

ROOF TOP UNIT SCHEDULE

MARK	NUMBER	MANUFACTURER	MODEL NO.	NOMINAL TONS	NET TOTAL COOLING KBTU/HR	NET SENSIBLE COOLING KBTU/HR	TOTAL CFM	ENTERING DB/WB (°F)	CONDITIONS AMBIENT (°F)	HEAT INPUT (KBTU/HR)	HEAT OUTPUT (KBTU/HR)	THERMAL EFFICIENCY	BLOWER NOMINAL H.P.	OUTSIDE AIR (CFM) MIN/MAX	POWER SUPPLY (VOLTS-PHASE)	MCA	MOCP	FILTERS	EXTERNAL S.P. (° OF W.C.)	APPROX WEIGHT	EER/IEER/SEER	ECONOMIZER WITH FAULT DETECTION DIAGNOSTICS	BAROMETRIC RELIEF DAMPERS	NEW ROOF CURB	BOTTOM POWER ENTRY KIT	CIRCUIT BREAKERS FACTORY INSTALLED	LENNOX SUPPLY AND RETURN DROPPED PACKAGE	SMOKE DETECTORS SA FACTORY INSTALLED **	SERVICE OUTLET (GFCl TYPE, FACTORY MOUNTED FIELD WIRED BY ELC)	COMMENTS
RTU	T3	LENNOX	LGH150HAM	12.5 Ton	139.1	120.1	5000	80.5/64.9	94	84.5/130	67.5/104	80%	5 / 3.88	500/865	480-3	33	40	MERV 13	0.80	1449	10.8/12.2/---	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	ADD LENNOX BACnet MODULE & CORROSION PROTECTION
RTU	T4	LENNOX	LGH072HAM	6 Ton	71.5	61.6	2400	80.5/64.9	94	65	52	80%	2 / 1.17	365/365	480-3	16	20	MERV 13	0.80	921	12.0/13.5/---	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	ADD LENNOX BACnet MODULE & CORROSION PROTECTION

EXISTING ROOF TOP UNIT SCHEDULE

MARK	NUMBER	MANUFACTURER	MODEL NO.	NOMINAL TONS	TOTAL COOLING	SENSIBLE COOLING	TOTAL CFM	ENTERING DB/WB	CONDITIONS AMBIENT	HEAT INPUT (BTU/H)	HEAT OUTPUT (BTU/H)	ELEC HEATER K.W.	OUTSIDE AIR (CFM) MIN/MAX	POWER SUPPLY (VOLTS-PHASE)	MCA	MOCP	FILTERS	EXTERNAL S.P. (° OF W.C.)	APPROX WEIGHT	EER/PLV/SEER	COMMENTS
RTU	T1	LENNOX	LCA180HM1G	15 Ton	EXISTING	EXISTING	6000	---	93	---	---	F.V.	600/1040	460-3	43.0	50	2"	EXISTING	EXISTING	EXISTING	EXISTING UNIT TO REMAIN
RTU	T2	LENNOX	LGA180HL1G	15 Ton	EXISTING	EXISTING	6000	---	93	169,000	135,000	---	600/1085	460-3	43.0	50	2"	EXISTING	EXISTING	EXISTING	EXISTING UNIT TO REMAIN

FAN SCHEDULE

MARK	NUMBER	MANUFACTURER	MODEL	CFM	EXTERNAL S.P. (° OF W.C.)	MOTOR HP / BHP	VOLTS/PH/Hz	ADJUSTABLE FULLY	DISCONNECT	DRIVE PACKAGE	BACKDRAFT DAMPER	SEISMIC ROOF CURB	BIRDSCREEN	WEIGHT
EF	T1	COOK	70C2B	75	0.25	1/8 HP / 0.29 BHP	115/1/60	Yes	STD-PREWIRED	B	Yes	Yes	Yes	44 + CURB

APPROVED ALTERNATES: GREENHECK, PENN. TWIN CITY
NOTE: MINIMUM MOTOR EFFICIENCY SHALL BE 70% PER 2016 IEC 140.4004.

Babies R Us Lakeland, FL - Ventilation per 2017 FMC Table 403.3.1.1

Room	Use	Area (sf)	Calc. PPL	Total People	Area CFM	PPL Factor	MIN. O.A.	MAX. O.A.
Sales	Retail/Sales	12647	189.705	190	1517.94	1425	1517.94	2942.64
Admin's Rm	Office/Office	135	0.679	1	8.1	5	8.1	13.1
Hall	Public/Confidor	54	-	-	3.24	-	3.24	3.24
Serv. Storage	Retail/Storage	352	-	-	42.24	-	42.24	42.24
Restrooms	N/A	79	-	-	-	-	346.2	346.2
Rear Storage	Retail/Storage	2885	-	-	346.2	-	346.2	346.2
		Required		1917.42		3347.42		
		Provided		2065		3355		

HEATING & COOLING SET POINTS

UNLESS OTHERWISE DIRECTED BY TOYS "R" US, THE FOLLOWING SET POINTS SHALL APPLY TO ALL SYSTEMS:
OCCUPIED COOL - 78° UNOCCUPIED COOL - 80°
OCCUPIED HEAT - 68° UNOCCUPIED HEAT - 58°

NOTE:
THERMOSTATS FOR HEATING ONLY SHALL HAVE SET POINT RANGE OF 58°F TO 75°F FOR HEATING & COOLING SHALL HAVE SET POINT RANGE OF 58°F TO 85°F (ADJ) TO PROVIDE A RANGE OF 10°F BETWEEN FULL HEATING AND FULL COOLING. ALL HEATING & COOLING THERMOSTATS SHALL BE DESIGNED TO TERMINATE ALL HEATING @ 68°F & ALL COOLING @ 78°F. HVAC EQUIPMENT SHALL COMPLY WITH GOVERNING CODE.

HURRICANE ROOF CURB SPECIFICATIONS (REQUIRED FOR ALL RTU'S)

TOYS "R" US SHALL PROVIDE AND MECHANICAL/HVAC CONTRACTOR TO INSTALL SPECIAL RTU/CURB THE DOWN CLIPS AS PROVIDED BY CURBS PLUS, INC. EQUAL TO CURBS PLUS MODEL L SERIES 090989 FOR MATCHING LENNOX RTU. CLIPS SET ON TOP RAIL OF ROOF CURB AND IS ATTACHED ON THE INSIDE PRIOR TO INSTALLATION OF UNIT. UNIT BASE RAIL IS THEN ATTACHED TO HOLD DOWN CLIP ON OUTSIDE. REFER TO MANUFACTURER INSTALLATION INSTRUCTIONS.

RTU SPECIAL NOTES

ALL RTUS EQUIPPED WITH ECONOMIZERS SHALL BE PROVIDED WITH BAROMETRIC RELIEF DAMPERS. THE HIGH LIMIT SHUT OFF CONTROLS SHALL BE FIXED ENTHALPY - FIXED DRY BULB PER LOCAL ENERGY CODE. ECONOMIZERS SHALL HAVE FUNCTIONALITY AND CERTIFIED FAULT DIAGNOSTIC DETECTION PER LOCAL CODE. SEE SPECIFICATIONS FOR MORE INFORMATION.

RTU-T1, T2, T3 SHALL BE CONFIGURED FOR DEMAND CONTROL VENTILATION. THE BASE OUTDOOR CO2 CONCENTRATION WHERE THE CONTROL BEGINS TO INCREASE THE VENTILATION RATE SHALL BE 500PPM. THE OUTDOOR AIR DAMPER SHALL BE SET TO MAXIMUM POSITION WITH RISE IN CO2 TO 1000 PPM. THE SENSOR SHALL BE INSTALLED BETWEEN 3 AND 4 FT AFF O.C. OVER LOCAL CODE. THE SENSOR SHALL BE ACCURATE WITHIN ± 75PPM, FACTORY CALIBRATED AND CERTIFIED, AND SHALL PROVIDE THE HIGHER VENTILATION RATE IN THE EVENT OF SENSOR FAILURE PER LOCAL CODE. THE SENSOR SHALL CONTINUOUSLY DISPLAY THE CO2 READING AND SHALL BE RECORDED BY THE EMS SYSTEM. LENNOX SHALL PROVIDE THE SENSOR CONTROLS AND NOVAR INC. WILL FURNISH THE SPACE CO2 SENSORS AS SHOWN ON THE DRAWING. DEVELOPER/CG SHALL VERIFY THE SENSOR IS INSTALLED. CONTRACTOR REFER TO DRAWING EMS1 FOR MORE DETAILED INFORMATION ABOUT DISPLAY AND CONTROL.

DEMAND CONTROL VENTILATION (CO2) SHALL BE UTILIZED TO PROVIDE A HIGHER VENTILATION RATE WHEN THE SPACE IS OCCUPIED AS DETERMINED BY THE CO2 SENSOR. THE HIGHER RATE IS BASED ON LOCAL CODE. THE HIGHER RATE SHALL BE PER THE VENTILATION TABLE ON THIS SHEET. REFER TO DRAWING EMS1 FOR ADDITIONAL INFORMATION.

EACH RTU SHALL BE PROVIDED WITH A TEMPERATURE SENSOR. THESE SENSORS SHALL BE SHIPPED LOOSE WITHIN THE UNIT TO BE MOUNTED BY THE E.C. PER DRAWING E-001. THE LENNOX DATA CENTER SHALL BE PROVIDED WITH A TEMPERATURE SENSOR. GAS FIRED FURNACES HAVE INTERLOCKED WITH THE UNIT (NOT A CONTINUOUS RUNNING FURNACE) AND POWER VENTING.

RTU-T4 SHALL HAVE THERMOSTATIC CONTROL INTERLOCKED WITH THE LOAD LOCK DOORS. AFTER THE DOORS ARE OPEN FOR 5 MINUTES, THE COOLING SET POINT SHALL BE LOWERED TO 90°F, AND THE HEATING SET POINT SHALL BE LOWERED TO 55°F UNTIL THE DOOR IS CLOSED.

** DEVELOPER/CG SHALL PROVIDE FACTORY INSTALLED SMOKE DETECTORS IN THE SUPPLY AIR DUCTS IN RTUS T3 AND T4. WIRE TO SHUT DOWN THE EVAPORATOR BLOWER UPON ACTIVATION. SMOKE DETECTORS SHALL WIRE SMOKE DETECTORS TO THE FIRE ALARM SYSTEM (SUPERVISORY SIGNAL) REFER TO BID SPECIFICATIONS BELOW.

NO TO BIDDERS:
SMOKE DETECTORS TO SHUT DOWN RTU.
LENNOX ROOFTOP UNITS SHALL BE NORMALLY PROVIDED WITH SMOKE DETECTORS INSTALLED AND WIRED IN THE SUPPLY AIR DUCTS. UNITS 2000 CFM AND GREATER SHALL COME FACTORY WIRED TO SHUT DOWN RTU. POWER FOR DETECTORS SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR.
DETECTORS IN AN UNITS WITH A SMOKE DETECTOR SHALL SHUT DOWN ALL UNITS WITH SMOKE DETECTORS (GLOBAL SHUT DOWN).
DURING BIDDING, THE BIDDER SHALL BE RESPONSIBLE TO DETERMINE IF THE LOCAL CODES AND/OR THE LOCAL BUILDING/FIRE DEPARTMENT OFFICIALS REQUIRE SMOKE DETECTORS TO BE INSTALLED IN THE DUCTWORK IN LIEU OF BEING FACTORY INSTALLED WITHIN THE LENNOX UNIT.
WHERE APPLICABLE, THE HAC SHALL BE RESPONSIBLE TO INCLUDE IN HIS BASE BID WORK, THE COST TO REMOVE, RELOCATE, AND REWIRE SMOKE DETECTORS IN LOCATIONS AND ARRANGEMENTS ACCEPTABLE TO AND AS REQUIRED BY LOCAL CODES AND OFFICIALS. IT IS THE RESPONSIBILITY OF THE BIDDER TO BE FAMILIAR WITH THE LOCAL CODES AND THEREFORE, THE CONTRACTOR'S FAILURE TO BE SO INFORMED SHALL NOT CONSTITUTE JUSTIFICATION FOR AN ADDITIONAL PAYMENT FOR RELOCATING AND REWIRING SMOKE DETECTORS.
THE SMOKE DETECTORS SHALL BE PROVIDED WITH RTU INCLUDING THE SINGLE POINT CONNECTION OPTION.
** DEVELOPER/CG SHALL VERIFY SMOKE DETECTORS ARE INSTALLED IN THE SUPPLY AIR DUCTS IN ALL EXISTING RTUS TO REMAIN. WIRE TO SHUT DOWN THE EVAPORATOR BLOWER UPON ACTIVATION. HAC SHALL WIRE SMOKE DETECTORS TO THE FIRE ALARM SYSTEM (SUPERVISORY SIGNAL). DEVELOPER/CG SHALL REFER TO ABOVE INFORMATION TO ENSURE EXISTING UNITS ARE IN COMPLIANCE AND OPERATE AS SPECIFIED.

REVISIONS

No	Date	Description
1	01/22/19	90% OWNER REVIEW
2	01/28/19	ISSUED FOR PERMIT/BD

NO SUBSTITUTIONS SHALL BE ALLOWED UNLESS OTHERWISE NOTED (REFER TO SPECIFICATIONS)

DESIGNED FOR: FLORIDA BUILDING CODE, 6TH EDITION (2017).



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TEL: (314) 821-1100

BID DATE: 01/29/19 PROJECT NO: 918219
DRAWN BY: JLS CHECKED BY: JEP
PROTOTYPED



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GLOBAL RESOURCE CENTER
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Location
LAKELAND, FLORIDA
3770 US HIGHWAY 98 NORTH 33809

Drawing Title
MECHANICAL SCHEDULES

Scale AS NOTED Date 1/29/19

Sheet No. **M301**

MECHANICAL SYMBOLS AND ABBREVIATIONS LEGEND

A.F.F. ABOVE FINISHED FLOOR	GAS PIPING
A.H.U. AIR HANDLING UNIT	UNION
APPROX. APPROXIMATE	DIRT LEG
B.L.D.G. BUILDING	DAMP
CFM CUBIC FEET PER MINUTE	MOTOR
COL. COLUMN	SUPPLY AIR REGISTER
CON. CONDENSING UNIT	RETURN GRILLE
DIA. Ø DIAMETER	EXHAUST GRILLE
DN. DOWN	THERMOSTAT
DOM. DOMESTIC	FLEXIBLE DUCT CONNECTION
DWG. DRAWING	RETURN, OR OUTSIDE AIR DUCT (VERTICAL DUCT RUN)
EER. ENERGY EFFICIENCY RATIO	EXHAUST DUCT (VERTICAL DUCT RUN)
E.F. EXHAUST FAN	DISCHARGE OR SUPPLY AIR DUCT (VERTICAL DUCT RUN)
E.L.C. ELECTRICAL CONTRACTOR	DIFFUSER DESIGNATION
EMS. ENERGY MANAGEMENT SYSTEM EQUIPMENT	KEYED NOTES ON DRAWING
EXH. EXHAUST	REVISIONS
FIN. FL. FINISHED FLOOR	POINT OF CONNECTION
FURN. FURNISHED	
G.C.C. GENERAL CONSTRUCTION CONTRACTOR	
H.A.C. HEATING AND AIR COND. CONTRACTOR	
H.P. HORSE POWER	
H.V.A.C. HEATING, VENTILATING, AIR COND. INCHES)	
IN. INCHES)	
INT. INTERCONNECTED	
K.W. KILOWATT(S)	
MAN. MANUFACTURER	
MIN. MINIMUM	
N.O.C. NOT IN CONTACT	
N.T.S. NOT TO SCALE	
O.A. OUTSIDE AIR	
P.C. PLUMBING CONTRACTOR	
P.L.S. PLASTER	
R.A. RETURN AIR	
REC'D. RECEIVED	
R.F. RETURN AIR QUANTITY (CFM)	
S.F. SQUARE FEET	
S.P. STATIC PRESSURE	
S.P. SPLIT	
S.P. SPLIT	
T-5. THERMOSTAT	
T.F. TRANSFER FAN	
TYP. TYPICAL	
UN. UNIT	
W. WITH	
W/O. WITHOUT	
W.T. WATT(S)	
W.V. VARIABLE AIR VOLUME	
W.C. WATER COLUMN	
Ø. DIAMETER	
° F. DEGREES FAHRENHEIT	

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RTU-T4 SUPPLY & RETURN AIR DUCT AND GRILLE SPECIFICATIONS

PROVIDE BY DEVELOPER/CG, INSTALLED BY HAC.
1. SUPPLY DIFFUSER BOX, RETURN GRILLE AND SUPPLY AND RETURN AIR DUCTS AS MANUFACTURED FOR BABIES "R" US BY LENNOX INC APPROVED SUPPLIER. CONTACT INFORMATION:
LENNOX, INC. REPRESENTATIVE
KURT SPAGNUOLO
PHONE: (508) 981-4181
EMAIL: KURT.SPAGNUOLO@LENNOXIND.COM

2. DUCTS AND TRANSITIONS FOR DIFFUSER BOXES SHALL BE OF SIZES AS RECOMMENDED BY MANUFACTURER FOR CFM AND RTU MODEL LISTED. SUPPLY DIFFUSER BOXES SHALL BE ACCORDING TO THIS SCHEDULE BELOW.
3. THE PLENUM DIFFUSER SHALL BE A 4-WAY DISCHARGE FOR ALL REFERENCED RTUS.
4. SEE OWNER'S CONSTRUCTION REPRESENTATIVE FOR SELECTED VENDOR.
5. ENTIRE PLENUM DIFFUSER SYSTEM SHALL BE FACTORY PAINTED WHITE.

SUPPLY DIFFUSER BOX SCHEDULE

CORRESPONDING RTU	MARK	MANUFACTURER	MODEL	CFM	EXTERNAL S.P. (° OF W.C.)	WEIGHT (LBS)	DUCT (LBS)
RTU-T4	D4	CURBS-PLUS	DLPD 1806-5/6	2000	0.33 MAX	67	100 MAX

DIFFUSER & GRILLE SCHEDULE

MARK	APPLICATION	MANUFACTURER / MODEL	MATL.	FINISH	ACCESSORIES VCP	REMARKS
1	CEILING	TITUS / TDC	STEEL	BWE	X	LAY IN T-BAR, 18"x18" FACE, 24"x24" MODULE
2	SIDEWALL	TITUS / CT-900	STEEL	BWE	X X	WALL MOUNTED, 48" LONG, 6" FACE WITH 1/8" THICK BARS, 2" DEFLECTION & 1/2" SPACING. PROVIDE WITH PLENUM SUPPLY BOX. VERIFY BORDER WITH OWNER.
3	DUCT MOUNTED	TITUS / DL	ALUMINUM	BWE	X X	DUCT MOUNTED WITH OPPOSED IN-AIDE DAMPERS. SEE PLAN FOR SIZE.
4	CEILING	TITUS / TDC	ALUMINUM	BWE	X	SURFACE MOUNTED, 24"x24" W/DAMPERS & PLASTER FRAME
5	CEILING	TITUS / 50F	ALUMINUM	BWE	X	SURFACE MOUNTED, 12"x12"

FINISH BAKED OFF-WHITE ENAMEL (BWE)
ACCESSORIES: V=VOLUME CONTROL, PC=PATTERN CONTROL

S= SUPPLY AIR
R= RETURN AIR
T= TRANSFER AIR
(SYSTEM TAG LISTED ON PLANS)

APPROVED ALTERNATES: PRICE, NAILOR, TUTTLE & BAILEY