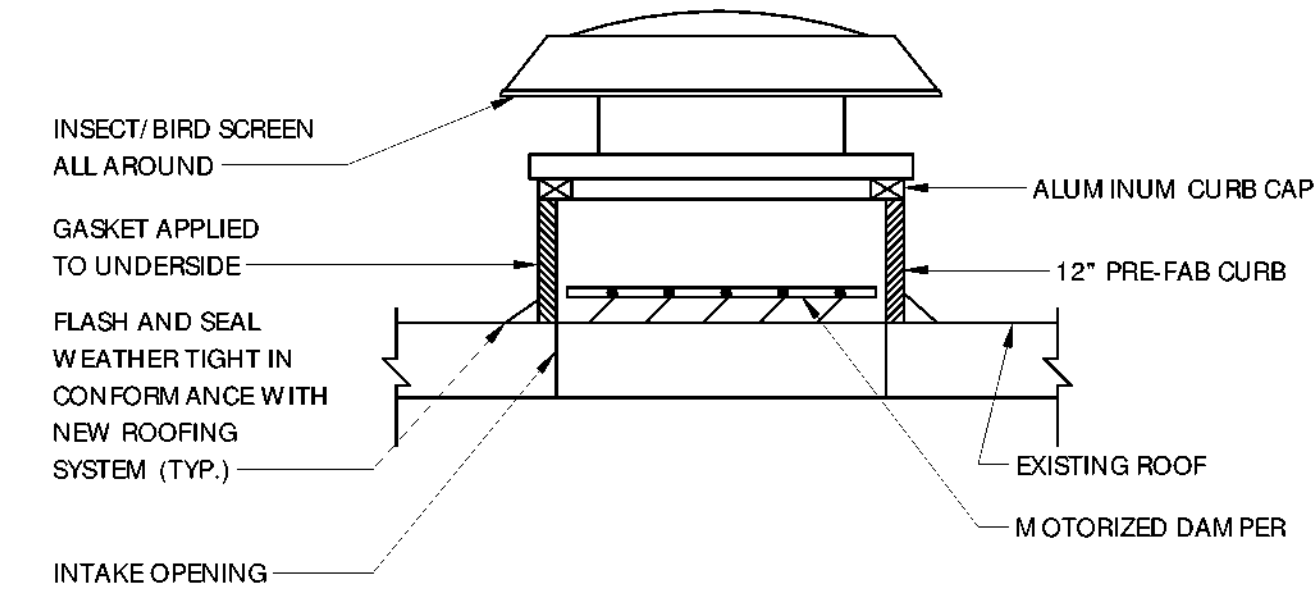


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GENERAL NOTES:

- DRAWINGS ARE DIAGRAM MATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THIS TRADE. IT IS INTENDED THAT ALL COMPONENTS AND MATERIALS REQUIRED TO MAKE THE SYSTEMS COMPLETE, TESTED AND OPERATIONAL BE INSTALLED.
- CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS BEFORE DEMOLITION AND CONSTRUCTION.
- ALL MATERIALS, EQUIPMENT, METHODS OF INSTALLATION, REMOVALS AND DISPOSAL SHALL BE IN ACCORDANCE WITH THE STANDARDS, REGULATIONS, CODES, ORDINANCES, AND LAWS OF AUTHORITIES THAT HAVE LAWFUL JURISDICTION.
- COMPLETELY COORDINATE WORK OF THIS TRADE WITH WORK OF OTHER TRADES AND OWNERS WORK.
- PROTECT ALL EXISTING BUILDING ELEMENTS AND SITE ELEMENTS TO REMAIN FROM ANY DAMAGE. CONTRACTOR SHALL RESTORE ALL EXISTING CONDITIONS AFFECTED BY DEMOLITION AND CONSTRUCTION TO ORIGINAL OR BETTER CONDITION.
- WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER AND SHALL PRESENT NEAT, RECTILINEAR APPEARANCE WHEN COMPLETED. MAINTAIN MAXIMUM HEADROOM AT ALL TIMES.
- MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. MAINTAIN MANUFACTURER'S EQUIPMENT CLEARANCES.
- ALL EQUIPMENT PIPING, WIRING AND INSULATION ETC. INSTALLED IN HVAC AIR PLENUM SPACES SHALL MEET CODE REQUIREMENTS FOR SMOKE AND COMBUSTIBILITY.
- DO NOT SUPPORT EQUIPMENT FROM SUSPENDED CEILINGS. ALL SUPPORT SHALL COME FROM BUILDING STRUCTURE. SUPPORTS SHALL BE SELECTED AND INSTALLED TO PROVIDE A VIBRATION FREE INSTALLATION.
- DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST ISSUES OF SMACNA STANDARDS.
- PROVIDE PROPER ACCESS TO MATERIALS AND EQUIPMENT THAT REQUIRE INSPECTION, REPLACEMENT, REPAIR OR SERVICE SUCH AS COILS, DAMPERS, HEATERS, VALVES, ETC. IF PROPER ACCESS CANNOT BE PROVIDED, CONFERENCE WITH THE ENGINEER AS TO THE BEST METHOD OF APPROACH TO MINIMIZE THE EFFECT OF THE REDUCED ACCESS WHICH MAY RESULT.
- RELOCATE EXISTING DUCTING, PIPING, CONDUIT AND OTHER INTERFERENCES TO INSTALL NEW EQUIPMENT AND MATERIALS. OFFSETS IN PIPING AND DUCTS, DIVIDED DUCTS AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO OWNER.
- THOROUGHLY CLEAN ALL NEW DUCTWORK AFTER INSTALLATION.
- NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO ALL DRAWINGS IN THIS TRADE.
- ALL WORK SHOWN IS TO BE COMPLETED BY THIS TRADE UNLESS SPECIFICALLY INDICATED OTHERWISE.
- FIRE STOP ALL NEW AND EXISTING SLEEVES THROUGH CONCRETE FLOORS AND FIRE RATED WALLS OR PARTITIONS WITH UL RATED ASSEMBLIES WITH EQUAL FIRE RATING.
- CONTRACTOR IS RESPONSIBLE FOR ALL OWNER COORDINATION AND PROCEDURES RELATED TO ISOLATING, SHUTTING DOWN, DRAINING, FILLING AND RESTARTING SYSTEMS INCLUDING THOSE REQUIRED FOR RELOCATIONS, TO ALLOW FOR COMPLETION OF ALL DEMOLITION AND NEW WORK. INTERRUPTIONS TO EXISTING SERVICES AND SYSTEMS SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER. INCLUDE ALL PREMIUM TIME ASSOCIATED WITH INTERRUPTIONS. ALL SYSTEM INTERRUPTIONS SHALL BE SCHEDULED WITH OWNER AND COORDINATED WITH OTHER TRADES. CONTRACTOR SHALL FURNISH ALL FLUIDS REQUIRED, INCLUDING GLYCOL FOR FILLING NEW SYSTEMS AND REFILLING EXISTING SYSTEMS.



GRAVITY INTAKE DETAIL

SCALE: 3/4" = 1'-0"

ABBREVIATIONS:

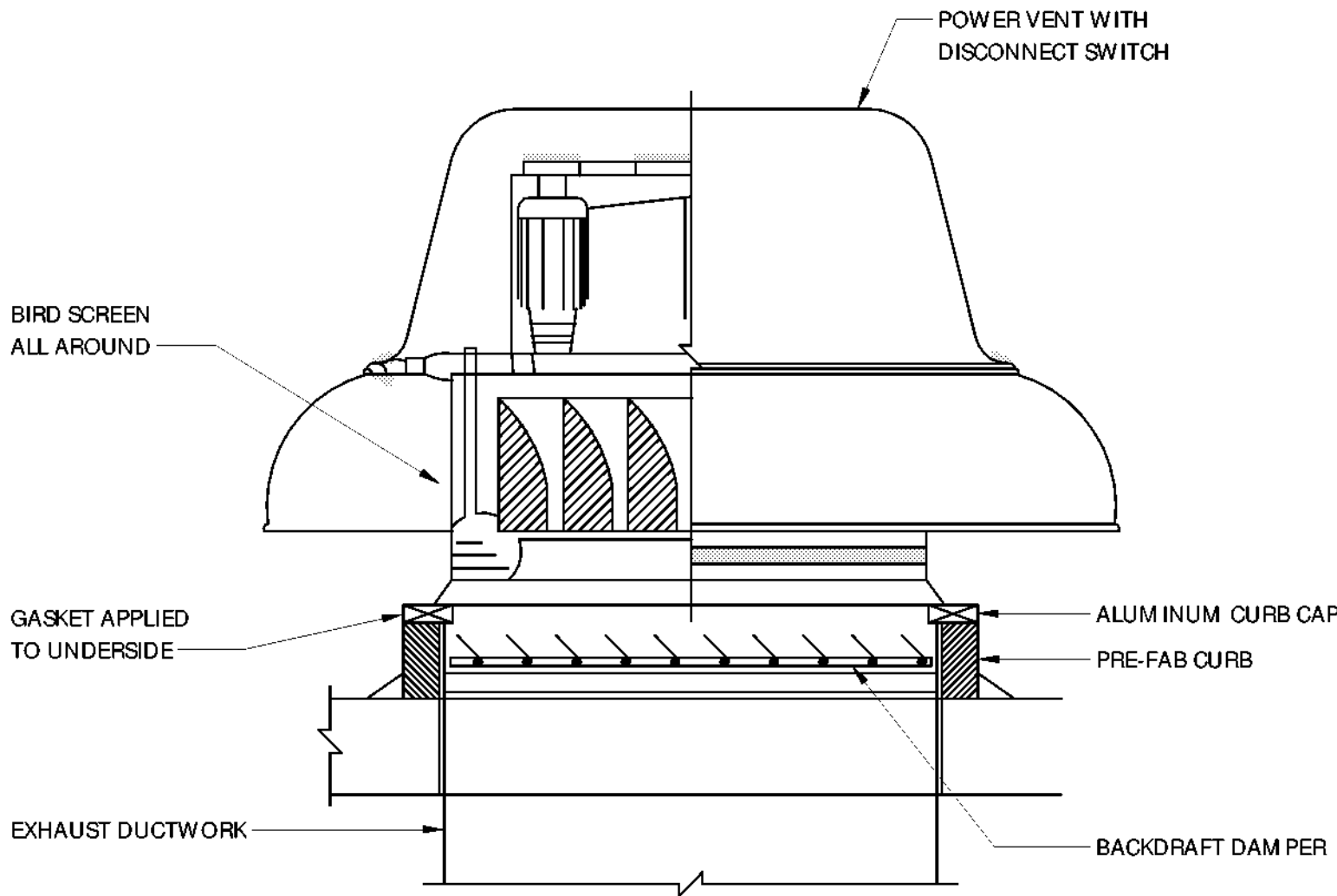
∠ - ANGLE  
AAD - AUTOMATIC AIR DAMPER  
ACT - ACOUSTICAL CEILING TILE  
AFF - ABOVE FINISHED FLOOR  
ALUM - ALUMINUM  
BLDG - BUILDING  
BSMT - BASEMENT  
BOT - BOTTOM  
BUR - BUILT UP ROOF  
CB - CATCH BASIN  
C/C - CENTER TO CENTER  
CCTV - CLOSED CIRCUIT TELEVISION  
CFM - CUBIC FEET PER MINUTE  
CJ - CONTROL JOINT  
CL - CENTER LINE  
CLG - CEILING  
CLR - CLEAR  
CMU - CONCRETE MASONRY UNITS  
COL - COLUMN  
CONC - CONCRETE  
CONST - CONSTRUCTION  
CONT - CONTINUOUS  
CPP - CORRUGATED POLYETHYLENE PIPE  
CPT - CARPET  
CT - CERAMIC TILE  
DEMO - DEMOLISH, DEMOLITION  
DN - DOWN  
DS - DOWNSPOUT  
DTL - DETAIL  
DWG - DRAWING  
E.F. - EACH FACE  
E.W. - EACH WAY  
EA - EACH  
EC - ELECTRICAL CONTRACTOR  
ELEC - ELECTRICAL  
ELEV - ELEVATION  
EMBED - EMBEDMENT  
EPS - EXPANDED POLYSTYRENE  
EQUIP - EQUIPMENT  
E.S.P. - EXTERNAL STATIC PRESSURE  
EW - EACH WAY  
EXP - EXPOSED  
EXP ANCHOR - EXPANSION ANCHOR  
EXT - EXTERIOR  
EX, EXIST - EXISTING  
FIN FLR - FINISHED FLOOR  
FLA - FULL LOAD AMPS  
FND - FOUNDATION  
FPM - FEET PER MINUTE  
FTG - FOOTING  
GA - GAUGE  
GALV - GALVANIZED  
GC - GENERAL CONTRACTOR  
HBD - HARDBOARD  
HC - HANDICAP

ABBREVIATIONS (CONT.):

HM - HOLLOW METAL  
HP - HORSE POWER  
HZ - HERTZ  
INSUL - INSULATION  
IGU - INSULATED GLASS UNIT  
INV - INVERT  
JT - JOINT  
LAM - LAMINATE  
MANUF - MANUFACTURER  
MAS - MASONRY  
MAX - MAXIMUM  
M/C - MECHANICAL CONTRACTOR  
MIN - MINIMUM  
MR - MOISTURE RESISTANT  
MTL - METAL  
MO - MASONRY OPENING  
NAT - NATURAL  
NIC - NOT IN CONTRACT  
NTS - NOT TO SCALE  
O/C - ON CENTER  
OD - OUTSIDE DIAMETER  
PL - PLATE  
PERF - PERFORATED  
PLAS - PLASTIC  
PLYWD - PLYWOOD  
PNT - PAINT  
PT - PRESSURE TREATED  
PPT - PRESSURE PRESERVATIVE TREATED  
PVM - PAVEMENT  
QT - QUARRY TILE  
R - RISER  
RD - ROOF DRAIN  
RAD - RADIUS  
REQ'D - REQUIRED  
RO - ROUGH OPENING  
SC - SOLID CORE  
SAN - SANITARY  
SHT - SHEET  
SIM - SIMILAR  
SQ - SQUARE  
SS - STAINLESS STEEL  
STL - STEEL  
SUS - SUSPENDED  
SV - SHEET VINYL  
T - TREAD  
T/ - TOP OF  
T&B - TOP AND BOTTOM  
TEMP - TEMPERED  
TYP - TYPICAL  
VCT - VINYL COMPOSITION TILE  
VIF - VERIFY IN FIELD  
W.G. - WATER GAUGE

LEGEND

- SLOPE DN IN DIRECTION OF ARROW  
— BREAK  
///// PIPING/EQUIPMENT TO BE REMOVED  
○ LIMIT OF REMOVAL  
● CONNECTION POINT TO EXISTING  
○ TEE RISE  
— TEE DROP  
○ PIPE RISE  
— PIPE DROP  
→ DIRECTION OF FLOW  
C CAP  
≡ UNION  
◁ CONCENTRIC REDUCER  
— FLANGED CONNECTION  
F FLEXIBLE CONNECTION  
B BUTTERFLY VALVE  
P PRESSURE GAUGE  
T THERMOMETER  
M MANUAL AIR VENT  
A AUTOMATIC AIR VENT  
S STRAINER  
Z SWING CHECK VALVE  
V BALL VALVE  
G GATE VALVE  
G GLOBE VALVE  
T TRIPLE DUTY VALVE  
B BALANCE VALVE  
B BALL VALVE W/ HOSE CONNECTION, CAP AND CHAIN  
P PRESSURE REDUCING VALVE  
S SAFETY RELIEF VALVE  
T TEMPERATURE SENSOR  
P PUMP  
C CONTROL VALVE, 3-WAY, MODULATING



EXHAUST FAN DETAIL

SCALE: 1 1/2" = 1'-0"

LEGEND

- VOLUME DAMPER  
→ FIRE DAMPER  
S SUPPLY DUCT SECTION UP  
S SUPPLY DUCT SECTION DOWN  
R/ EXH DUCT SECTION UP  
R/ EXH DUCT SECTION DOWN  
45° BRANCH DUCT CONNECTION  
NEW SUPPLY DIFFUSER, REGISTER OR GRILLE (WITH CFM)  
NEW RETURN/EXHAUST REGISTER OR GRILLE (WITH CFM)  
T THERMOSTAT (ARROW INDICATES DEVICE)  
—HWS— HOT WATER SUPPLY PIPING  
—HWR— HOT WATER RETURN PIPING  
—CWS— CHILLED WATER SUPPLY PIPING  
—CWR— CHILLED WATER RETURN PIPING

CONVECTOR UNIT (CU) SCHEDULE								
TAG	CAPACITY (BTU)	HOT WATER ENTERING TEMP (°F)	HOT WATER LEAVING TEMP (°F)	UNIT LENGTH (IN)	UNIT HEIGHT (IN)	UNIT DEPTH (IN)	FLOW RATE (GPM)	BASIS OF DESIGN
CU-1 TO CU-5	2,795	150	139	36.0	26.0	4.0	0.5	STERLING MODEL W-A

NOTES:

- UNIT SHALL BE COMPLETELY EXPOSED WALL HUNG TYPE WITH OPEN BOTTOM.
- PROVIDE THERMOSTATIC RADIATOR VALVE WITH TAMPER RESISTANT VALVE MOUNTED DIAL AND REMOTE SENSOR.

WALL HEATER (UH) SCHEDULE							
TAG	AIR FLOW (CFM)	CAP. (BTUH)	NO. OF FANS	ELEC. VOLTS/PHASE	BASIS OF DESIGN	NOTES	
UH-1	160	5125	1	120 1	REZNOR EHC 1	1	

NOTES:

- PROVIDE UNIT MOUNTED TAMPERPROOF THERMOSTAT AND DISCONNECT SWITCH.

EXHAUST FAN SCHEDULE										
TAG	AREA SERVED	LOCATION	CFM	E.S.P. (IN W.G.)	DRIVE	RPM	MOTOR			BASIS OF DESIGN
							HP	VOLTS	PHASE	NOTES
EF-1	TOILET ROOMS	MUSEUM ADDITION	280	0.7	DIRECT	1670	1/8	115	1	COOK ACE-D SIZE 90 2,3,4,5
EF-2	TOILET ROOM	CARTAKERS COTTAGE	70	0.3	DIRECT	900	1/25	115	1	COOK GN-146 1,2

NOTES:

- PROVIDE MOUNTING HARDWARE, VIBRATION ISOLATION KIT, BRICK VENT (COOK BY2) AND BACKDRAFT DAMPER.
- PROVIDE MANUAL STARTER AND DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION.
- PROVIDE BACKDRAFT DAMPER, FAN SPEED CONTROLLER (120V), AND ROOF CURB (COOK RCG 16-13.5H) WITH DAMPER TRAY.
- UNIT TO BE PROVIDED WITH BAKED POLYESTER POWDER COATING ELECTROSTATICALLY APPLIED (COLOR-ONYX BLACK).
- UNIT TO BE INTEGRATED INTO THE EXISTING BUILDING ENERGY MANAGEMENT SYSTEM.

GRAVITY VENTILATOR (GV) SCHEDULE						
TAG	LOCATION	DESCRIPTION	CFM	NOMINAL SIZE DIA (IN)	BASIS OF DESIGN	ASSOCIATED EQUIPMENT
GV-1	ROOF	ROOFTOP GRAVITY INTAKE VENTILATOR	250	8	COOK MODEL 8PR	FC-7

NOTES:

- PROVIDE 1/2" ALUMINUM INSECT/BIRD SCREEN & BAKED POLYESTER POWDER COATING (COLOR-ONYX BLACK).
- PROVIDE ROOF CURB WITH DAMPER TRAY (COOK RCG 16-13.5H), AND MOTORIZED INTAKE DAMPER (115 V).
- INTERLOCK DAMPER WITH ASSOCIATED EQUIPMENT & INTEGRATE INTO EXISTING BUILDING ENERGY MANAGEMENT SYSTEM.

AIR COOLED CONDENSING UNIT (ACCU) SCHEDULE										
TAG	MIN AMBIENT TEMP (°F)	CONDENSER AIR TEMP (°F)	SATURATED SUCTION TEMP (°F)	SATURATED COND. TEMP (°F)	NOM. COOLING CAPACITY (TONS)	UNIT EER (SEER)	REFRIG. TYPE	VOLTS	MCA	ASSOCIATED EQUIPMENT
ACCU-1	-10	95	45	115	1.0	12.0	R410A	208	11.0	AC-1 MITSUBISHI MODEL PUY-A12NKA7
ACCU-2	-10	95	45	115	1.0	12.0	R410A	208	11.0	AC-2 MITSUBISHI MODEL PUY-A12NKA7

NOTES:

- UNIT SHALL BE INVERTER DUTY TYPE WITH AUTO DEFROST AND ANTI-CORROSION COIL TREATMENT.
- UNIT SHALL BE PROVIDED WITH FRONT, REAR AND SIDE WIND BAFFLES FOR LOW AMBIENT TEMPERATURE OPERATION.
- PROVIDE MITSUBISHI STANDS (MINIMUM 12" TALL) DESIGNED FOR USE WITH MITSUBISHI UNITS.

AIR CONDITIONING UNIT - INDOOR										
TAG	LOCATION	TOTAL AIRFLOW (CFM)	FAN DRIVE	REFRIGERANT (410A) COIL			VOLTS/ PHASE/ HZ	AMPS (MCA)	AMPS (MOC)	ASSOCIATED EQUIPMENT
				MAXIMUM COOLING CAP (BTU/H)	MINIMUM COOLING CAP (BTU/H)	COOLING CAPACITY (DB/°WB °F)				
AC-1	IT ROOM B6	425	DIRECT	12,000	5,800	80/67	208/1/60	1	15	ACCU-1 MITSUBISHI MODEL PKA-A12HA7
AC-2	ELEV. MAQH. B7	425	DIRECT	12,000	5,800	80/67	208/1/60	1	15	ACCU-2 MITSUBISHI MODEL PKA-A12HA7

NOTES:

- PROVIDE REMOTE CONTROLLER AND MOUNT UNIT AT 7 FEET ABOVE FINISHED FLOOR IN LOCATION SHOWN.
- UNIT SHALL BE COOLING ONLY. PROVIDE OPERATIONS AND MAINTENANCE MANUAL, AND OWNER TRAINING PER SPECIFICATIONS.
- PROVIDE UNIT-MOUNTED COMBINATION CONDENSATE PUMP/DETECTION UNIT KIT, AND DISCONNECT SWITCH. PROVIDE CONDENSATE PUMP WITH 115/1/60 POWER.

DIFFUSER AND GRILLE SCHEDULE								
TYPE	DESCRIPTION	MAX SONES	BLOW PATTERN	FACE SIZE (IN)	NECK SIZE (IN)	AIR FLOW (CFM)	BASIS OF DESIGN	NOTES
SD-1	SUPPLY DIFFUSER	16	4-WAY	24 x 24	60	0-200	TITUS TMS	1,2,3,4
SG-1	SUPPLY GRILLE	-	-	8 x 8	6 x 6	0-75	TITUS 300RL	1,2,3,4,5
SG-2	SUPPLY GRILLE	16	-	12 x 12	10 x 10	225-300	TITUS 300RL	1,2,3,4,5
SG-3	SUPPLY GRILLE	12	1-WAY	14 x 38	12 x 36	500	TITUS LL-1	1,2,3,4,6
SG-4	SUPPLY GRILLE	12	-	12 x 8	10 x 6	150-200	TITUS 300RL	1,2,3,4
EG-1	EXHAUST GRILLE	-	-	8 x 8	6 x 6	0-70	TITUS 350RL	1,2,3
RG-1	RETURN GRILLE	11	-	10 x 14	8 x 12	200-300	TITUS 350RL	1,2,4,5
RG-2	RETURN GRILLE	11	-	14 x 8	12 x 6	0-200	TITUS 350RL	1,2,4
RG-3	RETURN GRILLE	20	-	12 x 12	10 x 10	250-400	TITUS 350RL	1,2,4,5

NOTES:

- BALANCE ALL DUCT BRANCHES TO CFM VALUE SHOWN.
- REFER TO PLANS FOR QUANTITIES, AIR FLOW. ALL BRANCH DUCT CONNECTING DIFFUSER TO MAIN SHALL BE THE SAME SIZE AS THE DIFFUSER NECK.
- VERIFY MOUNTING FRAME. REFER TO REFLECTED CEILING PLAN FOR LOCATIONS AND CEILING TYPE. COORDINATE WITH OTHER CEILING MOUNTED EQUIPMENT.
- PROVIDE WITH OPPOSED BLADE DAMPER, ADJUSTABLE WITHOUT DISASSEMBLY.
- WALL MOUNTED. SEE PLAN FOR HEIGHT.
- COLOR TO MATCH EXISTING CEILING TRIM (COORDINATE WITH OWNER).

FAN COIL (FC) SCHEDULE																			
TAG	LOCATION	AIRFLOW (CFM)	OUTDOOR AIRFLOW (CFM)	HEATING COIL (100% WATER)					COOLING COIL (30% PROPYLENE GLYCOL)					MOTOR					BASIS OF DESIGN
				CAP. (MBH)	EAT/LAT (°F)	ROWS	FLOW (GPM)	EW/T/LWT (°F)	PRESS. DROP (FT)	TOTAL LOAD (MBH)	SENSIBLE LOAD (MBH)	COIL EAT (DB/°WB °F)	COIL LAT (DB/°WB °F)	EW/T/LWT (°F)	ROWS	FLOW (GPM)	PRESS. DROP (FT)	VOLTS/PHASE/ HZ	
FC-7	BASEMENT	580	250	24.2	44/81	1	2.4	160/140	6.4	19.6	14.8	83/69	60.6/59.1	44/54	4	4.1	2.47	120 1 60	JOHNSON CONTROLS FNP08

NOTES:

- PROVIDE WITH ECM MOTOR, MANUAL MOTOR STARTER AND DISCONNECT SWITCH WITH THERMAL OVERLOAD PROTECTION. LOCATE HOT WATER HEATING COIL DOWN STREAM OF CHILLED WATER COIL.
- PROVIDE COMPLETE WITH CONTROLS, THERMOSTAT, SENSORS AND LOW VOLTAGE WIRING TO INTEGRATE WITH EXISTING ENERGY MANAGEMENT CONTROLS SYSTEM.
- PROVIDE UNIT WITH MIXING BOX (REAR/BOTTOM DAMPERS), DAMPER ACTUATORS AND MERV 8 PLEATED FILTER.
- UNIT TO BE SUSPENDED FROM CEILING STRUCTURE, PROVIDE VIBRATION ISOLATION KIT.



Parks, Recreation and Historic Preservation

Governor Andrew M. Cuomo

Commissioner Erik Kulesseid

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Regional Director: Linda Cooper  
District Manager: Garrett Jobson

Project Title:

Philipse Manor Hall State Historic Site  
Construction of Elevator/Restroom  
Addition, Interior and Exterior  
Rehabilitation and Site Enhancements

Project Location:

29 Warburton Ave, Yonkers, NY, 10701

Key Plan

REVISIONS

Rev No	Description	Date

Drawn By:

RAD

Design By:

SLW

Checked By:

DGM

Approved By:

DGM

Date:

5/28/2021

Sheet Title:

SYMBOLS AND ABBREVIATIONS

Bid Documents

Project Number:

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Seal and Signature



Drawing Number:

M001

Sheet: