1	2	3	4	5	6	7	8	9	10	11	12	13

MECHANICAL LEGEND

SINGLE LINE	DESCRIPTION	DOUBLE LINE
	90° ELBOW DOWN	
	90° ELBOW UP	
	ROUND RADIUS ELBOW	
	90° STRAIGHT TEE	
	90° CONICAL TEE	
	45° BRANCH	
	45° CONICAL TEE	
	SIZE OR SHAPE TRANSITION	
	ROUND FLEXIBLE DUCT	
	90° ELBOW DOWN	
	90° ELBOW UP	
	RECTANGULAR RADIUS ELBOW	
	RECTANGULAR ELBOW WITH TURNING VANES	
	BRANCH TAKE-OFF WITH 45° TAP	
	LINED DUCTWORK (UNLESS NOTED OTHERWISE)	
	SIDEWALL SUPPLY GRILLE OR REGISTER WITH AIR EXTRACTOR	
	SUPPLY DUCT RISER	
	RETURN, EXHAUST OR OUTSIDE AIR DUCT RISER	
	DOOR GRILLE	
	MANUAL BALANCING DAMPER	
MD	MOTORIZED DAMPER	MD
FD	FIRE DAMPER	FD
FSD	COMBINATION FIRE AND SMOKE DAMPER WITH SMOKE DETECTOR	FSD
SD	SMOKE DAMPER (AUTOMATIC) WITH SMOKE DETECTOR	SD
S	DUCT MOUNTED SMOKE DETECTOR	S
	RETURN AIR DUCT / CEILING RETURN AIR GRILLE OR REGISTER	AND/OR
	SUPPLY AIR DUCT / SUPPLY DIFFUSER LINEAR DIFFUSER	AND/OR
	EXHAUST AIR DUCT / CEILING MOUNTED EXHAUST FAN	AND/OR
	CANVAS CONNECTOR WITH VIBRATION	
	CONNECT TO EXISTING	
	REMOVE TO THIS POINT	
	FLEXIBLE CONNECTION	
T	THERMOSTAT	T
S	SENSOR	S
	UNIT HEATER	
	EXHAUST FAN	
	CONDENSING UNIT	
	FAN COIL UNIT / AIR HANDLER UNIT	
	ROOFTOP AIR CONDITIONING UNIT	
O.A.	OUTSIDE AIR INTAKE	O.A.
	TRANSFER GRILLE	
	DUCT SLEEVE	

ALL SYMBOLS ON THIS LIST ARE NOT NECESSARILY USED ON THIS PROJECT.

ROOFTOP UNIT SCHEDULE

SYMBOL	MANUFACTURER	MODEL	AIR FLOW (CFM)	O.A. FLOW (CFM)	AMB. O.A.T. (°F)	EXT. S.P. (IN W.C.)	COOLING EAT (°F DB/WB)	COOLING TOTAL (KBTU/HR)	COOLING SENSIBLE (KBTU/HR)	ELECTRIC HEAT (KW)	ELECTRICAL VOLTS/Ø/HZ.	ELECTRICAL MCA (AMPS)	ELECTRICAL MOCA (AMPS)	SEER	APPROX. WEIGHT (LBS.)
HP-1 (EX)	TRANE	WSC048A4	1600	75	95	-	80/67	50.8	38.0	-	460/3/60	12.1	15	10.7	474

GRILLE, REGISTER AND DIFFUSER SCHEDULE

SYMBOL	MANUFACTURER	MODEL	SERVICE	MODULE (L" X W")	FACE SIZE (L" X W")	FRAME TYPE	FINISH	MOUNTING	N.C.	NOTES
A	TITUS	PAS	SUPPLY DIFFUSER	24" X 24"	24" X 24"	SEE PLANS	OFF WHITE	CEILING	<35	A, B, C
B	TITUS	PAR	RETURN GRILLE	24" X 24"	24" X 24"	SEE PLANS	OFF WHITE	CEILING	<35	B, C

NOTES:
A. FOUR WAY PATTERN UNLESS NOTED OTHERWISE ON DRAWINGS.
B. COORDINATE EXACT FRAME MOUNTING TYPE WITH ARCHITECTURAL CEILING PLAN. PROVIDE RAPID-MOUNT FRAME FOR GYB APPLICATIONS.
C. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE NOTED.

FIELD VERIFY ALL CONDITIONS

DESIGN DRAWINGS ARE SCHEMATIC. THIS CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING OR AWARD OF CONTRACT TO INSPECT EXISTING FIELD CONDITIONS. THIS CONTRACT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY FOR FIELD MODIFICATIONS DUE TO EXISTING CONDITIONS.

THE CONTRACTOR SHALL CONTACT THE ARCHITECT, ENGINEER OR OWNER PRIOR TO BIDDING FOR INTERPRETATIONS AND CLARIFICATIONS OF THE DESIGN AND INCLUDE IN HIS BID ALL COSTS TO MEET THE DESIGN INTENT. CLARIFICATIONS MADE BY THE ARCHITECT, ENGINEER OR OWNER AFTER BIDDING WILL BE FINAL AND SHALL BE IMPLEMENTED AT CONTRACTOR'S COST.

BIDDING CONTRACTORS SHALL HAVE A WORKING KNOWLEDGE OF LOCAL CODES AND ORDINANCES AND SHALL INCLUDE IN THEIR BIDS THE COSTS FOR ALL WORK INSTALLED IN STRICT ACCORDANCE WITH GOVERNING CODES. THE PLANS AND SPECIFICATIONS NOT WITHSTANDING, THE CONTRACTOR SHALL ALERT ARCHITECT, ENGINEER OR OWNER OF ANY APPARENT DISCREPANCIES BETWEEN GOVERNING CODES AND DESIGN INTENT.

VENTILATION SCHEDULE

ROOM NAME	AREA, SQ. FT.	OCCUPANTS PER 1000 SQ. FT.	OCCUPANT LOAD	O.A. PER PERSON, CFM	OCCUPANT O.A., CFM	O.A., CFM PER SQ. FT.	AREA O.A., CFM	BASE O.A. REQUIRED (CFM)	SERVED BY
SUPPORT ROOM	574	-	2	-	-	0.12	[illegible]	69	HP-1
TOILET ROOM	51	-	1	70	-	-	-	70	HP-1
SALES ROOM	313	-	3	7.5	23	[illegible]	57	[illegible]	HP-1
								219	

NOTES:
1. SET OUTSIDE AIR FOR HP-1 TO 220 CFM.
2. OUTSIDE AIR BASED ON 2012 INTERNATIONAL MECHANICAL CODE.

System Checksums
By PDMS DESIGN GROUP

System - 001

System 4 - 2007/2010 - Packaged Rooftop Heat Pump

COOLING COIL PEAK / CLG SPACE PEAK

Peaked at Time: Mo/Hr: 7 / 14 — Outside Air: OADB/WB/HR: 92 / 73 / 99
CLG SPACE PEAK: Mo/Hr: 6 / 17 — OADB: 92

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads						
Skylite Solar	0	0	0	0	0	0
Skylite Cond	0	0	0	0	0	0
Roof Cond	0	678	678	2	0	0
Glass Solar	0	0	0	0	0	0
Glass/Door Cond	0	0	0	0	0	0
Wall Cond	0	0	0	0	0	0
Partition/Door	0		0	0	0	0
Floor	0		0	0	0	0
Adjacent Floor	0	0	0	0	0	0
Infiltration	0		0	0	0	0
Sub Total ==>	0	678	678	2	0	0
Internal Loads						
Lights	2,747	687	3,433	10	2,747	12
People	3,000	0	3,000	9	1,500	7
Misc	17,748	0	17,748	54	17,748	80
Sub Total ==>	23,494	687	24,181	73	21,994	99
Ceiling Load	226	-226	0	0	272	1
Ventilation Load	0	0	8,292	25	0	0
Adj Air Trans Heat	0		0	0	0	0
Dehumid. Ov Sizing			0	0		
Ov/Undr Sizing	1		1	0	1	0
Exhaust Heat		-180	-180	-1		
Sup. Fan Heat			0	0		
Ret. Fan Heat		0	0	0		
Duct Heat Pkup		0	0	0		
Underflr Sup Ht Pkup			0	0		
Supply Air Leakage		0	0	0		
Grand Total ==>	23,722	958	32,972	100.00	22,267	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design — OADB: 19

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-552	4.41
Glass Solar	0	0	0.00
Glass/Door Cond	0	0	0.00
Wall Cond	0	0	0.00
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0	0	0
Infiltration	0	0	0.00
Sub Total ==>	0	-552	4.41
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-92	0	0.00
Ventilation Load	0	-12,048	96.17
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		73	-0.58
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-92	-12,527	100.00

TEMPERATURES

	Cooling	Heating
SADB	60.1	70.1
Ra Plenum	75.8	69.7
Return	75.8	69.7
Ret/OA	78.3	61.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	1,392	1,392
Terminal	1,392	1,392
Main Fan	1,392	1,392
Sec Fan	0	0
Nom Vent	220	220
AHU Vent	220	220
Infil	0	0
MinStop/Rh	0	0
Return	1,392	1,392
Exhaust	220	220
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	15.8	15.8
cfm/ft²	1.48	1.48
cfm/ton	440.39	
ft²/ton	296.85	
Btu/hr·ft²	40.42	-16.69
No. People	6	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	3.2	37.9	27.1	1,392	78.3	64.5	72.3	60.1	55.5	60.9
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	3.2	37.9								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	938		
Part	0		
Int Door	0		
ExFlr	0		
Roof	51	0	0
Wall	0	0	0
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-15.7	1,392	61.7	70.1
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-15.7			

Project Name: 180165
Dataset Name: 180165.TRC

TRACE® 700 v6.3.2 calculated at 09:55 AM on 06/28/2018
Alternative - 1 System Checksums Report Page 1 of 1

RESPONSIBILITIES

E - EXISTING
L - LANDLORD
C - TENANT'S GENERAL CONTRACTOR
T - TENANT

		FURNISH	INSTALL	NOTES
ROOFTOP HVAC				
A	ROOF TOP UNIT	E	E	
B	DUCTWORK & INSULATION	[illegible]	E/C	
C	GRILLES & REGISTERS	E/C	E/C	
D	CONTROLS	E	[illegible]	
E	THERMOSTAT	E	C	
F	CONDENSATION DRAIN LINE	E	E	
G	OPENING THRU ROOF	E	E	
H	ROOF CURB	E	E	
I	TEST AND BALANCE	C	C	
TOILET EXHAUST				
A	EXHAUST FAN	E	E	
B	DUCTWORK	E	E	
C	OPENING THROUGH ROOF	E	E	

NOTES:
1 ROOF TOP EQUIPMENT SHALL BE PAINTED WITH 3" TALL STENCILS TO INDICATED TENANT NAME AND SUITE#.
2 HVAC DISCONNECTS (AND MOTOR STARTERS IF REQUIRED) SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.

MECHANICAL EQUIPMENT ABBREVIATIONS

A.C.U. OR A.C.	AIR CONDITIONING UNIT (SPLIT-DX OR WATER COOLED)
A.F.F.	ABOVE FINISHED FLOOR
A.H.U.	AIR HANDLING UNIT
B.T.U.H.	BRITISH THERMAL UNIT / HOUR
C.H.	CABINET HEATER
C.U.	CONDENSING UNIT (SPLIT-DX SYSTEMS)
C.F.M.	CUBIC FEET PER MINUTE
E.A.T.	ENTERING AIR TEMPERATURE
E.B.H.	ELECTRIC BASEBOARD HEATER
E.D.H.	ELECTRIC DUCT HEATER
E.E.R.	ENERGY EFFICIENCY RATIO
E.F.	EXHAUST FAN
E.S.P.	EXTERNAL STATIC PRESSURE
F.C.U.	FAN COIL UNIT
F.F.C.H.	FORCED FLOW CABINET HEATER
F.L.A.	FULL LOAD AMPS
K.W.	KILOWATT
L.A.T.	LEAVING AIR TEMPERATURE
M.C.A.	MINIMUM CIRCUIT AMPACITY
N.C.	NOISE CRITERIA
O.A.	OUTSIDE AIR
P.S.I.	POUNDS PER SQUARE INCH
R.L.A.	RUNNING LOAD AMPS
R.T.U.	ROOF TOP UNIT
S.E.E.R.	SEASONAL ENERGY EFFICIENCY RATIO
U.H.	UNIT HEATER
U.N.O.	UNTIL NOTED OTHERWISE
V.F.	VENTILATION FAN
W.C.	WATER COLUMN
W.G.	WATER GAUGE

ALL ABBREVIATIONS ON THIS LIST ARE NOT NECESSARILY USED ON THIS PROJECT.

Häagen-Dazs®

SHOP# 1306
SPACE #1164
WEST TOWN MALL
7600 KINGSTON PIKE
KNOXVILLE, TN 37919

No.	Revisions	Date

pdms design group
pdmsdesign.com
2225 East Randol Mill Road, Suite #300
Arlington, Texas 76011
817.633.4200 p ● 817.633.4153 f

This document contains information proprietary to PDMS Design Group and is furnished in confidence for the limited purpose of evaluation, bidding, review, or construction. This document or its contents may not be used for any other purpose and may not be reproduced or disclosed to others without the prior written consent of PDMS Design Group

DR
DANIEL A. REEVES, P.E.
2225 E. Randol Mill Rd, Suite 300
Arlington, TX 76011
(817)701-4808
FAX (817)633-4153
Tennessee License #116073

DANIEL A. REEVES — REGISTERED ENGINEER — AGRICULTURE — COMMERCE — No. 116073 — STATE OF TENNESSEE

Project No.	180165
Scale	AS NOTED
Drawn	AH
Checked	DAR
Date	06/29/2018
Drawing Title	MECHANICAL SCHEDULES
Drawing No.	M2.0

Order Plans @ www.DIILine.com