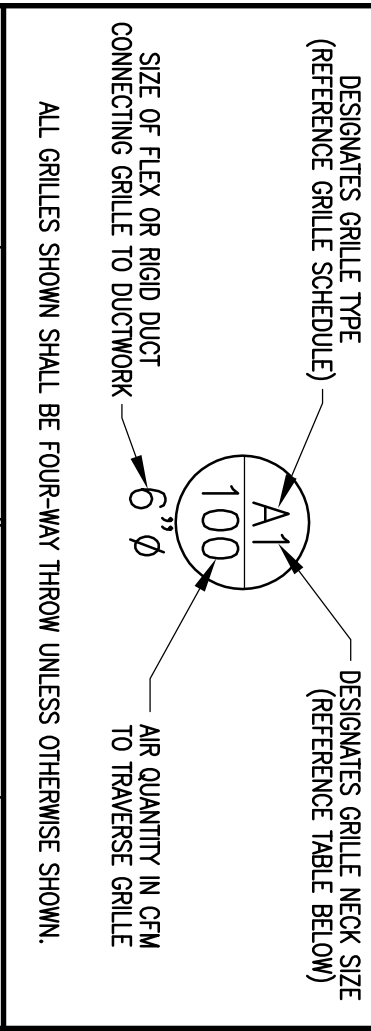


SYMBOL LEGEND

SYMBOL	DESCRIPTION (REFERENCE TAGS NOT SHOWN ON PLANS)
GENERAL	
	KEY NOTE TAG
	REVISION TAG
	NEW EQUIPMENT
DUCTWORK	
	SUPPLY AIR DUCTWORK
	RETURN AIR AND OUTSIDE AIR DUCTWORK
	EXHAUST AIR DUCTWORK
	FLEXIBLE DUCTWORK
	SUPPLY AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	RETURN AIR AND OUTSIDE AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	EXHAUST AIR DUCTWORK THROUGH HORIZONTAL PARTITION
	FIRE DAMPER (VERTICAL)
	MANUAL BALANCING DAMPER (SEE DAMPER SCHEDULE)
	MOTORIZED DAMPER (SEE DAMPER SCHEDULE)
SENSORS	
	THERMOSTAT AND TEMPERATURE SENSOR
	HUMIDISTAT
	SMOKE DETECTOR
AIR DEVICES	
	AIR DEVICE TAG (REFER TO AIR DEVICE SCHEDULE)
	SUPPLY AIR GRILLE WITH FOUR-WAY THROW
	RETURN AIR GRILLE WITH SOUND BOOT
	EXHAUST AIR GRILLE
PIPING	
	CONDENSATE DRAIN LINE

GRILLE SIZING SCHEDULE

GRILLE SIZE DESIGNATION	GRILLE NECK SIZE	GRILLE SIZE DESIGNATION	GRILLE NECK SIZE
1	6" x 6"	7	15" x 15"
2	8" x 8"	8	16" x 16"
3	9" x 9"	9	18" x 18"
4	10" x 10"	10	20" x 20"
5	12" x 12"	11	22" x 22"
6	14" x 14"	12	24" x 24"



OUTSIDE AIR ANALYSIS

AREA	SQ. FEET	O.A.S.F.	CFM
BDL-1	1405	0.25	351.25
DINING			
BDL-2	1025	0.25	256.25
DINING	110	0.05	5.50
VESTIBULE	180	0.00	0.00
WOMENS	180	0.00	0.00
MENS	180	0.25	45.00
PICKUP			
BDL-3	40	0.05	2.00
MECHANICAL	85	0.05	4.25
CORRIDOR	60	0.08	4.80
OFFICE	295	0.30	88.50
KITCHEN			
BDL-4	605	0.30	181.50
KITCHEN			

TOTAL - MINIMUM REQUIRED 939.05

OUTDOOR AIR CALCULATIONS BASED ON HOUSTON AMENDMENTS TO 2006 LMC TABLE 4-1
SEE SCHEDULES FOR ACTUAL OUTDOOR AIR VENTILATION RATES

DIFUSER, REGISTER & GRILLE SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	MATERIAL	DESCRIPTION	FACTORY FINISH	BLOW PATTERN	NOTES
A	TISS	TMS	SEE PLANS	STEEL	SUPPLY DIFUSER	WHITE	4-WAY	
B	TISS	350RL	SEE PLANS	STEEL	RETURN AIR GRILLE	WHITE	NA	1
C	TISS	TMS	SEE PLANS	STEEL	SUPPLY DIFUSER	WHITE	3-WAY	2

NOTES:
1. 3/4" BLADE GRATING, 35 DEFLECTION, LONG BLADE
2. BANK OFF QUADRANT ON DIFUSER TO PROVIDE 3-WAY THROW.

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	SERVICE	AIRFLOW (CFM)	ESP (in wg)	RPM	ELECTRICAL DATA		NOTES
							V/PH/Hz	WATTS/AMPS/SONES	
EF-1	COOK	SON-D	WOMENS	225	0.375	1,350	115/1/60	99/4.4/5.8	1,2,3
EF-2	COOK	SON-D	MENS	225	0.375	1,350	115/1/60	99/4.4/5.8	1,2,3
EF-3	BRONN	L-200	MECHANICAL	150	0.375	740	115/1/60	127/1.8/2.9	1,2,3

NOTES:
1. PROVIDE FAN WITH DEDICATED WALL SWITCH.
2. PROVIDE SPEED CONTROLLER FOR FAN SPEED ADJUSTMENT.
3. PROVIDE ALL EXHAUST FANS WITH DISINFECTANT BRACKET DAMPERS.

EXISTING EQUIPMENT SCHEDULE

(E)RUL-1	3750 CFM, 400 CFM O.A., 10 TONS COOLING AND 25 KW HEAT MINIMUM. RUND #RLB-41200L
(E)RUL-2	3750 CFM, 350 CFM O.A., 10 TONS COOLING AND 25 KW HEAT MINIMUM. RUND #RLB-41200L
(E)RUL-3	200 CFM O.A., 4 TONS COOLING AND 7 KW HEAT MINIMUM. RUND #RLB-40480X
(E)RUL-4	2600 CFM, 250 CFM O.A., 7.5 TONS COOLING AND 25 KW HEAT MINIMUM. RUND #RLB-4030L
(E)KEE-1	2500 CFM @ 0.375 sp DAYTON #4HX96A
(E)KEE-2	3450 CFM @ 0.375 sp DAYTON #4HX96A
(E)KEE-3	1500 CFM @ 0.375 sp DAYTON #4HX94A
(E)MUL-1	3450 CFM @ 0.375 sp DAYTON #4YC47
(E)MUL-2	1500 CFM @ 0.375 sp DAYTON #4YC47

NOTE TO PLAN CHECKER!

ALL MECHANICAL ROOFTOP UNITS ARE EXISTING TO REMAIN. THEREFORE THIS PROJECT IS DEEMED FROM THE REQUIREMENTS OF THE 2009 I.E.C.C.

MECHANICAL GENERAL NOTES

- CODES, RULES AND REGULATIONS - DESIGN OF SYSTEM
 - ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES AND CODES.
 - WHEN THE DRAWINGS CALL FOR MATERIALS OR WORKMANSHIP OF A QUALITY GREATER THAN REQUIRED BY THE ABOVE MENTIONED CODES AND RULES, WORK SHALL BE AS SPECIFIED OR SHOWN RATHER THAN AS REQUIRED BY CODE. ALL ITEMS OR FEATURES OF THE MECHANICAL SYSTEMS REQUIRED BY CODE SHALL BE INCLUDED, EVEN THOUGH NOT SPECIFIED HEREIN.
 - INSTALLATION OF THE SYSTEMS SHALL BE IN ACCORDANCE WITH THE ABOVE MENTIONED CODES AND REGULATIONS AND ALSO SHALL CONFORM TO GOOD, ACCEPTED MECHANICAL PRACTICES.
- FLEXIBLE CONNECTIONS AT SUPPLY AND RETURN AIR OPENINGS OF ALL AIR HANDLING UNITS.
- FLEXIBLE DUCTS TO BE GAS-FLEX 6'-0", MAXIMUM IN LENGTH, WHERE APPLICABLE.
- COORDINATE EXACT LOCATION OF ALL AIR OUTLETS AND INLETS (DIFFUSERS, REGISTERS AND GRILLES) WITH APPROPRIATE ARCHITECTURAL PLANS AND VERIFY THEIR LOCATION WITH ARCHITECT ON THE JOB SITE BEFORE INSTALLATION. COLOR AS DIRECTED BY OWNER.
- AUTOMATIC TEMPERATURE CONTROL DEVICE FOR REGULATION OF SPACE HAVING THE CAPABILITY TO MAINTAIN THE HEATING AND COOLING IN A RANGE OF UP TO 5°F BETWEEN FULL HEATING AND FULL COOLING AND HAVE CAPABILITY OF THERMOSTATING ALL HEATING AT A TEMPERATURE NO MORE THAN 70°F, AND COOLING AT A TEMPERATURE NOT LESS THAN 78°F.
- APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE FASTENED IN PLACE.
- A MAINTENANCE LABEL SHALL BE AFFIXED TO MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNERS USE.
- PROVIDE ACCESS PANEL FOR ALL CEILING MOUNTED EQUIPMENT & VOLUME DAMPERS.
- PROVIDE 1/4" SEPARATION BETWEEN POINT OF EXHAUST AND ANY FRESH AIR INTAKE OR AIR HANDLING UNIT OSA INTAKE.
- PROVIDE FIRE DAMPER OR SMOKE/FIRE DAMPER WHERE DUCT PENETRATES FIRE RATED CEILING OR WALL, IF APPLICABLE.
- TRANSVERSE JOINTS FOR ALL AIR SUPPLY DUCTS INSTALLED WHERE AIR LEAKAGE WOULD BE NON-BENEFICIAL TO THE OCCUPIED AREA, TEMPERATURE REQUIREMENTS SHALL BE SEALED WITH APPROVED MASTIC OR TAPE.
- ALL DUCT SIZES SHOWN ON THE FLOOR PLANS ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL ENLARGE DUCT SIZE IN ORDER TO ACCOMMODATE UNITS INSIDE OF BOOT IF REQUIRED.
- THE MECHANICAL CONTRACTOR SHALL SCORE AND PAY FOR ALL REQUIRED PERMITS AND FEES.
- THE PROJECT SHALL BE AIR BALANCED AND A COPY OF THE FINAL REPORT SHALL BE PRESENTED TO THE TENANT AND OWNER.
- ENERGY CONSERVATION STANDARDS FOR NEW NONRESIDENTIAL BUILDINGS HAVE BEEN REVIEWED AND DESIGN SUBSTANTIALLY COMPLIES TO THEM.
- EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2,000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF. THE SMOKE STREAM OF THE FILTERS OR THEY MAY BE INSTALLED IN EACH ROOM OR SPACE SERVED BY THE SUPPLY AIR DUCT. DETECTORS SHALL ALSO BE INSTALLED IN THE MAIN RETURN DUCT (IF REQD. BY THE LOCAL CODE) AHEAD OF OSA INTAKE. SEE CODE FOR EXEMPTIONS AND LOCAL AUTHORITY FOR CODE INTERPRETATION, OR AS INDICATED ON PLAN.
- ALL EQUIPMENT AND APPLIANCES ARE LISTED PRODUCTS, AND WILL BE INSTALLED ACCORDING TO THEIR LISTING, AND ALL LISTING INFORMATION WILL BE AVAILABLE FOR INSPECTION.
- DUCTWORK CONSTRUCTION DETAILS:
 - SUPPLY AND RETURN MATERIAL: INSULATED DUCTBOARD (R-8) WITH HEAVY DUTY ALUMINUM TAPE.
 - KITCHEN EXHAUST MATERIAL: MINIMUM 16 GAUGE BLACK STEEL WITH WELDED JOINTS.
 - DISHWASHER EXHAUST MATERIAL: STAINLESS STEEL WITH WELDED JOINTS.
 - KITCHEN MAKEUP MATERIAL: GALVANIZED STEEL.
- REFER TO DETAILS OR GUIDELINES FOR MECHANICAL CONSTRUCTION REQUIREMENTS. INSTALL IN FULL ACCORDANCE WITH PROPER CODES AND GUIDELINES.
- COORDINATE IN THE FIELD THE EXACT LOCATION OF ALL CEILING MOUNTED GRILLES AND DIFFUSERS WITH LIGHT FIXTURES AND (ARCHITECTURAL) REFLECTED CEILING PLAN.
- ALL EXTERIOR BRACKETS, CLAMPS, AND HANGERS SHALL BE HOT DIPPED GALVANIZED. COAT ALL CUT ENDS AND WELDS WITH "ZnC" COOL GALVANIZING COMPOUND.
- SHOP PRIME ALL MISCELLANEOUS INTERIOR BRACKETS AND HANGERS UNLESS GALVANIZED OR STAINLESS STEEL.
- DUCTWORK INSULATION DETAILS:
 - SUPPLY AND RETURN MATERIAL: INSULATED DUCTBOARD (R-8) WITH HEAVY DUTY ALUMINUM TAPE.
 - KITCHEN EXHAUST MATERIAL: EXTERNAL R5 FIBERGLASS INSULATION WITH VAPOR BARRIER.
 - DISHWASHER EXHAUST MATERIAL: EXTERNAL R5 FIBERGLASS INSULATION WITH VAPOR BARRIER.
 - KITCHEN MAKEUP MATERIAL: EXTERNAL R5 FIBERGLASS INSULATION WITH VAPOR BARRIER.
 - EXHAUST MATERIAL: EXTERNAL R5 FIBERGLASS INSULATION WITH VAPOR BARRIER.