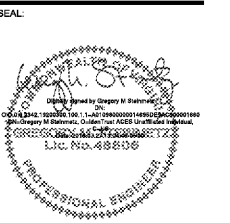


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CLIENT:  
**SONIC**  
 American Drive-In®  
 JOHN COVE, LLC.  
 7790 ABBEY OAKS COURT  
 MANASSAS, VA 20112

PROJECT INFORMATION:

**SONIC**  
 SONIC DRIVE-IN RESTAURANT  
 10850 PROMENADE LANE  
 MANASSAS, VA 20109  
 STORE #6711



PROJECT NO.: 0419738-002  
 DRAWN BY: TAB  
 CHECKED BY: GS

ISSUE: DATE:  
 PERMIT SET 07-27-18

REVISION: DATE:

PROJECT LOCATION:  
 MANASSAS, VA  
 #6711

SHEET NUMBER / TITLE:  
**M1.01**  
 MECHANICAL FLOOR PLAN

AIR BALANCE		
MARK	OUTSIDE AIR CFM	EXHAUST AIR CFM
RTU-1	110	-
RTU-2	55	-
RTU-3	435	-
RTU-4	435	-
RTU-5	435	-
MAU-1	1440	-
EF-1	-	240
EF-2	-	200
TOTAL	-	2800

SPACE: +110 CFM POSITIVE AIRFLOW. THE BALANCE CONTRACTOR SHALL VERIFY THAT THE BUILDING PRESSURE IS AT LEAST POSITIVE 0.02" WC AND POSITIVE 0.02" WC WITH RESPECT TO OUTDOOR. NOTIFY PROJECT MANAGER WITH ANY DISCREPANCIES, OR IF POSITIVE BUILDING PRESSURE CANNOT BE ACHIEVED WITH +110 CFM POSITIVE AIRFLOW.

- KEY NOTES:**
- EXISTING GAS HEAT ROOFTOP UNIT TO BE REUSED - SEE SCHEDULE FOR AIR BALANCE AND REBURISHING REQUIREMENTS. VERIFY EXISTING SMOKE DETECTOR, PROVIDE NEW IF REQUIRED. VERIFY EXACT LOCATION ON SITE.
  - NEW GAS HEAT ROOFTOP UNIT. CONTRACTOR TO REMOVE EXISTING ROOFTOP UNIT (MARK MODEL D4C060) AND PLACE NEW UNIT IN EXISTING LOCATION. RE-USE EXISTING ROOF CURB IF POSSIBLE. PROVIDE NEW IF REQUIRED. VERIFY EXACT LOCATION OF EXISTING UNIT IN FIELD. LOCATION ON DRAWINGS IS APPROXIMATE ONLY - SEE SCHEDULE FOR BALANCING DETAILS.
  - CONTRACTOR TO PROVIDE ALTERNATE BID FOR ADDITIONAL OF WALL HEATER. VERIFY WITH OWNER PRIOR TO START OF WORK. IF DESIRED, INSTALL ELECTRIC WALL HEATER ACCORDING TO MANUFACTURER'S REQUIREMENTS.
  - PROVIDE SMOKE DETECTOR IN RETURN AIR DUCT FOR AUTOMATIC FAN SHUTDOWN. CONTRACTOR SHALL CONFIGURE DETECTOR CONTROL WIRING TO INTERRUPT LOW VOLTAGE SIGNAL. WHERE REQUIRED BY LOCAL CODE, CONTRACTOR TO PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT IN LIEU OF RETURN, OR IN BOTH IF REQUIRED.
  - CONNECT NEW DUCTWORK TO EXISTING DUCT DROP - VERIFY CONNECTION SIZE AND LOCATION IN FIELD.
  - RETURN AIR DUCT/PLENUM DROP FROM UNIT ABOVE. CONTRACTOR SHALL PROVIDE TRANSITION FROM DUCT DROP TO RETURN AIR DUCT. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR. SEE SPECIFICATION SHEET SP6 FOR ADDITIONAL INFORMATION AND INSULATION REQUIREMENTS.
  - FILTERED RETURN AIR GRILL IN LAY-IN CEILING. USE EXTERNALLY INSULATED CANVAS OR NEOPRENE CONNECTION AT RETURN AIR DUCT ABOVE IF NECESSARY FOR ALIGNMENT.
  - SUPPLY AIR DUCT/PLENUM DROP FROM UNIT ABOVE. CONTRACTOR SHALL PROVIDE TRANSITION FROM DUCT DROP TO SUPPLY AIR DUCTS AS SHOWN ON PLAN, LENGTH AS INDICATED ON DRAWING. SEE SPECIFICATION SHEET SP6 FOR ADDITIONAL INFORMATION AND INSULATION REQUIREMENTS.
  - DUCTWORK TO BE INSTALLED AS HIGH AS POSSIBLE. COORDINATE EXACT ROUTING THRU ROOF STRUCTURE IN FIELD. (TYPICAL)
  - FLEX DUCT 5'-0" MAX LENGTH. TYPICAL FOR ALL.
  - THERMOSTATS MOUNTED AT 66" A.F.F. - SEE RTU SCHEDULE FOR ADDITIONAL THERMOSTAT REQUIREMENTS.
  - EXISTING EXHAUST FAN TO REMAIN - CONNECT NEW DUCT TO EXISTING DUCT DROP. VERIFY EXISTING SIZE IN FIELD. SEE SCHEDULE FOR REBURISHING REQUIREMENTS.
  - KITCHEN EXHAUST HOOD TO BE FURNISHED BY OWNER AND INSTALLED BY THE MECHANICAL CONTRACTOR. SEE HOOD PLANS FOR ADDITIONAL INFORMATION.
  - EXTEND MIN. 16-GAUGE BLACK IRON GREASE EXHAUST DUCT, WELDED LIQUID TIGHT, FROM HOOD UP TO FAN AS SHOWN. PROVIDE TRANSITIONS AS REQUIRED FOR CONNECTIONS AT HOOD AND FAN. PROVIDE CLEARANCE REDUCING DUCT WRAP (FYREMASTER FAST WRAP XL OR EQUAL) INSTALLED PER MANUFACTURER'S INSTRUCTIONS TO COMPLY WITH ASTM E2336. PROVIDE APPROVED ACCESS PANELS AS REQUIRED FOR DUCT CLEANING ACCESS PER CODE REQUIREMENTS AND LOCAL AHJ - VERIFY REQUIREMENTS.
  - BLANK-OFF SHADED QUADRANT OF DIFFUSER.
  - MAKE 28"/10 DUCT CONNECTION TO HOOD SUPPLY PLENUM - PLENUM CONNECTION SHALL HAVE INTEGRAL VOLUME DAMPER. BALANCE CONNECTION FOR EQUAL AIRFLOW OF 720 CFM.
  - MAKE 8" DIA. DUCT CONNECTION TO HOOD CONDITIONED SUPPLY PLENUM - PLENUM CONNECTION SHALL HAVE INTEGRAL VOLUME DAMPER. BALANCE CONNECTION FOR EQUAL AIRFLOW OF 160 CFM. CONNECTION TO HOOD SHALL BE RIGID DUCT - NO FLEXIBLE DUCTWORK ALLOWED.
  - ELECTRICAL CONTRACTOR TO CONFIRM OPERATION OF EXISTING DUCT-MOUNTED SMOKE DETECTOR. IF NOT EXISTING, ELECTRICAL CONTRACTOR TO FURNISH AND INSTALL NEW DUCT SMOKE DETECTOR IN RETURN MAIN DUCT AND REMOTE TEST STATION WITH VISIBLE AND AUDIBLE ALARM. SMOKE DETECTOR SHALL SHUT DOWN HVAC UNIT UPON DETECTION OF SMOKE. COORDINATE FIELD LOCATION OF REMOTE TEST STATION WITH AHJ.
  - COORDINATE ACCESS PANEL IN GYP CEILING FOR TOILET EXHAUST BALANCING DAMPER WITH GENERAL CONTRACTOR.

DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED AS SUPPLEMENTING EACH OTHER. WORK SPECIFIED BUT NOT SHOWN ON DRAWINGS, OR SHOWN ON DRAWINGS BUT NOT SPECIFIED, SHALL BE PERFORMED OR FURNISHED AS THOUGH MENTIONED IN BOTH SPECIFICATIONS AND DRAWINGS. IF NOT OTHERWISE DIRECTED, INSTALLATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. WHERE WORK DESCRIBED IN THE SPECIFICATIONS IS IN CONFLICT WITH THE WORK SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL SUPPLY THE GREATER QUANTITY, QUALITY AND COST VIA THE BID AND CONTACT THE ENGINEER FOR CLARIFICATION ON DIRECTION PRIOR TO INSTALLATION.

PRIOR TO BID, THE CONTRACTOR SHALL REVIEW THE MECHANICAL, ELECTRICAL AND KITCHEN EQUIPMENT DRAWINGS. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL RELEVANT WORK IN THE ENTIRE SET OF DOCUMENTS AND REPORT ALL DISCREPANCIES BETWEEN THESE DRAWINGS TO THE ENGINEER PRIOR TO BIDDING FOR CLARIFICATION. IF DISCREPANCIES REMAIN UNRESOLVED DUE TO A SHORT TIME FRAME, THE CONTRACTOR SHALL INCLUDE THE MOST WORK AND THE HIGHER COSTS IN THE BID. SOLUTIONS TO UNREPORTED DISCREPANCIES WILL BE DETERMINED BY THE ARCHITECT/ENGINEER, WITH NO ADDITIONAL COMPENSATION DUE TO THE CONTRACTOR.

AIR DISTRIBUTION DEVICES SCHEDULE				
MARK	DESCRIPTION	DESCRIPTION	MFG./MODEL No.	NOTES
A	SUPPLY	24"x24" LOUVERED FACE, ADJUSTABLE, LAY-IN, ROUND NECK SIZE AS SHOWN ON PLANS.	TITUS MODEL TMSA (+ TMSA-AA) ALTERNATE: KRUEGER 1400A (+51400A)	1, 2
B	SUPPLY	24"x24" PERFORATED FACE, LAY-IN, ROUND NECK SIZE AS SHOWN ON PLANS.	STRATOVENT (CAPTIVE AIRE) DI-PSP STAINLESS STEEL	
C	SUPPLY	12"x12" LOUVERED FACE, SURFACE MOUNT, ROUND NECK SIZE AS SHOWN ON PLANS.	TITUS MODEL TMS (+ TMS-AA) ALTERNATE: KRUEGER 1400 (+ 51400)	1
D	EXHAUST	12"x12" 35 DEG BLADE, SURFACE MOUNT.	TITUS MODEL 350 RL (+ 350FL) ALTERNATE: KRUEGER S580H (+ S580H)	1
E	RETURN	24" x 48" FACE, LAY-IN, FILTER FRAME 20"x44" FILTER SPACE	TITUS MODEL 350RLF1 (+ 350FF1) ALTERNATE: KRUEGER S580H-5FF (+ S580H-5FF)	1

NOTES:  
 1. DIFFUSER MODEL NUMBERS ENCLOSED IN PARENTHESIS I.E. (+ XXXX) ARE FOR ALUMINUM DIFFUSERS. COORDINATE THE USE OF ALUMINUM WITH OWNER.  
 2. ADJUST VANES ON DIFFUSER FOR FULL VERTICAL THROW.

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