

ROOFTOP UNIT SCHEDULE																													
ID	SERVES	MANUFACTURER	MODEL NO.	TYPE	SUPPLY AIRFLOW (CFM)	OUTSIDE AIR (CFM)	FAN			COOLING COIL				HEATING		ELECTRICAL		CONDENSER		COMPRESSOR		ELECTRICAL	NOTES						
							HP	NOMINAL CAP	TOTAL CAP	SENSIBLE	EAT(°F)	AIRSIDE EAT(°F)	LAT(°F)	LAT(°F)	INPUT TYPE	FUEL TYPE	AMBIENT DBT	EER	UNIT WEIGHT	MCA	MOCP			VOLT	PH	FLA	QTY	RLA (each)	FAN (FLA)
RTU-1	BOHNITZ	TRANE	YHC2060F3	DOWNFLOW	2000 CFM	400 CFM	0.80 in-wg	1.00 hp	5.0 ton	61000 Btu/h	45800 Btu/h	80.0 °F	87.0 °F	55.0 °F	56.0 °F	80000 Btu/h	GAS	95.0 °F	12.95	1060 lb	30.0 A	45.0 A	208 V	3	2.5 A	1	15.0 A	5.0 A	1-16
RTU-2	FCHONGING	TRANE	YHC120F3RLA	DOWNFLOW	4200 CFM	800 CFM	0.80 in-wg	2.75 hp	10.0 ton	112000 Btu/h	90000 Btu/h	80.0 °F	87.0 °F	55.0 °F	56.0 °F	140000 Btu/h	GAS	95.0 °F	12.4	1680 lb	47.7 A	60.0 A	208 V	3	2.7 A	2	13.2 A	7.3 A	1-16

TRANE NATIONAL ACCOUNT INFORMATION:  
 J.D. HOWARD  
 1-919-232-5729

- NOTES:
- CONTRACTOR SHALL VERIFY MODEL NUMBERS PRIOR TO ORDERING UNITS THROUGH TRANE NATIONAL ACCOUNT REP.
  - EQUIPMENT SHALL BE SUPPLIED AS COMPLETE SYSTEMS AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MECHANICAL CONTRACTOR SHALL PROVIDE, OPERATION AND MAINTENANCE MANUALS, AND WARRANTY REGISTRATION.
  - PROVIDE SMOKE DETECTORS IN RETURN AIR DUCTS. UNIT SHALL BE EQUIPPED TO SHUT DOWN UPON SENSING SMOKE
  - PROVIDE 14" TALL INSULATED SLOPED ROOF CURB
  - RTUS SHALL BE 10 FT MINIMUM FROM ANY EXHAUST OUTLET, BUILDING OPENING, OR AIR INTAKE, AND UNPROTECTED EDGE OF ROOF.
  - ALL COMPRESSORS SHALL BE FIELD SERVICEABLE AND FITTED WITH SERVICE VALVES.
  - PROVIDE FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH AND NON-POWERED CONVENIENCE RECEPTACLE.
  - PROVIDE HINGED ACCESS DOORS FOR EASE OF AIR FILTER REPLACEMENT.
  - PROVIDE WITH PHASE LOSS PROTECTION.
  - DIFFERENTIAL ENTHALPHY ECONOMIZER WITH BAROMETRIC RELIEF. PROVIDE WITH FDD CONTROLS.
  - EACH UNIT TO HAVE (1) TRANE 7 DAY PROGRAMMABLE THERMOSTAT IN OFFICE AND (1) SPACE TEMPERATURE SENSOR. CONTROL PACKAGE SHALL BE CAPABLE OF ADJUSTABLE NIGHT SETBACK.
  - FILTER RACK AND (3) SETS OF 2" PLEATED FILTERS, ONE INSTALLED AT TIME OF INSTALLATION, ONE FOR REPLACEMENT AT TIME OF POSSESSION (BY CONTRACTOR), ONE REPLACEMENT SET TO REMAIN WITH OWNER.
  - PROVIDE 2 STAGES OF FAN SPEED WITH NO MORE THAN 85 PERCENT SPEED WHEN OPERATING ON STAGE 1 WHILE DRAWING NO MORE THAN 40 PERCENT FULL FAN POWER WHEN RUNNING AT 86 PERCENT SPEED.
  - PROVIDE WITH HAIL GUARDS.
  - EACH UNIT TO BE PROVIDED WITH A WATER-LEVEL MONITORING DEVICE INSTALLED IN PRIMARY DRAIN PAN WHICH SHALL SHUT OFF RTU IN THE EVENT THAT THE PRIMARY DRAIN PAN BECOMES RESTRICTED.
  - PROVIDE WITH DEHUMIDIFICATION OPTION.

FAN SCHEDULE																
ID	SERVICE	MANUFACTURER	MODEL NO.	TYPE	AIRFLOW			PRESS	RPM	DRIVE TYPE	HP	VOLT	PH	FLA	WEIGHT	NOTES
					DESIGN	ESP	UNIT WEIGHT									
KEP-1	HOOD 1	CaptivaAire	NCA14FA	ROOF MOUNT	1800 CFM	0.75 in-wg	1077	BELT	0.75 hp	120 V	1	11.0 A	132 lb	1.2,3		
KEP-2	HOOD 2	CaptivaAire	DJ00HFA	ROOF MOUNT	800 CFM	0.50 in-wg	1166	DIRECT	0.25 hp	120 V	1	3.8 A	53 lb	1.2,3		
EF-3	RESTROOMS/DISH	GREENHECK	G-070-D	ROOF MOUNT	200 CFM	0.30 in-wg	1550	DIRECT	0.03 hp	120 V	1	1.0 A	62 lb	1.3		

- NOTES:
- INSTALL PER MANUFACTURER INSTRUCTIONS.
  - UL 705 AND 782 LISTED GREASE EXHAUST FAN FURNISHED BY CAPTIVAIRE. INTERLOCKED WITH KITCHEN GREASE HOOD OPERATION.
  - FAN TO RUN CONTINUOUSLY DURING OCCUPANCY.

AIR CURTAIN SCHEDULE													
ID	MANUFACTURER	MODEL NO.	SUPPLY AIR		VELOCITY	MOTOR HP	UNIT WEIGHT	FLA	MOCP	VOLT	PH	FREQ	NOTES
			FLOW	TEMP									
AC-1	MARS AIR	LPV236-1UD-0B	900 CFM	1800 FPM	0.17 hp	32 lb	2.4 A	15.0 A	120 V	1	60 Hz	1.2,3	
AC-2	MARS AIR	DTU03-1018A	135 CFM	1045 FPM	0.08 hp	11 lb	2.4 A	13.0 A	120 V	1	60 Hz	2,3,4	

- NOTES:
- AIR CURTAIN TO BE CONTROLLED BY DOOR SWITCH
  - INSTALL PER MANUFACTURER INSTALLATION INSTRUCTIONS
  - PROVIDE WITH WALL MOUNTING BRACKET.
  - AIR CURTAIN TO BE CONTROLLED BY MAGNETI REED DOOR SWITCH KIT.

ASHRAE 62.1 VENTILATION RATE PROCEDURE SUMMARY										
NO.	LOCATION	NAME	Occupancy Category	Area, Az	Number of People, Pz	Outdoor Airflow Rate Per Person, Rp	Outdoor Airflow Rate Per Unit Area, Ra	Breathing Zone Outdoor Airflow, Voc	Zone Air Distribution Effectiveness, Ez	Required Outdoor Air Intake Flow, Vot
101	VESTIBULE	(none)	(none)	67 SF	0	0	0	0	0	0
102	DINING	Cafeteria/Fast-food dining	683 SF	35	7.5 CFM	0.18 CFM/SF	440 CFM	0.8	0.8	549 CFM
103	RESTROOM 2	Toilets (public)	58 SF	0	0	0	0	0	0	0
104	RESTROOM 1	Toilets (public)	60 SF	0	0	0	0	0	0	0
106	CLOSET	Non-Occupiable	10 SF	0	0	0	0	0	0	0
119	PRODUCTION	Kitchen (cooking)	1135 SF	4	7.5 CFM	0.12 CFM/SF	166 CFM	0.8	0.8	208 CFM
121	ALLERGEN	Storage rooms	248 SF	0	0.0 CFM	0.12 CFM/SF	30 CFM	0.8	0.8	37 CFM
122	WASH	Kitchen (cooking)	143 SF	1	7.5 CFM	0.12 CFM/SF	25 CFM	0.8	0.8	31 CFM
123	STORAGE	Storage rooms	327 SF	0	0.0 CFM	0.12 CFM/SF	39 CFM	0.8	0.8	49 CFM
124	MANAGER'S OFFICE	Office space	89 SF	1	6.0 CFM	0.06 CFM/SF	9 CFM	0.8	0.8	11 CFM
125	COOLER/FREEZER	Non-Occupiable	130 SF	0	0	0	0	0	0	0
Default				3223 SF						686 CFM

- NOTES:
- PERMANENT SEAT COUNT USED TO DETERMINE OCCUPANCY FOR ROOM 102 DINING

AIR BALANCE				
MARK	MINIMUM OUTSIDE AIR FLOW	SUPPLY AIR CFM	RETURN AIR CFM	EXHAUST AIR CFM
RTU-1	400	2000	1800	
RTU-2	800	4200	3400	
DOAS-1	2000	2000	0	
KEP-1	--	--	--	1000
KEP-2	--	--	--	1000
EF-1	--	--	--	1000
TOTAL	3200	8200	5000	-2000

DIFFERENCE = +400 CFM

DEDICATED OUTSIDE AIR SYSTEM																												
ID	SERVES	MANUFACTURER	MODEL NO.	TYPE	SUPPLY AIRFLOW (CFM)	OUTSIDE AIR (CFM)	FAN			COOLING COIL				HEATING		ELECTRICAL		CONDENSER		COMPRESSOR		ELECTRICAL	NOTES					
							HP	NOMINAL CAP	TOTAL CAP	SENSIBLE	EAT(°F)	AIRSIDE EAT(°F)	LAT(°F)	LAT(°F)	INPUT TYPE	FUEL TYPE	AMBIENT DBT	EER	UNIT WEIGHT	MCA	MOCP			VOLT	PH	FLA	QTY	RLA (each)
DOAS-1	KITCHEN	TRANE	OADG120	DOWNFLOW	2000 CFM	1000 CFM	1.00 in-wg	4.00 hp	10.0 ton	112000 Btu/h	90000 Btu/h	80.0 °F	87.0 °F	55.0 °F	56.2 °F	150000 Btu/h	GAS	92.0 °F	12.9	2656 lb	53.5 A	60.0 A	208 V	3	2.2 A	2	15.6 A	

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  - PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT. UNIT SHALL BE EQUIPPED TO SHUT DOWN UPON SENSING SMOKE
  - PROVIDE WITH STANDARD KNOCKDOWN CURB.
  - DOAS-1 SHALL BE 10 FT MINIMUM FROM ANY EXHAUST OUTLET, BUILDING OPENING, OR AIR INTAKE, AND UNPROTECTED EDGE OF ROOF.
  - ALL COMPRESSORS SHALL BE FIELD SERVICEABLE AND FITTED WITH SERVICE VALVES.
  - PROVIDE WITH NON-FUSED DISCONNECT SWITCH W/ A NON-POWERED 115V OUTLET.
  - PROVIDE HINGED ACCESS DOORS FOR EASE OF AIR FILTER REPLACEMENT
  - PROVIDE WITH SUPPLY DISCHARGE AIR SENSOR (FLD)
  - EACH UNIT TO HAVE (1) TRANE 7 DAY PROGRAMMABLE THERMOSTAT IN OFFICE AND (1) SPACE TEMPERATURE SENSOR. CONTROL PACKAGE SHALL BE CAPABLE OF ADJUSTABLE NIGHT SETBACK.
  - FILTER RACK AND (3) SETS OF 2" PLEATED FILTERS, ONE INSTALLED AT TIME OF INSTALLATION, ONE FOR REPLACEMENT AT TIME OF POSSESSION (BY CONTRACTOR), ONE REPLACEMENT SET TO REMAIN WITH OWNER.
  - PROVIDE WITH 2-POSITION OUTDOOR AND RETURN AIR DAMPERS.
  - PROVIDE WITH HAIL GUARDS.
  - EACH UNIT TO BE PROVIDED WITH A WATER-LEVEL MONITORING DEVICE INSTALLED IN PRIMARY DRAIN PAN WHICH SHALL SHUT OFF RTU IN THE EVENT THAT THE PRIMARY DRAIN PAN BECOMES RESTRICTED.

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE														
ID	Manufacturer	Model	MATERIAL	FINISH	DESCRIPTION	SIZE	FACE OR MODULE	INSTALLATION	BORDER TYPE	DESCRIPTION	NOTES	FACE OR MODULE		
												TYPE	TYPE	TYPE
EG-1	Titus	355RL	STEEL	WHITE ENAMEL	SINGLE DEFLECTION	12 x 12	---	TYPE 1 (SURFACE)	---	OPPOSED BLADE DAMPER	A,B,C,E	---	---	---
EG-2	Titus	300FS	ALUMINUM	WHITE ENAMEL	OPPOSED DOUBLE DEFLECTION GRILLE	24 x 24	---	TYPE 3 (LAY-IN)	---	OPPOSED BLADE DAMPER	A,B,C,E	---	---	---
RG-1	Titus	355 RL	STEEL	WHITE ENAMEL	SINGLE DEFLECTION	24 x 12	---	TYPE 3 (LAY-IN)	---	---	A,B,C,E	---	---	---
RG-2	Titus	355 RL	STEEL	WHITE ENAMEL	SINGLE DEFLECTION	24 x 12	---	TYPE 1 (SURFACE)	---	---	A,B,C,E	---	---	---
RG-3	Titus	355 RL	STEEL	WHITE ENAMEL	EGGCRATE RETURN GRILLE	24 x 12	---	TYPE 1 (SURFACE)	---	---	A,B,C,E	---	---	---
SD-1	TITUS	300RL	STEEL	WHITE ENAMEL	DOUBLE DEFLECTION SUPPLY	10x8	---	---	---	OPPOSED BLADE DAMPER	A,B,C	---	---	---
SD-2	TITUS	300RL	STEEL	WHITE ENAMEL	DOUBLE DEFLECTION SUPPLY	10x8	---	---	---	OPPOSED BLADE DAMPER	A,B,C,E	---	---	---
SD-3	Titus	OMNI	STEEL	WHITE ENAMEL	PLAQUE FACE DIFFUSER	12 x 12	---	TYPE 3 (LAY-IN)	---	OPPOSED BLADE DAMPER	A,B,C,D,E	---	---	---
SD-4	Titus	TMS-AA	ALUMINUM	WHITE ENAMEL	3-CONE DIFFUSER	24 x 24	---	TYPE 1 (SURFACE)	---	OPPOSED BLADE DAMPER	A,B,C,D,E	---	---	---
SD-5	Titus	TMS-AA	ALUMINUM	WHITE ENAMEL	3-CONE DIFFUSER	24 x 24	---	TYPE 3 (LAY-IN)	---	OPPOSED BLADE DAMPER	A,B,C,D,E	---	---	---
SD-6	Titus	TMR	STEEL	WHITE ENAMEL	Round Ceiling Diffuser	6"Ø	---	---	---	OPPOSED BLADE DAMPER	A,B,C,D,E	---	---	---

- GENERAL NOTES (ALL DEVICES):
- ACCEPTABLE ALTERNATE MANUFACTURERS: CARNES, HART & COOLEY, KRUEGER, METALAIR, MAILOR, TUTTLE & BAILEY.
- NOTES:
- DIFFUSER NECK SIZE SHALL BE SAME AS NOTED BRANCH DUCT SIZE UNLESS NOTED OTHERWISE.
  - COORDINATE FINISH WITH ARCHITECTURAL REFLECTED CEILING PLAN.
  - PROVIDE TRANSITION FITTING FROM GRILLE NECK SIZE TO DUCT SIZE INDICATED ON PLAN.
  - PROVIDE INSULATION ON BACK OF DIFFUSERS AND REGISTERS LOCATED IN DROP CEILING.
  - REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR COORDINATION OF MOUNTING FRAME TYPE AS REQUIRED. PROVIDE LAY-IN FRAME IN GYPSUM BOARD CEILING AS REQUIRED FOR LAY-IN AIR DEVICES. ALL WALL MOUNTED AIR DEVICES TO BE SURFACED MOUNT.

architect + engineer



project no. | KRKDS0003

owner



project info

CONCORD NORTH CAROLINA

issue dates

submission:	Date
OWNER/LL REVIEW	11/01/2018
BID SET	11/01/2018
PERMIT SET	11/01/2018

revisions:

#	Description	Date
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MECHANICAL SCHEDULES  
**M300**

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