

**GENERAL:**

- LOCATE, CUT AND FRAME ROOF OPENINGS AS SHOWN FOR ALL HVAC EQUIPMENT AND EXHAUST FANS.
- IT IS VERY IMPORTANT THAT ACCURATE MEASUREMENTS ARE USED WHEN LOCATING EXHAUST FAN ROOF OPENINGS TO ENSURE THAT NO ADDITIONAL OFF-SETS ARE REQUIRED IN THE EXHAUST DUCTWORK. COORDINATE ROOF OPENINGS WITH THE KITCHEN EQUIPMENT.
- PROVIDE ANY FRAMING REQUIRED FOR DIFFUSER INSTALLATION IN HARD CEILING.

**HVAC:**

- INSTALLATION SHALL CONFORM TO THE ENERGY CONSERVATION DESIGN MANUAL STANDARDS FOR NEW NONRESIDENTIAL BUILDINGS.
- ALL WORK AND MATERIALS SHALL COMPLY WITH GOVERNING CODES, SAFETY ORDERS AND REGULATIONS.
- OBTAIN AND PAY FOR ALL NECESSARY PERMITS, FEES AND INSPECTIONS REQUIRED BY GOVERNING AUTHORITIES.
- E.C. SHALL PROVIDE CONDUIT FOR LINE AND LOW VOLTAGE WIRING, LINE VOLTAGE WIRING SWITCHES, AND FINAL CONNECTIONS.
- M.C. SHALL PROVIDE 24V CONTROL WIRING AND FINAL CONNECTIONS. ANY EQUIPMENT THAT IS SUBSTITUTED SHALL FIT IN THE SPACE PROVIDED WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT NAMED IN THE SPECIFICATIONS. SUBMIT A 1/4" SCALE DRAWING OF ALL EQUIPMENT SUBSTITUTED FOR APPROVAL PRIOR TO INSTALLATION, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND ARCHITECTURAL IMPACT, CLEARANCE REQUIREMENTS AND UTILITY REQUIREMENTS.
- FOR INSTALLATION OF RECHARGEABLE REFRIGERANT LINES FROM ICE MACHINE TO CONDENSER ON ROOF, SEE SCOPE OF WORK.
- HVAC UNITS SHALL BE MOUNTED LEVEL ON ROOF CURBS.
- ALL SUPPLY / RETURN DUCTWORK SHALL BE EXTERNALLY INSULATED.
- ALL SUPPLY / RETURN DUCTS SHALL BE RIGID, WITH THE EXCEPTION OF THE LAST 5'-0", WHICH MAY BE FLEX.
- SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN AIR DUCT, PRIOR TO ANY OUTSIDE AIR CONNECTIONS, AND SHALL DEACTIVATE ROOFTOP UNIT UPON SENSING SMOKE. INCLUDE SMOKE DETECTOR IN THE SUPPLY AIR DUCT ONLY IF REQUIRED BY LOCAL CODE.
- ALL HOOD EXHAUST DUCTS SHALL BE RIGID 16 GA MINIMUM, WELDED DUCT. GRIND ALL WELDS SMOOTH. PROVIDE 3M FIRE BARRIER DUCT WRAP FOR ALL HOOD EXHAUST DUCTS. SEE 15/M4.0.
- ALL BRANCH DUCTS FEEDING INDIVIDUAL DIFFUSERS SHALL HAVE DAMPERS AT TAKEOFFS FOR AIR BALANCING. PROVIDE ACCESS PANELS TO DAMPERS. SEE 8/M4.0.
- ALL UTILITY PIPING FOR RTUS SHALL RUN UP THROUGH ROOF INSIDE EACH UNITS ROOF CURB.
- ALL OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF 10'-0" FROM EXHAUST FANS AND / OR VENTS.
- SEE 8/M1.0 AND SCOPE OF WORK FOR DESCRIPTION OF HVAC PACKAGE TO BE PURCHASED THROUGH YUMI BRANDS NATIONAL CONTRACT.
- FINAL HVAC SYSTEM TESTING AND BALANCING SHALL BE PERFORMED BY INDEPENDENT AGENT CONTRACTED DIRECTLY BY THE OWNER. A RE-TEST IS MANDATORY FOR A FALSE START (I.E. NO POWER UPON AGENTS ARRIVAL, EQUIPMENT NOT WIRED, ETC.) AND SHALL BE A COST INCURRED BY THE G.C. IN THE EVENT A SYSTEM / STORE RECEIVES A GRADE OF 5 OR BELOW AS A RESULT OF THE HVAC SYSTEM PERFORMANCE OR OPERATIONAL DEFICIENCIES, OWNER WILL REQUEST A RE-TEST AND THE COST FOR SAME SHALL BE ALSO INCURRED BY THE GENERAL CONTRACTOR.
- TRANE THERMOSTAT & REMOTE SENSOR BAYSENS135, PROVIDED WITH TRANE PACKAGE. FOR AREAS WITH HIGH WET BULB TEMPERATURES OF 76.5°F AND ABOVE, USE BAYSENS037 FOR ENHANCED DEHUMIDIFICATION SEQUENCE.

**GENERAL NOTES 10**

SYMBOL & ABBREV.	DESCRIPTION
	SA/SUP SUPPLY AIR (RISE/DROP)
	RA/RET RETURN AIR DUCT (RISE/DROP)
	EA/EXH EXHAUST AIR DUCT (RISE/DROP)
	CD/SR CEILING DIFFUSER/SUPPLY REGISTER (ARROWHEAD REPRESENTS NUMBER OF THROW)
	RR/RG RETURN REGISTER/GRILLE
	ER/EG EXHAUST REGISTER/GRILLE
	RECTANGULAR DUCT ELBOW WITH TURNING VANES
	MVD MANUAL VOLUME DAMPER
	FD FIRE DAMPER
	DUCT LINING (1" THICK UNLESS OTHERWISE NOTED)
	SINGLE LINE DUCT BRANCH TAKEOFF
	DUCT TRANSITION (RECTANGULAR TO ROUND)
	FLEX FLEXIBLE DUCT (14'-0" MAXIMUM)
	T-STAT PROGRAMMABLE THERMOSTAT, PROVIDED WITH TRANE PACKAGE.
	TS THERMOSTAT SENSOR (REMOTE), PROVIDED WITH TRANE PACKAGE.
	H HUMIDITY SENSOR (REMOTE), PROVIDED WITH TRANE PACKAGE.
	D CONDENSATE DRAIN
	DIA DIAMETER
	DL DOOR LOUVER
	UC DOOR UNDERCUT (3/4" MINIMUM)
	MECHANICAL EQUIPMENT DESIGNATION
	R RESET SMOKE DETECTOR RESET
	DOUBLE LINE DUCT SHOE TAP BRANCH TAKEOFF WITH VOLUME DAMPER

SYMBOL & ABBREV.	DESCRIPTION
	A/C, AC AIR CONDITIONING
	BDD BACK DRAFT DAMPER
	CB CIRCUIT BREAKER
	CLG CEILING
	CONN CONNECT/CONNECTION
	CONT CONTINUATION
	CONTR CONTRACTOR
	CFM CUBIC FEET PER MINUTE
	DET DETAIL
	DISC DISCONNECT
	DTR DOWN THRU ROOF
	EF EXHAUST FAN
	(E) EXISTING
	GA GAGE/GAUGE
	GC GENERAL CONTRACTOR
	HVAC HEATING, VENTILATION, AND AIR CONDITIONING
	MFR MANUFACTURER
	MECH MECHANICAL
	(N) NOT SHOWN
	O/A/O.S.A OUTSIDE AIR
	ORB OUTSIDE AIR BACK DRAFT DAMPER
	S STAINLESS STEEL
	TYP TYPE
	UNLESS OTHERWISE NOTED
	UP THRU ROOF

**MECHANICAL SYMBOLS 12**

XX-XXX MARK	AREA SERVED	FAN DATA					COOLING CAPACITY			HEATING CAPACITY			UNIT ELECT DATA			MAX UNIT WEIGHT (LBS)	MANUFACTURER AND MODEL NUMBER	REMARKS	
		SUPPLY CFM	MIN O.A. CFM	ESP	HP	RPM	NOM TONS	M/N CAP (MBH) TOT/SEN	EER	INPUT (MBH)	OUTPUT (MBH)	STAGES	AFUE	VOLTS/PH	MCA				MOPD
RTU-1	DINING	3000	750	0.8'	3.75	1159	7.5	84.5/63.0	12.6	150	120	2	80	208/3	42.4	50	1400	TRANE YHC092F3R	SEE NOTES 1-7,10
RTU-2	KITCHEN	4800	950	1.180'	3.0	693	12.5	179.6/122.2	12.5	250	203	2	81	208/3	71	80	3065	TRANE YZD150F3R	SEE NOTES 1-6,8,9,10

**SCHEDULE NOTES:**

- LISTED CAPACITY IS THE STANDARD UNITS GROSS COOLING CAPACITY AT 80°F DB / 67°F WB EAT AND 105°F AMBIENT. OUTDOOR DESIGN CONDITION, SUMMER 105°F & 74°F WB, WINTER 17°F (ARI STANDARD CONDITIONS). THERMOSTAT SHALL BE PROGRAMMED FOR 73°F IN SUMMER AND 68°F IN WINTER WITH 2°F ADJ. FUNCTION UP OR DOWN. THE UNOCCUPIED TEMP SHALL BE SET TO THE STORE SCHEDULE AND 60°F MINIMUM.
- SPECIFIED RTUS ARE DOWN DISCHARGE PACKAGED GAS / ELECTRIC ROOFTOP UNITS WITH MINIMUM 2-STAGE COOLING. INCLUDES THROUGH THE ROOF CURB POWER, GAS & CONDENSATE DRAIN. GAS PIPING SHALL BE FACTORY PIPED WITH SHUT-OFF OUTSIDE OF UNIT.
- SPECIFIED UNIT INCLUDES HINGED ACCESS DOORS, 2" PLEATED FILTERS, LOW AMBIENT CONTROL TO 0 DEG. F., MODULATING ECONOMIZER, CIRCUIT BREAKER WITH SINGLE POINT WIRING, HALL GUARD, AND FACTORY FABRICATED, KNOCK DOWN ROOF CURB.
- IF REQUIRED, ENHANCED DEHUMIDIFICATION OPTION TO BE INCLUDED. HUMIDITY SENSOR TO BE MOUNTED IN THE RETURN AIR AT THE UNIT. THIS OPTION IS REQUIRED FOR DESIGN WET BULB TEMPERATURE 74 DEG. F AND ABOVE.
- PROJECT LOCATED WITHIN 5 MILES (OR AREAS PRONE TO STRONG WINDS FROM A SALT WATER BODY) REQUIRE EPOXY COATED COILS.
- THERMOSTAT AND REMOTE SENSOR PROVIDED WITH HVAC PACKAGE. THERMOSTAT TO BE TRANE BAYSENS135 PROGRAMMABLE ZONE THERMOSTAT W/ REMOTE SENSOR.
- RTU-1 TO HAVE SINGLE ZONE VAV (SZAV). SZAV INCLUDES VARIABLE SPEED EVAPORATOR FAN.
- RTU-2 TO HAVE EFLEX OPTION. EFLEX INCLUDES VARIABLE SPEED COMPRESSOR, VARIABLE SPEED EVAPORATOR FAN MOTOR & VARIABLE SPEED CONDENSER FAN MOTOR.
- TRANE EFLEX UNITS TO HAVE STARTUP TESTING PERFORMED BY APPROVED SERVICING CONTRACTOR TO ENSURE PROPER OPERATION OF ECONOMIZER, DISCHARGE DAMPERS, SENSORS, ETC. AS RECOMMENDED BY MANUF.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR INTERCONNECTION OF EQUIPMENT. SEE SHEET E6.0.

NOTE: TACO BELL CORPORATE RTU UNITS BASIS OF DESIGN IS TRANE. YORK MAY BE USED AS FRANCHISE OPTION.

**HVAC UNIT SCHEDULE 1**

XX-XXX MARK	CFM	SP	RPM	HP	ELECT	STARTER	ACCESSORIES				MANUFACTURER AND MODEL NUMBER	REMARKS
							DISC	R/D	V-BELT	D-DR		
EF-1	1050	0.9	1344	0.50	120/1		X	-	-	X	STRAPROVENT #SW2501FA	SEE NOTES 1,3,5,6,7,8,10
EF-2	570	0.375	1025	1/4	120/1		X	X	X		STRAPROVENT #SWDR30HFA	SEE NOTES 2,4,7,8,9,10,11

**SUPPLY AND EXHAUST FAN SCHEDULE 2**

XX-XXX MARK	QUANTITY	FAN SIZE	DIFFUSER OR GRILLING GRID SIZE	TYPE	NO. J & AIR PATTERN	MOUNTING	DUTY	MATERIAL		MANUFACTURER	MODEL NUMBER	REMARKS
								ALUMINUM	STEEL			
S-1	18	24x24	24x24	X	VERT 300-700	X	X	X		METAL-AIRE	5000-6	FURNISH SQUARE TO ROUND ADAPTOR
S-2	3	9x9	14x14	X	SEE PLAN 0-250	X		X		METAL-AIRE	5000-1	FURNISH SQUARE TO ROUND ADAPTOR
R-1	5	22x22	24x24	X	NO DIREC 0-2000	X		X		METAL-AIRE	RHE-6	HINGED / FULLY REMOVABLE FACE
E-1	2	8x8	12X12	X	NO DIREC 0-200	X		X	X	METAL-AIRE / TITUS	CCSS-1 / 50F	
E-2	1	10X10	24x24	X	NO DIREC 0-400	X			X	METAL-AIRE / TITUS	CC5-FB-TB / 50F-NT	PROVIDE 2X2" LAY-IN PANEL

- NOTES:  
1. DIFFUSERS IN SURFACE MOUNTED CEILINGS SHALL BE PROVIDED WITH OPPOSED BLADE DAMPERS. SEE ARCHITECTURAL DRAWINGS FOR CEILING TYPES.

**AIR DEVICE SCHEDULE 3**

ITEM	OA	RA	SA	EA	PRESSURE
EF-1	--	--	--	1050	-1050
EF-2	--	--	--	570	-570
RTU-1	750	2250	3000	--	+750
RTU-2	950	3850	4800	--	+950
TOTAL	1700	6100	7800	1620	+80

NOTE: THE OUTSIDE PERCENTAGE OF TOTAL SUPPLY AIR IS 25.0% FOR RTU-1 AND 21.6% FOR RTU-2.

**AIR BALANCE SCHEDULE CFM 4**

**REFER TO SCOPE OF WORK 15700-1 HVAC FOR TEST & BALANCE & COMMISSIONING REQUIREMENTS WHICH WILL BE SUPPLIED BY THE OWNER AND COORDINATED BY THE GC.**

FOR COMPLETE INFORMATION AND PRICING ON THE TRANE HVAC PACKAGE CONTACT MARTY CUSICK, THE YUMI BRANDS ACCOUNT EXECUTIVE AT TRANE NATIONAL ACCOUNTS. TOLL-FREE PHONE: (866) YUMI-HVAC or (866) 986-4822. FAX: (602) 499-7370. EMAIL: mjcusick@trane.com

TACO BELL HAS A NATIONAL HVAC AGREEMENT WITH YORK NATIONAL ACCOUNTS. FOR QUOTES & TECHNICAL SPECIFICATIONS, PLEASE CONTACT MATT MCNAIR, YORK PRODUCT APPLICATION ENGINEER AT 800-481-9738, FAX 866-406-9675. FOR ALL OTHER INQUIRIES, PLEASE CONTACT NATALIE DEROUSSIE, YORK NATIONAL ACCOUNT SALES MANAGER AT 405-419-6416.

TRANE AND YORK HAVE AGREED TO SUPPLY AN HVAC PACKAGE CONSISTING OF THE ROOF-TOP UNITS, CURBS, THERMOSTATS, TEMPERATURE SENSORS (REMOTE), AND HUMIDITY SENSORS (REMOTE). RTUS AS SPECIFIED INCLUDE AN UNPOWERED CONVENIENCE OUTLET (SEE ELECTRICAL) AND AN HACR CIRCUIT BREAKER WHICH PROVIDES UNIT DISCONNECT. TRANE AND YORK ALSO HAVE AVAILABLE OPTION PACKAGES WHICH INCLUDE SMOKE DETECTORS AND ANNUNCIATORS, ECONOMIZERS, AND RTU VARIATIONS SUCH AS HIGH-EFFICIENCY MODELS.

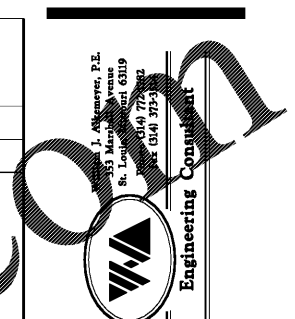
FOR HVAC TEST AND BALANCE, GC TO SCHEDULE WITH TACO BELL'S PREFERRED VENDOR PER SCOPE OF WORK WORKSHEETS.

BE PREPARED AT TIME OF ORDER OR QUOTE REQUEST TO PROVIDE ALL PROJECT DETAILS REGARDING SPECIFICATIONS AND QUANTITIES AS SITE SPECIFIC DESIGN MAY NOT MATCH NATIONAL DESIGN.

SEE THE SCOPE OF WORK SHEETS FOR ADDITIONAL INFORMATION.

**TRANE PACKAGE N.T.S. 8**

Order Plans @ [www.dilines.com](mailto:www.dilines.com)



PERMIT/CONSTRUCTION SET  
DATE: FEB. 28, 2018

CONTRACT DATE: XX-XX-XX  
BUILDING TYPE: EXPLORER LITE 40  
PLAN VERSION: DECEMBER 2017  
SITE NUMBER: XXX-XXX  
STORE NUMBER: XXXXX

TACO BELL  
101 MONTGOMERY CROSSING  
BISCOE, NC 27209



**MECHANICAL SCHEDULES AND NOTES**

**M1.0**

PLOT DATE: