES.
5.2 CHECK EACH PIECE OF REFRIGERATION EQUIPMENT FOR DAMAGES. NOTIFY THE OWNER'S DIVISION OFFICE IMMEDIATELY. MAKE REPAIRS ONLY WHEN AUTHORIZED TO DO SO.
5.3 OBTAIN, PAY FOR AND FURNISH ALL REFRIGERATION PERMITS REQUIRED BY LOCAL OR STATE ORDINANCES OR CODES.
5.4 COMPLY WITH ALL LOCAL AND STATE CODES; IN JURISDICTION WHENEVER THE SPECIFICATIONS DO NOT MEET CODES, THE CODES SHALL TAKE PREFERENCE. NOTIFY OWNER'S DIVISION CONSTRUCTION OFFICE REGARDING REQUIRED MODIFICATIONS.
5.5 NO EXTRAS SHALL BE ALLOWED DUE TO CONDITIONS WITH WHICH THE MECHANICAL CONTRACTOR SHOULD HAVE BEEN FAMILIAR.
6. ELECTRICAL
6.1 ALL PROVISIONS FOR WIRING, EXCEPT LOW VOLTAGE CONNECTIONS, SHALL BE BY THE ELECTRICAL CONTRACTOR.
6.2 ALL ELECTRICAL POWER SUPPLY WIRING SHALL BE BY ELECTRICAL CONTRACTOR.
6.3 ALL LINE VOLTAGE CONTROL WIRING FROM THE RETAIL REFRIGERATION EQUIPMENT TO THE CONDENSER UNIT(S) SHALL BE BY THE ELECTRICAL CONTRACTOR.

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Client and project information including: 1925 Prospect Ave. Orlando, FL 32814. Client name: BLACKFIN PARTNERS INVESTMENTS, INC. Project name: 7-ELEVEN #1795 - OCALA, FL. Project location: 9000 BLOCK OF SE MARICAMP ROAD OCALA, FL 34470. Sheet title: REFRIGERATION SPECIFICATIONS. License information for Jose J. Diaz-Velazquez, State of Florida Professional Engineer, License No. 75474. Project details: PROJECT NO. 2200955, DATE 12/17/2020, DRAWN FD, CHECKED JD.