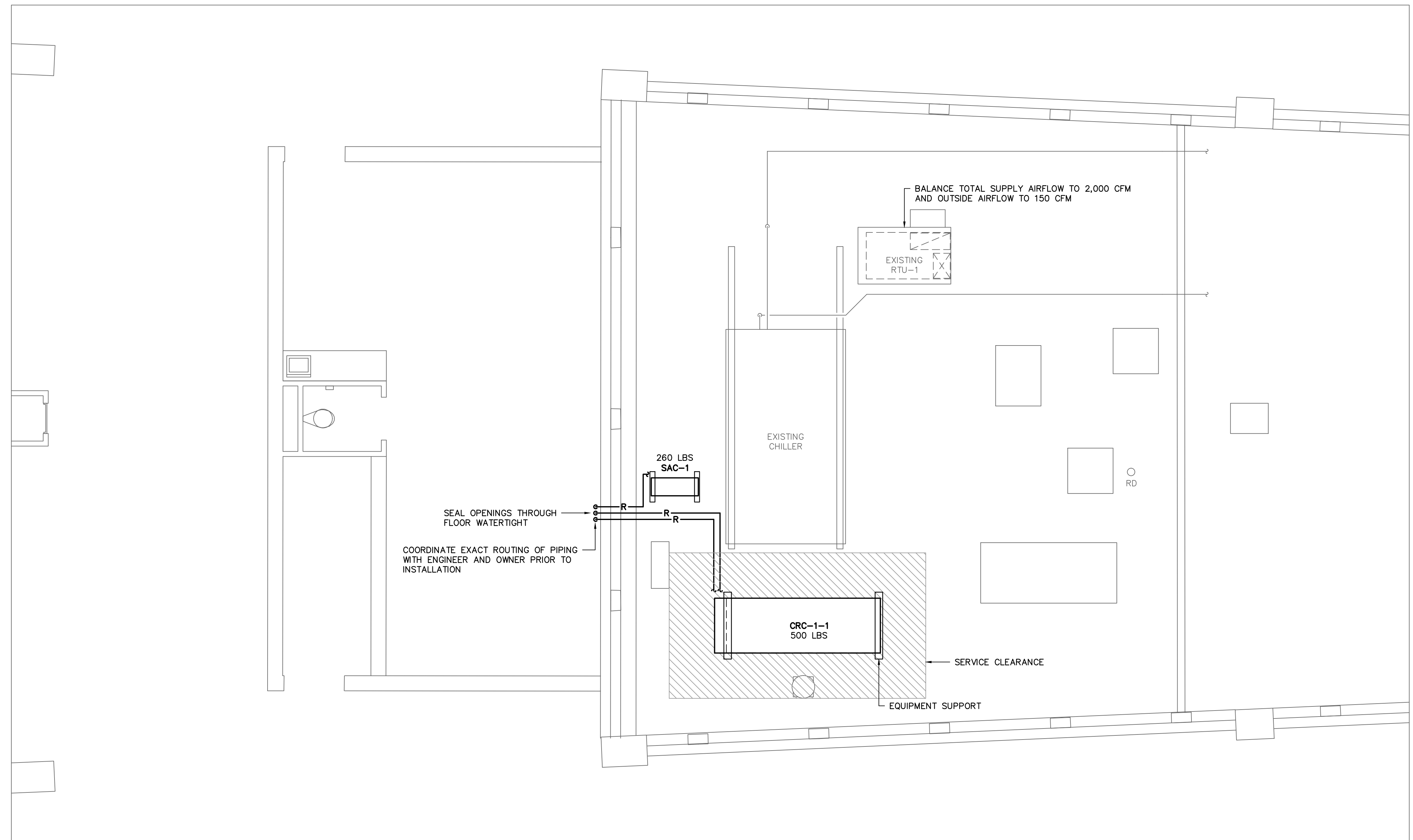


DEMOLITION NOTES

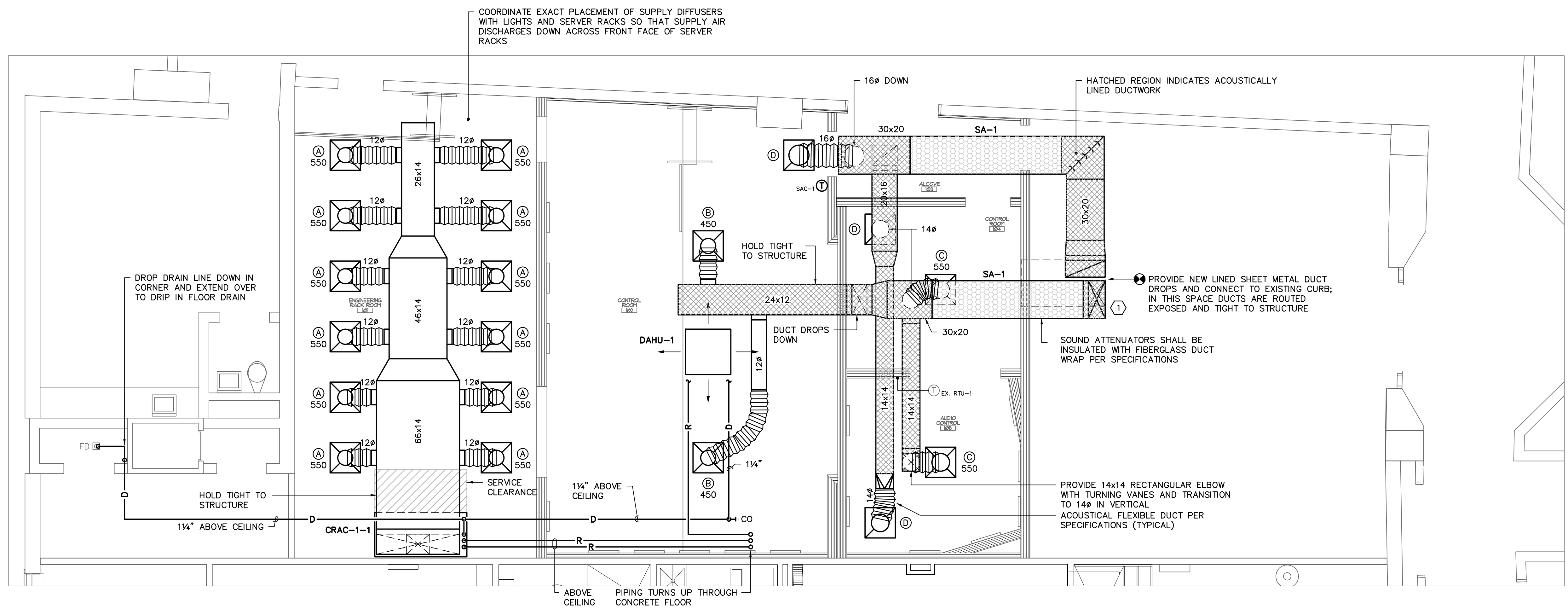
① REMOVE EXISTING DUCT ASSOCIATED WITH EXISTING RTU-1 BACK TO CURB. RELOCATE THERMOSTAT AS SHOWN.



1
M-1

VIDEO PRODUCTION ROOF PLAN

SCALE: 1/4" = 1'-0"



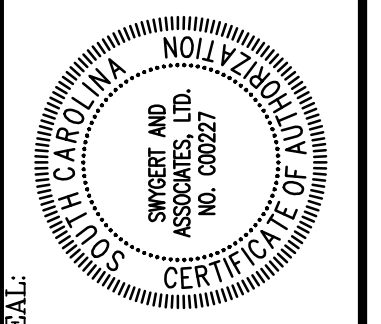
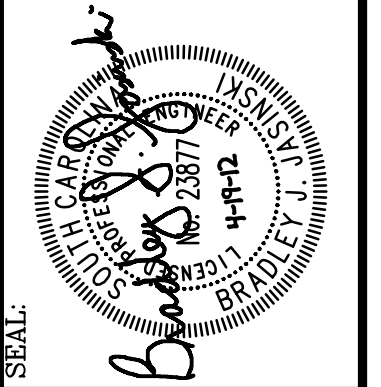
2
M-1

VIDEO PRODUCTION FLOOR PLAN

SCALE: 1/4" = 1'-0"

NOTE:
COORDINATE EXACT PLACEMENT
OF CEILING GRILLES AND DIFFUSERS
WITH LIGHTS AND OTHER CEILING
MOUNTED DEVICES.

**CAMPUS PLANNING
AND CONSTRUCTION**
COLUMBIA, SC 29208



BUILDING:	DRAWING:	DATE:	DRAWN BY:	CHECKED BY:	ORIG. BY:
210	12145-M1	19APR12	BJJ	BJJ	
PROJECT TITLE:	DESCRIPTION:	DATE:	DATE:	DATE:	DATE:
VIDEO PRODUCTION WILLIAMS-BRICE STADIUM					

University of South Carolina

SHEET:
M-1
OF
SHEET IN SET:
OF

Swygart & Associates
CONSULTING ENGINEERS

85A Swygart & Assoc., Ltd. Telephone: (803) 781-9300
Post Office Box 11684 Fax: (803) 781-9300
Columbia, S.C. 29211 mol@swygart-associates.com

SPECIFICATIONS

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2009 INTERNATIONAL MECHANICAL CODE, SMACNA, AND ASHRAE STANDARDS. ALL LOCAL CODES OR REQUIREMENTS STILL APPLY.
- VISIT SITE PRIOR TO BIDDING. THIS CONTRACTOR SHALL DETERMINE DIFFICULTY OF INSTALLATION AND REFLECT THIS IN HIS BIDDING. THIS CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND LOCATIONS IN THE FIELD.
- ALL PIPING AND DUCTWORK LOCATIONS SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE.
- ALL PIPING AND DUCTWORK INSULATION SHALL BE RUN CONTINUOUSLY THROUGH FLOORS, ROOFS AND PARTITIONS.
- ALL PIPING IS SHOWN DIAGRAMMATIC. HOWEVER, THIS CONTRACTOR SHALL PROVIDE ALL REQUIRED FITTINGS, PIPING AND INSULATION FOR ALL OFFSETS AND/OR CHANGES IN ELEVATION.
- ALL DUCTWORK SPECIFIED TO BE LINED SHALL BE INCREASED IN SIZE TO ALLOW FOR LINER.
- PROVIDE FOR ACCESS TO ALL EQUIPMENT REQUIRING CLEANING OR ADJUSTMENT.
- THIS CONTRACTOR SHALL PROVIDE ALL ITEMS OF MISCELLANEOUS STEEL AS REQUIRED FOR INSTALLATION OF ALL MECHANICAL ITEMS.
- LOCATE AIR SPACE CONTROL INSTRUMENTS 4'-0" ABOVE FINISHED FLOOR TO OPERABLE PORTION OF DEVICE. ALIGN THERMOSTATS WITH ADJACENT WALL SWITCHES.
- INSTRUMENT TEST HOLES SHALL BE LOCATED IN EACH SUPPLY DUCT OR ZONE DUCT, IN EACH RETURN AIR DUCT AND EACH OUTSIDE AIR DUCT.
- CORRECT SETTINGS ON ALL BALANCING FITTINGS SHALL BE PERMANENTLY MARKED. PROVIDE ORANGE FLAGGING RIBBON ON EACH DAMPER HANDLE FOR EASY IDENTIFICATION.
- ITEMS REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED PROPERLY.
- THE HVAC SYSTEMS SHALL NOT BE OPERATED DURING HEAVY CONSTRUCTION OPERATIONS INCLUDING MASONRY, GYPSUM BOARD SANDING, HEAVY CLEANUP ACTIVITIES, OR OTHER ACTIVITIES THAT CREATE AIRBORNE PARTICLES OR DEBRIS. IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO PROVIDE TEMPORARY FILTERS AS REQUIRED TO PROTECT SYSTEMS DURING CONSTRUCTION PRIOR TO FINAL ACCEPTANCE.
- ALL RECTANGULAR DUCT SHALL BE TYPE G-60 GALVANIZED SHEET METAL. SEALED WITH LOW PRESSURE DUCT MASTIC. ROUND DUCTS SHALL BE GALVANIZED SHEET METAL SEALED WITH LOW PRESSURE DUCT MASTIC. LOCKING QUADRANT BALANCING DAMPERS SHALL BE INSTALLED IN EACH BRANCH TAKEOFF AT THE MAIN TRUNK DUCT. ACOUSTICAL FLEXIBLE DUCT SHALL NOT EXCEED 8' IN LENGTH AND SHALL BE FLEXMASTER TYPE GM.
- ALL SUPPLY AND RETURN DUCTS INCLUDING LINED DUCTS SHALL BE INSULATED WITH 2" THICK, 3/4# DENSITY DUCT WRAP. DUCT WRAP SHALL BE SEALED WITH FIBERGLASS REINFORCING MESH, STAPLES AND MASTIC AT THE JOINTS. THE USE OF SELF-ADHESIVE TAPES ON INSULATION JOINTS IS NOT ACCEPTABLE.
- WHERE INDICATED RETURN AND SUPPLY DUCTS SHALL BE LINED WITH 1" THICK, 1 1/2# DENSITY DUCT LINER FOR SOUND ATTENUATION. DUCT LINER SHALL BE TREATED WITH A BIOCIDIC COATING TO PREVENT MICROBIAL GROWTH. DUCT LINER SHALL BE ADHERED TO THE DUCT WITH DUCT LINER GLUE AND WELDED PINS AT 12" MAXIMUM SPACING.
- INSTALL ALL ACR COPPER TUBING PER MANUFACTURER'S SPECIFICATIONS. INSULATE COPPER TUBING WITH 1" THICK ARMAFLEX INSULATION. OPENINGS THROUGH EXISTING MASONRY WALLS AND FLOORS SHALL BE CORE DRILLED.
- CONDENSATE DRAINS SHALL BE TYPE L COPPER AND SHALL BE INSULATED WITH 1/2" ARMAFLEX.
- CONTROL WIRING SHALL BE RUN IN EMT CONDUIT AND SHALL BE COLOR CODED 18 GAUGE SOLID WIRE, IN A PROTECTIVE COVER. CONTROL WIRING SHALL BE ROUTED CONCEALED WITHIN WALLS.
- SUBMIT ALL EQUIPMENT AND PRODUCTS PROPOSED TO BE USED FOR THIS PROJECT PRIOR TO ORDERING. SUBMIT FOUR COPIES OF DATA SHEETS TO THE ENGINEER, BOUND IN A SINGLE VOLUME FOR APPROVAL.
- SUBMIT A CERTIFIED ABB OR NEBB TEST AND BALANCE REPORT AT PROJECT COMPLETION PRIOR TO FINAL ACCEPTANCE. BALANCE FAN AIR VOLUMES TO WITHIN 5% OF DESIGN AND DIFFUSER AIR VOLUMES TO WITHIN 10% OF DESIGN.
- ALL EQUIPMENT, PRODUCTS AND WORK SHALL BE GUARANTEED TO BE FREE OF DEFECTS IN MANUFACTURE AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION. ALL REPAIRS WILL BE MADE AT NO COST TO THE OWNER.

COMPUTER ROOM AC SCHEDULE

TAG	LIEBERT MODEL CRAC	LIEBERT MODEL CRC	COOLING CAP. MBH @ 72/60/100 TOTAL/SENSIBLE	ELECTRIC REHEAT KW	AIRFLOW CFM	ESP IN.W.G.	INDOOR FAN H.P.	HUMID. LBS./HR.	REMARKS
CRAC-1-1/CRC-1-1	VS042ADC	TCDV251-Y	130.0/116.0	10	6600	0.4	5	11	1,2,3,4,5,6,7,8,9,10,11
1. PROVIDE UPFLOW SUPPLY AIR, 4" MERV 8 FILTERS, NEMA PREMIUM EFFICIENCY INDOOR BLOWER MOTOR, AUTOMATIC BELT-TENSIONING SYSTEM, 3 STAGE TYPE 304 STAINLESS STEEL ELECTRIC REHEAT, STAINLESS STEEL DRAIN PAN, FACTORY INSTALLED DUAL FLOAT CONDENSATE PUMP WITH UNIT ALARM INDICATION AND UNIT SHUTDOWN UPON HIGH WATER LEVEL, NON-LOCKING DISCONNECT SWITCH ON INDOOR UNIT, 12" FLOORSTAND, AND INFRARED HUMIDIFIER WITH AUTOMATIC FLUSH CYCLE. 2. PROVIDE DUAL REFRIGERANT CIRCUITS WITH LIQUID LINE FILTER DRYERS, REFRIGERANT SIGHT GLASSES, EXPANSION VALVES, AND LIQUID LINE SOLENOID VALVES. 3. PROVIDE TWO (2) INDEPENDENT DIGITAL SCROLL COMPRESSORS. 4. PROVIDE SMOKE SENSOR WITH UNIT ALARM, SHUTDOWN AND SUPERVISION CONTACTS. 5. PROVIDE WITH ZONE LEAK DETECTION SENSOR WIRED TO SHUT DOWN UNIT IN CASE OF CONDENSATE OVERFLOW. 6. PROVIDE WITH LIEBERT ICOM MICROPROCESSOR CONTROL, WITH LARGE GRAPHIC DISPLAY. 7. PROVIDE WITH 36" HIGH NON-GRILLE DISCHARGE PLENUM FOR FULLY DUCTED SUPPLY. 8. PROVIDE WITH INTELLISLOT WEB CARD FOR SNMP AND WEB-MANAGEMENT COMMUNICATION CAPABILITIES. 9. PROVIDE CONDENSER WITH VARIABLE SPEED DRIVE FOR OPERATION TO -20°F, SURGE PROTECTION DEVICE, FUSE BLOCK, AND DISCONNECT SWITCH. 10. VOLTAGE SHALL BE 208/3PH. 11. FOR INFORMATIONAL PURPOSES ONLY, THIS EQUIPMENT IS FURNISHED BY THE OWNER FOR INSTALLATION BY THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING AND UNLOADING EQUIPMENT ON SITE. THIS CONTRACTOR SHALL PROVIDE A ONE (1) YEAR LABOR WARRANTY ON EQUIPMENT AND INSTALLATION, FIVE (5) YEAR COMPRESSOR AND ONE (1) YEAR PARTS WARRANTY IS PROVIDED BY EQUIPMENT MANUFACTURER.									

AIR DISTRIBUTION SCHEDULE

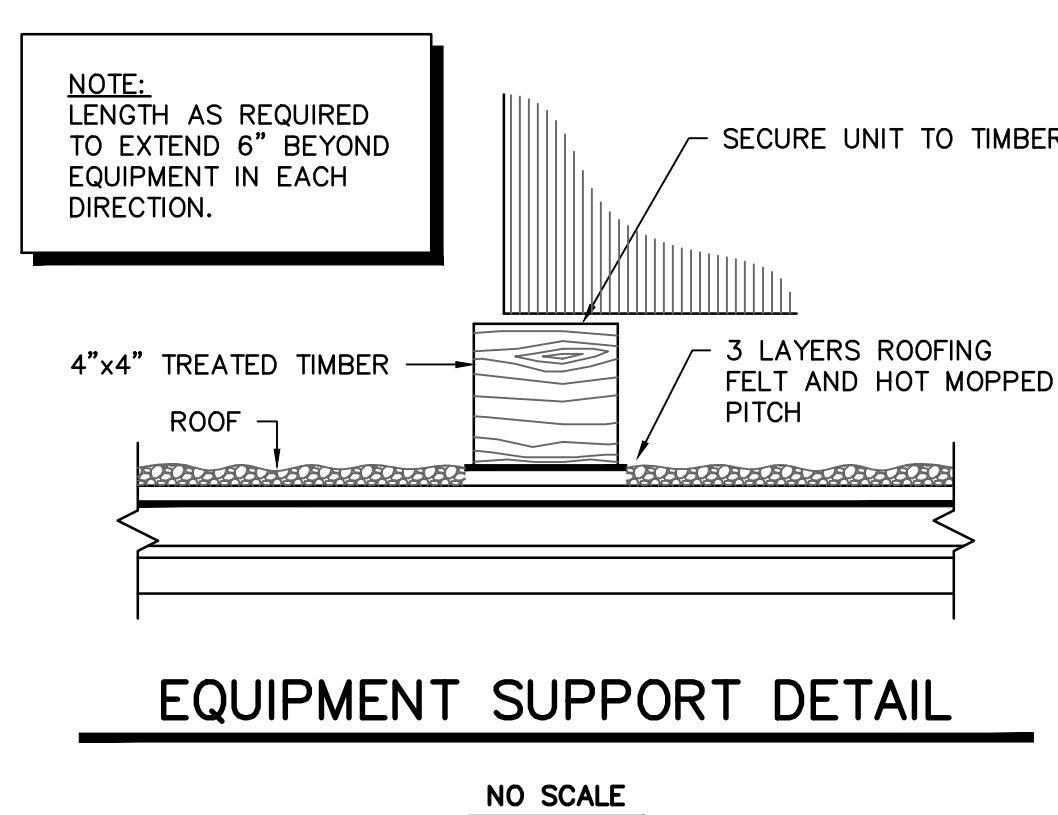
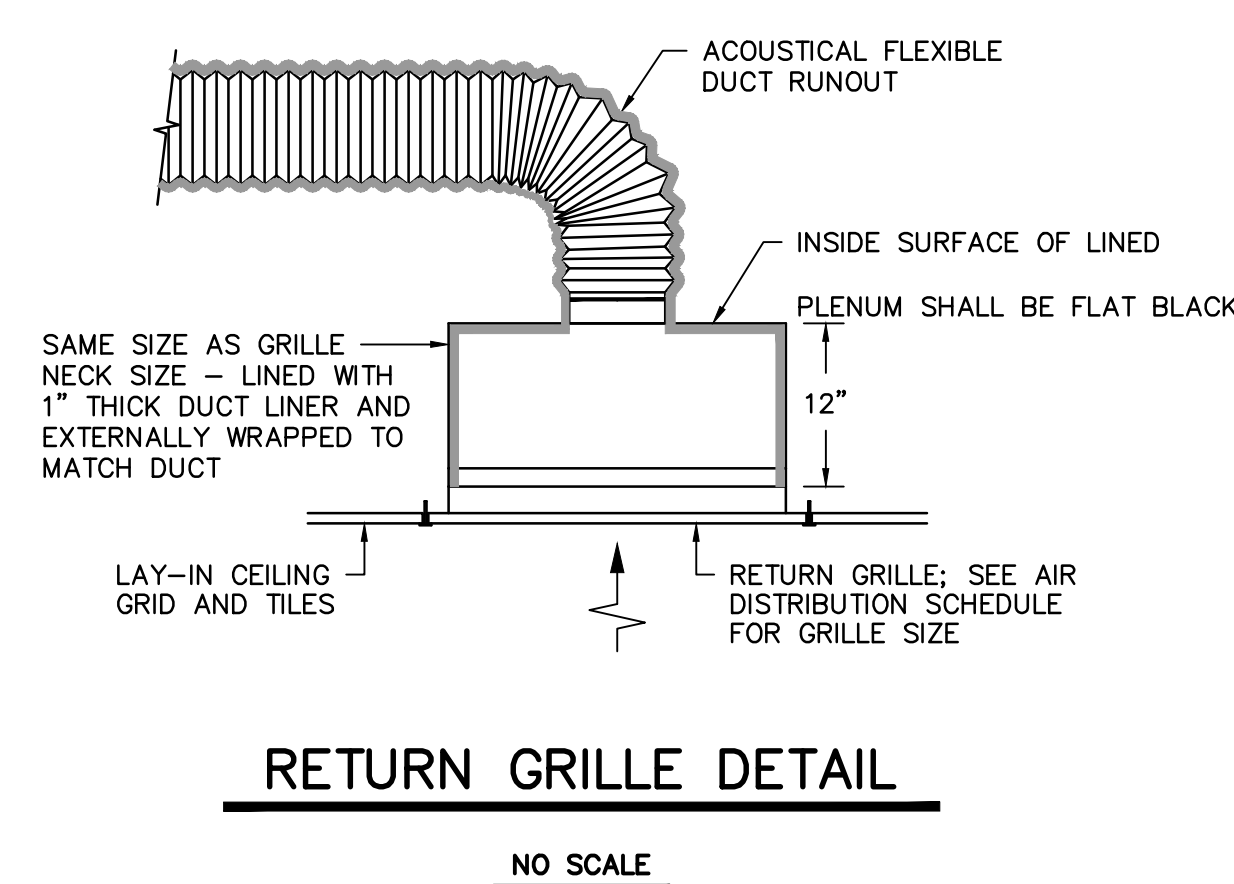
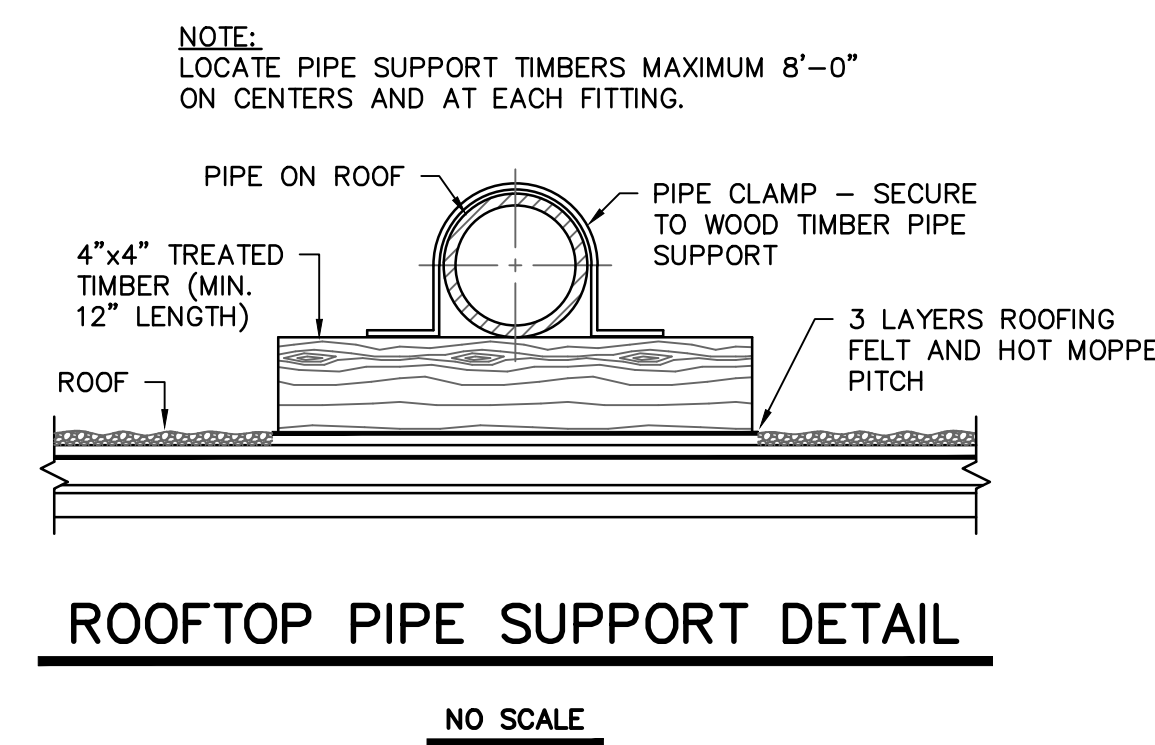
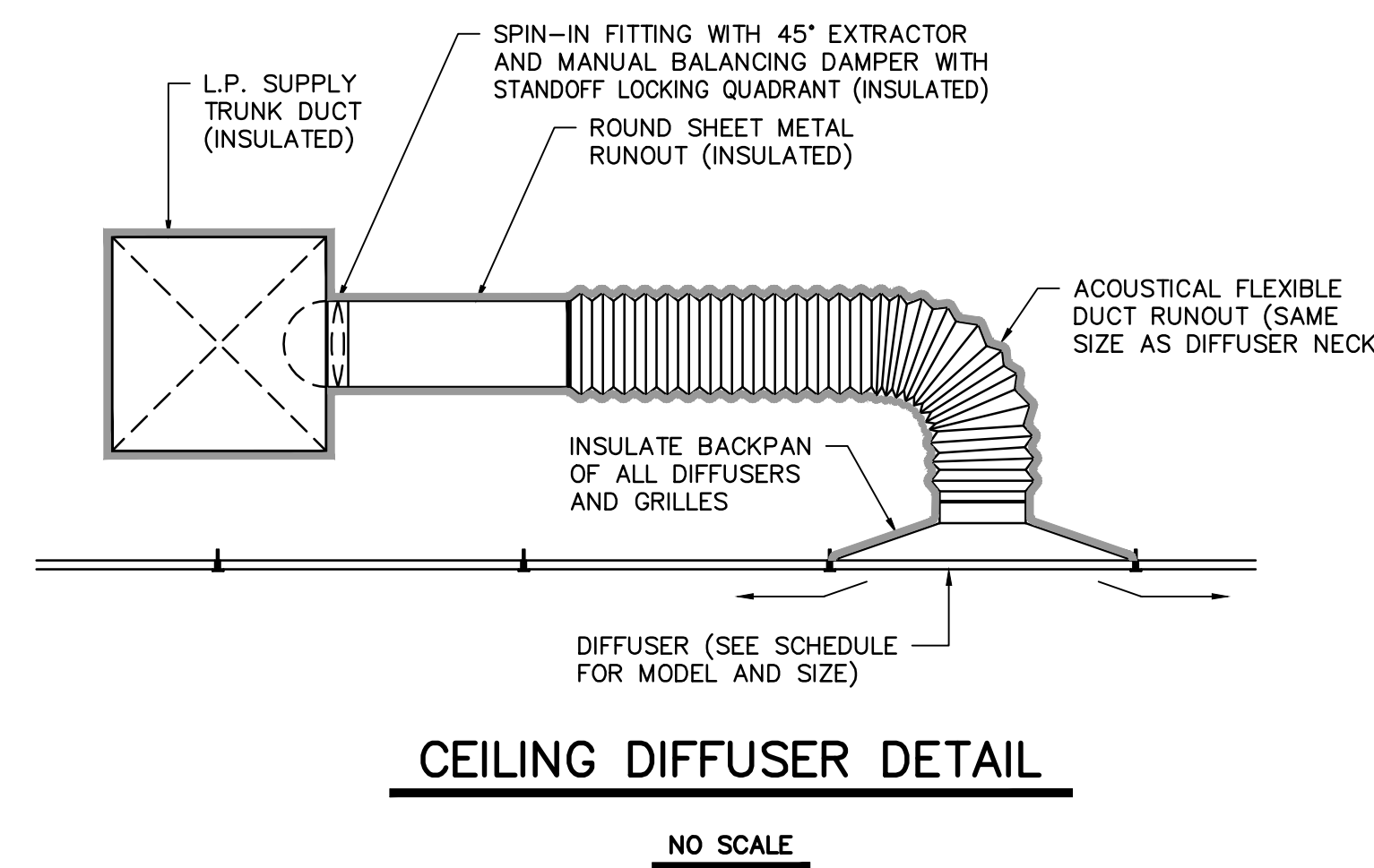
TAG	DESCRIPTION	MANUFACTURER	MODEL	FRAME	CFM	NECK SIZE	FACE SIZE	MAX NC	REMARKS
(A)	NON-DIRECTIONAL SUPPLY	PRICE	APDDR	LAY-IN	0-1000	22"x22"	24"x24"	15	1,2,4
(B)	SQ. CONE SUPPLY	PRICE	ASCD	LAY-IN	351-500	12"x8"	24"x24"	15	1,2
(C)	SQ. CONE SUPPLY	PRICE	ASCD	LAY-IN	550	14"x8"	24"x24"	15	1,2
(D)	PERFORATED RETURN	PRICE	APDDR	LAY-IN	0-1000	22"x22"	24"x24"	15	1,2,3
1. PROVIDE WITH STANDARD WHITE FINISH. 2. PROVIDE ALUMINUM CONSTRUCTION. 3. PROVIDE 12" HIGH SHEET METAL PLENUM FULL SIZE OF GRILLE NECK AND LINED WITH 1" ACOUSTICAL DUCT LINER. 4. PROVIDE 4" HIGH SHEET METAL PLENUM FULL SIZE OF GRILLE NECK AND EXTERNALLY INSULATED TO MATCH DUCT.									

SOUND ATTENUATOR SCHEDULE

TAG	RUSKIN MODEL	SIZE (N.) WxHxL	CFM	PRESSURE LOSS AT LISTED CFM IN.W.G.	OCTAVE BAND								REMARKS
					1	2	3	4	5	6	7	8	
SA-1	SLF-120	30x20x120	2,000	0.17	11	29	44	65	78	63	41	24	1,2,3
1. SOUND ATTENUATOR SHALL BE EXTERNALLY WRAPPED WITH ACOUSTICAL INSULATION TO MATCH DUCT. SEE SPECIFICATIONS. 2. INSERTION LOSS IS FOR ZERO FLOW CONDITION. 3. PROVIDE WITH 10 GA. METAL CABINET CONSTRUCTION.													

DUCTLESS SPLIT SYSTEM A/C SCHEDULE

TAG	MITSUBISHI COND. UNIT/DAHU	COOLING CAP. MBH @ 80/67/95	AIRFLOW CFM	SEER	REMARKS
SAC-1/DAHU-1	PUY-A42NH4/PLA-A42BA4	42.0	1090	14.4	1,2
1. PROVIDE SINGLE POINT POWER CONNECTION AT CONDENSING UNIT, LOW AMBIENT COOLING TO OF, THERMAL EXPANSION VALVE, BUILT-IN CONDENSATE PUMP, AND HARD WIRED WALL MOUNTED THERMOSTAT. 2. FOR INFORMATIONAL PURPOSES ONLY, THIS EQUIPMENT IS FURNISHED BY THE OWNER FOR INSTALLATION BY THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR RECEIVING AND UNLOADING EQUIPMENT ON SITE. THIS CONTRACTOR SHALL PROVIDE A ONE (1) YEAR LABOR WARRANTY ON EQUIPMENT AND INSTALLATION, SEVEN (7) YEAR COMPRESSOR AND FIVE (5) YEAR PARTS WARRANTY IS PROVIDED BY EQUIPMENT MANUFACTURER.					



LEGEND	
SYMBOL	DESCRIPTION
← R →	REFRIGERANT LINES
← D →	DRAIN LINE
← O →	PIPE TURNS TO, AWAY
← I →	CLEANOUT (ABOVE CEILING)
(A)100	TYPE "A" DIFFUSER, 100 CFM
(T)	THERMOSTAT
(R)	RECTANGULAR SUPPLY DUCTWORK
(E)	RETURN, EXHAUST, FRESH AIR DUCTWORK
48x24	48"x24" RECTANGULAR DUCT
(C)	CONNECTION POINT OF NEW TO EXISTING