

ABBREVIATIONS

AD	- ACCESS DOOR
AFF	- ABOVE FINISHED FLOOR
AHU	- AIR HANDLING UNIT
BDD	- BACKDRAFT DAMPER
BOD	- BOTTOM OF DUCT
CF	- CEILING FAN
CU	- CONDENSING UNIT
DG	- DOOR GRILLE
DAC	- DOOR AIR CURTAIN
E	- EXISTING
EA	- EXHAUST AIR
EAT	- ENTERING AIR TEMPERATURE
EE	- EXISTING EXHAUST
EF	- EXHAUST FAN
EG	- EXHAUST GRILLE
EMS	- ENERGY MANAGEMENT SYSTEM
ER	- EXISTING RETURN
ES	- EXISTING SUPPLY
EUH	- ELECTRIC UNIT HEATER
EWH	- ELECTRIC WALL HEATER
GALV	- GALVANIZED
GC	- GENERAL CONTRACTOR
H	- KITCHEN EXHAUST HOOD
IMC	- INTERNATIONAL MECHANICAL CODE
I/O	- INPUT OUTPUT CONTROL
LAT	- LEAVING AIR TEMPERATURE
LP	- LOUVERED PENTHOUSE
NFPA	- NATIONAL FIRE PROTECTION ASSOCIATION
MAU	- MAKEUP AIR UNIT
N	- NEW
NI	- NEGATIVE IONIZER
NIMC	- NOT IN MECHANICAL CONTRACT
NTS	- NOT TO SCALE
OA	- OUTDOOR AIR
R	- RETURN GRILLE
RA	- RETURN AIR
RTC	- ROOF TOP CONTROL
RTU	- ROOF TOP UNIT
S	- SUPPLY DIFFUSER
SA	- SUPPLY AIR
SS	- STAINLESS STEEL
TG	- TRANSFER GRILLE
TOD	- TOP OF DUCT
VCD	- VOLUME CONTROL DAMPER
UH	- UNIT HEATER
VIF	- VERIFY IN FIELD

LEGEND

Ⓝ	KEYED NOTE		ROUND REDUCING WYE BRANCH
Ⓣ	THERMOSTAT		
Ⓣ	THERMOSTAT WITH LOCKING COVER		
Ⓣ	CPC EMS TEMPERATURE SENSOR		
Ⓣ	CPC EMS HUMIDITY SENSOR		
Ⓣ	CPC EMS DEW POINT SENSOR		
Ⓣ	FAN ON/OFF SWITCH		
Ⓣ	DUCT MOUNTED SMOKE DETECTOR		
Ⓣ	DOOR AIR CURTAIN MICROSWITCH CONTROLLER		
Ⓣ	HOOD FIRE SUPPRESSION SYSTEM MANUAL PULL STATION		
(S)	AIR DEVICE (REFER TO SCHEDULE)		
XXX-#	EQUIPMENT MARK NUMBER (REFER TO SCHEDULE)		
	RETURN ROUND DUCT UP		RETURN RECTANGULAR DUCT UP
	SUPPLY ROUND DUCT UP		SUPPLY RECTANGULAR DUCT UP
	SUPPLY ROUND DUCT DOWN		SUPPLY RECTANGULAR DUCT DOWN
	RETURN ROUND DUCT DOWN		RETURN RECTANGULAR DUCT DOWN
	ROUND ELBOW		RECTANGULAR RADIUS ELBOW
	ROUND LO-LOSS TEE		FLEXIBLE DUCT MAXIMUM 5'-0"
	45° ROUND LATERAL		CONDENSATE LINE
	ROUND REDUCING BULLHEAD TEE WITH VANES		1" DOOR UNDERCUT (FURNISHED WITH DOOR)
	ROUND SPIRAL DOUBLE WALL DUCT		BACKDRAFT DAMPER
			CONNECT NEW TO EXIST
			EXISTING TO REMOVE
			EXISTING DUCT, FITTINGS AND EQUIPMENT TO REMAIN

HVAC SYSTEMS AND EQUIPMENT

EXTERIOR DESIGN CONDITIONS:
 WINTER DRY BULB: 16° F
 SUMMER DRY BULB: 93° F
 SUMMER WET BULB: 76° F

INTERIOR DESIGN CONDITIONS:
 WINTER DRY BULB: 70° F
 SUMMER DRY BULB: 75° F
 RELATIVE HUMIDITY: 50%
 CLIMATE ZONE: 3A

TYPE OF UNIT: UNITARY AIR CONDITIONERS

MINIMUM COOLING EFFICIENCIES:
 COOLING CAPACITY < 65,000 BTUH
 COOLING EFFICIENCY: 14.0 SEER
 COOLING CAPACITY ≥ 65,000 BTUH < 135,000 BTUH
 COOLING EFFICIENCY: 11.2 EER
 COOLING CAPACITY ≥ 135,000 BTUH < 240,000 BTUH
 COOLING EFFICIENCY: 11.0 EER
 COOLING CAPACITY ≥ 240,000 BTUH < 760,000 BTUH
 COOLING EFFICIENCY: 10.0 EER
 COOLING CAPACITY > 760,000 BTUH
 COOLING EFFICIENCY: 9.7 EER

DESIGNER STATEMENT:
 TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN COMPLIES WITH THE HVAC SYSTEMS AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE ENERGY CODE 2018 EDITION.

AIR DEVICE SCHEDULE

MARK	CFM	CONN. SIZE (NOTE 1)	N.C.	DAMPER	MODEL NO.	BASED ON - REMARKS
ES	-	-	-	-	-	EXISTING SUPPLY DIFFUSER
S1	700	18x10	<23	-	5880	KRUEGER/DUCT MOUNTED
S2	500	14x10	<25	-	5880	KRUEGER/DUCT MOUNTED
ER	-	-	-	-	-	EXISTING RETURN GRILLE
R1	-	-	-	-	-	NEW RETURN GRILLE TO MATCH EXISTING SIZE AND TYPE
R2	1085	22x22	17	-	S580	KREUGER/24x24 LAY-IN, HORIZ. BLADES, 3/4" BLADES, 35° DEFLECTION
EE	-	-	-	-	-	EXISTING EXHAUST GRILLE
EDG	-	-	-	-	-	EXISTING DOOR GRILLE

NOTES:
 1. ALL AIR DEVICES SHALL BE PURCHASED BY HVAC CONTRACTOR THROUGH McNAMARA & COMPANY.
 2. GENERAL CONTRACTOR TO FIELD PAINT TO MATCH CEILING COLOR.

AIR BALANCE SCHEDULE

SUPPLY AIR SYSTEMS						EXHAUST SYSTEMS				NOTES		
UNIT NO.	SUPPLY CFM	RETURN AIR CFM (MINIMUM)	OUTSIDE AIR CFM (MINIMUM)	OUTSIDE AIR CFM (MAXIMUM)	UNIT NEW/EXISTING	SERVING	UNIT NO.	FAN CFM	BLDG. EXHAUST CFM		UNIT NEW/EXISTING	SERVING
RTU-5	12,000	7,500	2,250	4,500	REPLACEMENT FOR AHU-1	MAIN SALES	EF-1	2240	2240	EXISTING	EXISTING HOOD H-1	
RTU-1	5,000	4,300	700	700	EXISTING	MAIN SALES FRONT END						
RTU-2	5,000	4,300	700	700	EXISTING	FROZEN FOODS						
RTU-3	3,200	2,700	500	500	EXISTING	DELJ/BAKERY	EF-2	1,200	1200	EXISTING	EXISTING HOOD H-2	
RTU-4	3,400	2,915	485	485	NEW	STOCKROOM/RECEIVING						
							EF-3	1000	1000	EXISTING	EXISTING BAKERY OVEN	
							F-1	0	0	EXISTING	EXISTING HOOD	FAN DELETED PREVIOUS RENO
							F-2	0	0	EXISTING	EXISTING HOOD	FAN DELETED PREVIOUS RENO
							EF-4	630	630	EXISTING	PUBLIC TOILETS	REPLACE EXISING FAN
							F-3	418	0	EXISTING	EMPLOYEE LOUNGE	FAN DELETED PREVIOUS RENO
TOTAL OUTSIDE AIR				6,885								
TOTAL EXHAUST AIR									5,070			
PRESSURIZATION									1,815			

ENVIRONMENTAL CONTROL SYSTEM

DESCRIPTION	RTU-4	RTU-5					
UNIT CONTROL BOARD	MF-RTU	MF-IO					
SPACE TEMP SENSOR	1	2					
UNIT SUPPLY TEMP SENSOR	1	1					
UNIT RETURN TEMP SENSOR	1	1					
OUTDOOR TEMP SENSOR	---	---					
SPACE REL HUMID SENSOR	1	1					
AIR FLOW SWITCH	1	1					
STAGING:							
COOLING	2	3					
GAS/ELECTRIC HEATING	2	MODULATING					
HEAT RECLAIM	1 (SELF-CONT)	2					
FAN	1	1					
DAMPER	1	1					

NOTES:
 1. THE MAIN EMS CONTROLLER SHALL BE FURNISHED WITH EMS PANEL BY HARRIS TEETER THROUGH THE REFRIGERATION EQUIPMENT MANUFACTURER AND FIELD INSTALLED IN THE REFRIGERATION/ELECTRICAL ROOM.
 2. ALL LOOSE CPC CONTROL COMPONENTS SHALL BE FURNISHED BY HARRIS TEETER THROUGH THE REFRIGERATION EQUIPMENT MANUFACTURER UNLESS NOTED OTHERWISE.
 3. THE CONTROL SYSTEM SHALL BE FULLY COMPATIBLE WITH THE HARDWARE/SOFTWARE SYSTEMS INSTALLED WITHIN EACH HVAC SYSTEM LISTED ABOVE.
 4. REFER TO ENERGY MANAGEMENT DRAWINGS FOR INSTALLATION RESPONSIBILITIES AND ADDITIONAL INFORMATION.
 5. HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL UNIT CONNECTIONS AND START-UP.

HVAC EQUIPMENT NOTES

GENERAL NOTE: REFER TO PROJECT SPECIFICATION MANUAL FOR LISTING OF ADDITIONAL MANUFACTURERS, ADDITIONAL FEATURES AND REQUIREMENTS. PROVIDE COMBINATION MAGNETIC STARTER/DISCONNECT WITH HAND/OFF/AUTO SELECTOR SWITCH FOR EACH MOTOR SPECIFIED TO OPERATE AT 200 VOLTS OR HIGHER. PROVIDE MANUAL STARTER/DISCONNECT WITH HAND/OFF/AUTO SELECTOR SWITCH FOR EACH MOTOR SPECIFIED TO OPERATE AT 120 VOLTS. ALL EQUIPMENT SUPPLIED WITH INTEGRAL STARTERS SHALL BE PROVIDED WITH DISCONNECTS.

NOTE: THIS DOCUMENT MAY HAVE BEEN ELECTRONICALLY TRANSMITTED. IF UNSIGNED, IT CANNOT BE FILED FOR PUBLIC RECORD. PUBLIC RECORD FILINGS REQUIRE SIGNED AND SEALED DOCUMENTS.

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No.	Date
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SHEET NAME:
 HVAC SCHEDULES, NOTES, LEGEND AND ABBREVIATIONS

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 H3.2
 ISSUE DATE:
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