MECHANICAL ABBREVIATIONS

AC	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
AFMS	AIR FLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AL	ALUMINUM
ALT	ALTERNATIVE, ALTERNATE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT, ARCHITECTURAL
ATR	AIR TEMPERATURE RISE
ATV	AIR TURNING VANES
AUTO	AUTOMATIC
AI	DDC ANALOG INPUT
AO	DDC ANALOG OUTPUT
ATMOS	ATMOSPHERE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS
BDD	BACKDRAFT DAMPER
BK	BREAK (OPEN) CONTACT
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOT	BOTTOM
C	COMMON
CR	CONTROL RELAY
CD	CONDENSATE DRAIN
CAB	CABINET
CFM	CUBIC FEET PER MINUTE
CH-#	CHILLER
CHR	CHILLED WATER RETURN
CH	CHILLED WATER SUPPLY
CHP	CHILLED WATER PUMP
CL	CENTERLINE
CLG	CEILING
CO	CLEAN OUT
COTG	CLEAN OUT TO GRADE
CONC	CONCRETE
COND	CONDENSER, CONDENSATE
CPRSR	COMPRESSOR
CT	CURRENT TRANSDUCER
CV-#	CONTROL VALVE
CW	COLD WATER (DOMESTIC)
D	DEPTH, DEEP
(D)	DEMOLISH
DB	DRY BULB TEMPERATURE
DIA/ø	DIAMETER
DIFF	DIFFUSER
DWG	DRAWING
DA	DIRECT ACTING
DDC	DIRECT DIGITAL CONTROL
DI	DDC DIGITAL INPUT CONTACT
DO	DDC DIGITAL OUTPUT CONTACT
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
EA	EXHAUST AIR
EAD	EXHAUST AIR DUCT
EP	ELECTRICAL TO PNEUMATIC
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
EL	ELEVATION
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATOR
EMD	END OF MAIN DRIP
EQUIP	EQUIPMENT
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
(E)	EXISTING
EXT	EXTERIOR
EXTN	EXTENSION
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FIN FL/FF	FINISH FLOOR
FLR	FLOOR
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FEET
FT HD	FEET OF HEAD
F	FAHRENHEIT
G	GAS (NATURAL)
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
H	HOUR
HT	HEIGHT/HIGH
HWHR	HEATING HOT WATER RETURN
HWH	HEATING HOT WATER SUPPLY
HP	HORSEPOWER
HVAC	HEATING/VENTILATING/AIR CONDITIONING
HW	HOT WATER (DOMESTIC)
HOA	HAND-OFF-AUTO SWITCH
I/P	INTERFACE PANEL
IR2	RELAY #1, CONTACT #2 (PLUG IN TYPE W/ON LIGHT)
ID	INSIDE DIAMETER
IN WC	INCHES OF WATER COLUMN
INSUL	INSULATION/INSULATE
INTR	INTERIOR
INV	INVERT
KW	KILOWATT
L	LITERS
LBS	POUNDS
LG	LENGTH/LONG
LAT	LEAVING AIR TEMPERATURE
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	METERS OR MINUTES
MA	MILLIAMPS
MCC	MOTOR CONTROL CENTER
MK	MAKE (CLOSED) CONTACT
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
mm	MILLIMETERS
MTD	MOUNTED
NIC	NOT IN CONTRACT
NO/#	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
(N)	NEW
N	NEUTRAL
NG	NATURAL GAS
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
OSA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OSD	OPEN SITE DRAIN
OBD	OPPOSED BLADE DAMPER
OL'S	MOTOR STARTER OVERLOADS
PE	PNEUMATIC TO ELECTRICAL
PH	PREHEAT
PS	PRESSURE SWITCH
PT	PRESSURE TRANSMITTER
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R/RAD	RADIUS
RA	RETURN AIR
RAC	REVERSE ACTING
RG	RETURN AIR GRILLE
RD	ROOF DRAIN
REG	REGISTER
REQ'D	REQUIRED
RE:	REFERENCE
RH	REHEAT
RHC	REHEAT COIL
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
s	SECONDS
SA	SUPPLY AIR
SSD	SQUARE SUPPLY DIFFUSER
SMD	SMOKE DETECTOR
SAG	SUPPLY AIR GRILLE
SHT	SHEET
SOV	SOLENOID OPERATED VALVE
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
STD	STANDARD
TC	TEMPERATURE CONTROL
TD	TEMPERATURE DIFFERENCE
TS	TEMPERATURE SENSOR
TEMP	TEMPERATURE
TXV	THERMAL EXPANSION VALVE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VA	VALVE
VAC	VACUUM
VB	VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
W	WATTS
W/	WITH
W/O	WITHOUT
WC	WATER COLUMN
WG	WATER GAUGE

MECHANICAL CONTROL SYMBOLS

(ROOM OR UNIT#) — WALL-MOUNT THERMOSTAT

DP — DIFFERENTIAL PRESSURE SENSOR

RPC — ROOM PRESSURE CONTROLLER

MECHANICAL DUCTWORK SYMBOLS

SUPPLY DIFFUSER (ARROWS INDICATE THROW) (4-WAY SHOWN)
RETURN GRILLE
EXHAUST GRILLE
FLEX DUCT
ROUND DUCT/FLUE THRU ROOF OR FLOOR
SUPPLY DUCT THRU ROOF OR FLOOR
RETURN DUCT THRU ROOF OR FLOOR
EXHAUST DUCT THRU ROOF OR FLOOR
OUTSIDE AIR DUCT THRU ROOF OR FLOOR
BALANCE DAMPER
SIDEWALL OR DOOR GRILLE
F — FIRE DAMPER
F/S — FIRE / SMOKE DAMPER
S — SMOKE DAMPER
S — SMOKE DETECTOR (DUCT MOUNTED)

DIMENSION DESCRIPTION:
1ST FIGURE = SIDE SHOWN
2ND FIGURE = SIDE NOT SHOWN
ALL SIZES IN INCHES (TYPICAL)

20X18 — SUPPLY AIR ELBOW UP
SUPPLY AIR ELBOW DOWN
RETURN AIR ELBOW UP
RETURN AIR ELBOW DOWN
EXHAUST AIR ELBOW UP
EXHAUST AIR ELBOW DOWN
30° MAX, 36X12, 24X12 — DOUBLE SIDE TRANSITION
30° MAX, 36X12, 24X12 — SINGLE SIDE TRANSITION
ELBOW UP
ELBOW DOWN
R, DIA — ELBOW – RADIUS (R) = 1.5 X DIA
R, W — ELBOW – RADIUS (R) = 1.5 X WIDTH
DIA — 90° OR 45° ELBOW
15° MAX — SIZE TRANSITION
SQUARE TO ROUND TRANSITION
90° MITERED ELBOW
DUCT DOWN
ACOUSTICALLY-LINED DUCTWORK
DUCT — VOLUME DAMPER WITH OPPOSED BLADES.
45° TAKE-OFF
90° CONICAL TAKE-OFF
DUCT DOWN
ANGLE TAKE-OFF

AIR TERMINAL SYMBOLS

AIR FLOW CONTROL VAVLE

MECHANICAL PIPING SYMBOLS

PIPE ELBOW UP
PIPE ELBOW DOWN
PIPE TEE BRANCH UP (W/ ELBOW)
PIPE TEE BRANCH DOWN (W/ ELBOW)
CONCENTRIC REDUCER
FLOW DIRECTION INDICATOR
UNION
STRAINER
CAP
BALL VALVE
CHECK VALVE (ARROW TOWARD DIRECTION OF FREE FLOW)
CIRCUIT SETTER
GATE (SHUT-OFF) VALVE
GATE (SHUT-OFF) VALVE ANGLE
GLOBE VALVE
GLOBE VALVE, ANGLE
S — SOLENOID-OPERATED VALVE
M — 2-WAY CONTROL VALVE (ELECTRIC)
M — 3-WAY CONTROL VALVE (ELECTRIC)
ASME PRESSURE RELIEF VALVE

PIPING LEGEND

AIR — AIR	COMPRESSED AIR
CW — CW	COLD WATER
CH — CH	CHILLED WATER SUPPLY
CHR — CHR	CHILLED WATER RETURN
CLR — CLR	CHLORINE
CD — CD	CONDENSATE DRAIN
DE — DE	DEIONIZED WATER
DA — DA	DENTAL AIR
DO — DO	DENTAL OXYGEN
DN — DN	DENTAL NITROUS OXIDE
DV — DV	DENTAL VACUUM
DI — DI	DISTILLED WATER
EG — EG	ETHYLENE GLYCOL SUPPLY
EGR — EGR	ETHYLENE GLYCOL RETURN
F — F	FIRE
	NATURAL GAS
GWS — GWS	GEOTHERMAL SUPPLY
GWR — GWR	GEOTHERMAL RETURN
GWI — GWI	GEOTHERMAL INJECTION
GWE — GWE	GEOTHERMAL EMERGENCY BYPASS
HWH — HWH	HEATING WATER SUPPLY
HWHR — HWHR	HEATING WATER RETURN
HW — HW	HOT WATER SUPPLY
HWR — HWR	HOT WATER RETURN
LA — LA	LAB AIR
LO — LO	LAB OXYGEN
LV — LV	LAB VACUUM
MA — MA	MEDICAL AIR
MO — MO	MEDICAL OXYGEN
MV — MV	MEDICAL VACUUM
MN — MN	MEDICAL NITROUS OXIDE
SAN — SAN	SANITARY SEWER
SDW — SDW	STORM SEWER
HPS — HPS	HIGH PRESSURE STEAM SUPPLY
HPR — HPR	HIGH PRESSURE STEAM RETURN
MPS — MPS	MEDIUM PRESSURE STEAM SUPPLY
MPR — MPR	MEDIUM PRESSURE STEAM RETURN
LPS — LPS	LOW PRESSURE STEAM SUPPLY
LPR — LPR	LOW PRESSURE STEAM RETURN
V — V	VENT

MECHANICAL DEMOLITION SYMBOLS

EQUIPMENT TO BE DEMOLISHED
DUCT TO BE DEMOLISHED
PIPING TO BE DEMOLISHED

MECHANICAL ANNOTATION SYMBOLS

(E) / (N) — CONNECT NEW TO EXISTING SHADED SIDE IS NEW WORK
1 — KEY NOTES
1 — REVISION DELTA
2 / H4 — DETAIL NUMBER / DRAWING NUMBER WHERE DRAWN
A / H7 — SECTION LETTER / DRAWING NUMBER WHERE SHOWN
26-SF 3 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; EQUIPMENT ABBREVIATION (SUPPLY FAN); SUPPLY FAN NO. 3 IN BUILDING NO. 26; TYPICAL UNIT NO.
26-TU-1-1 — BUILDING NO. WHERE EQUIPMENT IS LOCATED; ITEM (TERMINAL UNIT SHOWN); ITEM NUMBER (TERMINAL UNIT NO. 1); SERVED BY AIR HANDLER UNIT NO. 1

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M2.5A THIRD FLOOR AIRSIDE HVAC PLAN-BASE BID
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MECHANICAL GENERAL NOTES

A. ROUTE DUCTWORK IN COORDINATION WITH OTHER TRADES. HOLD DUCTWORK AS HIGH AS POSSIBLE AND ROUTE DUCTWORK WITH IN STRUCTURE WHERE POSSIBLE.

B. UNLESS OTHERWISE NOTED SUPPLY DUCT UPSTREAM OF AFCV IS THE SAME SIZE AS THE DOWN STREAM DUCTWORK. FOR CLEARLY NOT ALL SIZES HAVE BEEN SHOWN.

C. HATCHED DUCTWORK SHALL BE STAINLESS STEEL OR PVC LINED.

D. MOUNT TEMPERATURE SENSOR AT 48" AFF COORDINATE LOCATION OF TEMPERATURE SENSORS IN LAB SPACES WITH PLUMBING CONTRACTOR.

E. DUCT SIZES INDICATED FOR CONNECTION TO EQUIPMENT MAY DIFFER FROM EXACT UNIT CONNECTION DIMENSIONS. PROVIDE ALL NECESSARY TRANSITIONS FROM DUCT SIZES LISTED TO UNIT CONNECTION.

F. TEMPERATURE SENSORS SHALL BE INSTALLED AT 48" AFF UNLESS NOTED OTHERWISE. COORDINATE JUNCTION BOX INSTALLATION WITH ELECTRICAL CONTRACTOR.

G. FIRE DAMPERS SHALL BE 1-1/2 HOUR RATED UNLESS OTHERWISE NOTED.

H. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRANSITIONS TO AVOID CONFLICT WITH OTHER DUCTWORK, PIPING, STRUCTURE, ETC. AS PART OF THIS CONTRACT. WHEREVER AVAILABLE SPACE ALLOWS, OFFSETS SHALL BE MADE WITH 45 DEGREE ELBOWS WITH TURNING VANES.

I. ALL CEILING DIFFUSERS SHALL BE PROVIDED WITH 4-WAY THROW PATTERN UNLESS OTHERWISE NOTED.

J. TRANSITION AS NECESSARY FROM DUCT SIZES INDICATED ON PLAN TO EQUIPMENT DUCT CONNECTION.

K. PIPING PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRESTOPPED IN ACCORDANCE NFPA-90A.

L. DUCTWORK AND PIPING SHOWN ARE FOR GENERAL ROUTING PURPOSES ONLY. CONTRACTOR SHALL CONFIRM EXACT ROUTING WITH OTHER TRADES AND PROVIDE ALL NECESSARY TRANSITIONS, HIGH POINT VENTS AND LOW POINT DRAINS AND OFFSETS NECESSARY TO INSTALL A COMPLETE AND FUNCTIONING SYSTEM.

M. ALL PVC LINED DUCTWORK SHALL BE FLANGED AND GASKETED AS SHOWN ON HVAC DETAIL SHEETS. PROVIDE ACCESS PANELS IN DUCTWORK AS REQUIRED. ANY PANELS SHALL CONFORM WITH SPECIFICATIONS.

N. THE CEILING SPACE FROM THE BOTTOM OF THE CEILING GRID TO A MINIMUM OF 6" ABOVE THE BOTTOM OF THE CEILING GRID IS RESERVED FOR INSTALLATION OF CEILING MOUNTED ITEMS (I.E. LIGHT FIXTURES, SPEAKERS, DIFFUSERS). NO PIPING, DUCTWORK, CONDUITS, ETC., EXCEPT DROPS SERVING THE CEILING MOUNTED ITEMS, IS ALLOWED TO BE INSTALLED IN THIS SPACE, UNLESS OTHERWISE APPROVED BY THE RESIDENT ENGINEER.

O. CONTRACTOR IS REQUIRED TO FOLLOW ALL OSHA REGULATIONS CONCERNING CONSTRUCTION. THE SUPERINTENDENT IS REQUIRED TO HAVE COMPLETED, AS A MINIMUM, OSHA'S 10-HOUR TRAINING AND BE KNOWLEDGEABLE OF GENERAL SAFETY REQUIREMENTS FOR CONFINED SPACES, FALL PROTECTION, PERSONAL PROTECTIVE EQUIPMENT, TRENCHING, SCAFFOLDING, CRANES, ELECTRICAL, ETC. APPLICABLE SUBCONTRACTORS ARE TO HAVE A COMPETENT PERSON ON SITE WHEN REQUIRED BY OSHA.

P. IF ACCESSING A CONFINED SPACE, THE CONTRACTOR IS REQUIRED HAVE THEIR OWN CONFINED SPACE AIR MONITOR AND TO TEST THE AIR PRIOR TO ENTERING ANY CONFINED SPACE AIR MONITOR AND TO TEST THE AIR PRIOR TO ENTERING AND CONFINED SPACE. IF THE CONTRACTOR MUST ENTER A SANITARY SEWER MANHOLE, IN ADDITION TO A CONFINED SPACE AIR MONITOR, THEY MUST HAVE PROPER OSHA RESCUE EQUIPMENT FOR A PERMIT REQUIRED CONFINED SPACE. WHERE IT IS NOT POSSIBLE FOR THE VA TO SHUTDOWN AN ELECTRICAL PANEL OR CIRCUIT, THE CONTRACTOR MUST PROVIDE AND USE THE APPROPRIATE SAFETY CLOTHING AND EQUIPMENT AS REQUIRED BY NFPA 70E. THE VA WILL BE MONITORING THE CONTRACTOR'S COMPLIANCE WITH OSHA REGULATIONS. FAILURE TO COMPLY IS GROUNDS FOR STOPPING WORK.

Q. ELECTRICAL CONTRACTOR RESPONSIBLE TO PROVIDE AND INSTALL ALL DDC SYSTEM CONTROL CONDUITS.

HVAC DESIGN DATA

DESIGN CONDITIONS	SUMMER					WINTER				
	TEMP		WET BULB TEMP		% HUMIDITY	TEMP		DEWPOINT TEMP		% HUMIDITY
	°F	[°C]	°F	[°C]		°F	[°C]	°F	[°C]	
OUTDOOR DESIGN CONDITIONS	101	[38]	64	[18]	11	2	[-17]	0	[-18]	NA
INDOOR AREA DESIGN CONDITIONS										
PATIENT ROOM	75	[24]	58	[14]	35	70	[21]	33	[1]	25
OFFICE	75	[24]	58	[14]	35	70	[21]	33	[1]	25
EXAM ROOM	75	[24]	58	[14]	35	70	[21]	33	[1]	25

REVISIONS | DATE

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DRAWING TITLE: MECHANICAL COVER SHEET AND GENERAL NOTES

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013
PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE
APPROVED: MEDICAL CENTER DIRECTOR

BUILDING NUMBER: 67
CHECKED: SH
DRAWN: AA
LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: M0.1
DWG 64 OF 191

DEPARTMENT OF VETERANS AFFAIRS

FOUR PIPE FAN COIL UNIT SCHEDULE

MARK "67-FCU"	LOCATION (ROOMS SERVED)	TYPE	FAN AIR FLOW CFM	FAN AIR FLOW [L/s]	EXTERNAL APD IN WG	EXTERNAL APD [Pa]	BASIS OF DESIGN (TRANE) MODEL NUMBER	COIL ROWS CW/HW	FAN SPEED SETTING	OPERATING WT. LBS	OPERATING WT. [KG]
134	135	HORIZ. CONCEALED	218	[100]	0.239	[60]	FCCB03	3/1	Medium	75.1	[34]
135	136	HORIZ. CONCEALED	218	[100]	0.239	[60]	FCCB03	3/1	Medium	75.1	[34]
136	138	HORIZ. CONCEALED	218	[100]	0.239	[60]	FCCB03	3/1	Medium	75.1	[34]
137	132	HORIZ. CONCEALED	449	[210]	0.265	[66]	FCCB06	3/1	Low	132.5	[60]
138	132	HORIZ. CONCEALED	449	[210]	0.265	[66]	FCCB06	3/1	Low	132.5	[60]
139	c17,133,134,137	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	3/1	Low	52.1	[24]
140	252, 253	HORIZ. CONCEALED	685	[320]	0.223	[56]	FCCB08	3/1	Medium	139.4	[63]
141	235,236,237	HORIZ. CONCEALED	685	[320]	0.223	[56]	FCCB08	3/1	Medium	139.4	[63]
142	234	HORIZ. CONCEALED	509	[240]	0.178	[45]	FCCB08	3/1	Low	139.4	[63]
143	232,233	HORIZ. CONCEALED	284	[130]	0.239	[60]	FCCB02	3/0	High	52.1	[24]
144	230,230a,230b	HORIZ. CONCEALED	230	[110]	0.2	[50]	FCCB03	3/1	Medium	75.1	[34]
145	254	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
146	c21	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
147	231	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
148	228,227,226,c24,c25	HORIZ. CONCEALED	236	[110]	0.178	[45]	FCCB03	3/1	Medium	75.1	[34]
149	224,225	HORIZ. CONCEALED	470	[220]	0.218	[55]	FCCB06	3/1	Low	132.5	[60]
150	222	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
151	221	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
152	220,220a	HORIZ. CONCEALED	375	[180]	0.167	[42]	FCCB04	3/1	Medium	102.9	[47]
153	218,218a	HORIZ. CONCEALED	236	[110]	0.178	[45]	FCCB03	3/1	Medium	75.1	[34]
154	217,217a	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	2/1	Medium	52.1	[24]
155	216	HORIZ. CONCEALED	268	[130]	0.231	[58]	FCCB02	3/1	High	52.1	[24]
156	215,215a	HORIZ. CONCEALED	292	[140]	0.218	[55]	FCCB04	3/1	Low	102.9	[47]
157	c28,219	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	3/1	Medium	52.1	[24]
158	205c	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	3/1	Medium	52.1	[24]
159	205b	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	2/1	Medium	52.1	[24]
160	214	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	3/1	Medium	52.1	[24]
161	201,202	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	3/1	Low	52.1	[24]
162	206,206a	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	3/1	Medium	52.1	[24]
163	207,207a	HORIZ. CONCEALED	292	[140]	0.218	[55]	FCCB04	2/1	Low	102.9	[47]
164	208,208a	HORIZ. CONCEALED	375	[180]	0.167	[42]	FCCB04	3/1	Medium	102.9	[47]
165	209,209a	HORIZ. CONCEALED	292	[140]	0.218	[55]	FCCB04	3/1	Low	102.9	[47]
166	c26,210	HORIZ. CONCEALED	197	[93]	0.176	[44]	FCCB02	3/1	Medium	52.1	[24]
167	211	HORIZ. CONCEALED	711	[340]	0.18	[45]	FCCB08	3/1	Medium	139.4	[63]
168	213	HORIZ. CONCEALED	441	[210]	0.211	[53]	FCCB04	3/1	High	102.9	[47]
169	c27	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	3/1	Low	52.1	[24]
170	203,204,212	HORIZ. CONCEALED	292	[140]	0.218	[55]	FCCB04	3/1	Low	102.9	[47]
171	205	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	3/1	Low	52.1	[24]
172	352,352a	HORIZ. CONCEALED	375	[180]	0.167	[42]	FCCB04	3/1	Medium	102.9	[47]
173	c32,350,351,343	HORIZ. CONCEALED	626	[300]	0.217	[54]	FCCB06	3/1	Medium	132.5	[60]
174	347,348	HORIZ. CONCEALED	470	[220]	0.218	[55]	FCCB06	2/1	Low	132.5	[60]
175	345,345a	HORIZ. CONCEALED	509	[240]	0.178	[45]	FCCB08	3/1	Low	139.4	[63]
176	344,344a	HORIZ. CONCEALED	368	[170]	0.188	[47]	FCCB04	3/1	Medium	102.9	[47]
177	342, 349	HORIZ. CONCEALED	226	[110]	0.212	[53]	FCCB03	3/1	Medium	75.1	[34]
178	340,340a	HORIZ. CONCEALED	368	[170]	0.188	[47]	FCCB04	3/1	Medium	102.9	[47]
179	339,339a	HORIZ. CONCEALED	368	[170]	0.188	[47]	FCCB04	3/1	Medium	102.9	[47]
180	337,337a	HORIZ. CONCEALED	370	[170]	0.18	[45]	FCCB04	3/1	Medium	102.9	[47]
181	336	HORIZ. CONCEALED	226	[110]	0.212	[53]	FCCB03	3/1	Medium	75.1	[34]
182	335,335a	HORIZ. CONCEALED	470	[220]	0.218	[55]	FCCB06	3/1	Low	132.5	[60]
183	332,332a	HORIZ. CONCEALED	372	[180]	0.174	[44]	FCCB04	3/1	Medium	102.9	[47]
184	c31,c33,c34,301,353	HORIZ. CONCEALED	711	[340]	0.18	[45]	FCCB08	3/1	Medium	139.4	[63]
185	c31,c33,c34,301,353	HORIZ. CONCEALED	711	[340]	0.18	[45]	FCCB08	3/1	Medium	139.4	[63]
186	302,302a	HORIZ. CONCEALED	300	[140]	0.187	[47]	FCCB04	3/1	Low	102.9	[47]
187	303,303a	HORIZ. CONCEALED	300	[140]	0.187	[47]	FCCB04	3/1	Low	102.9	[47]
188	304,304a	HORIZ. CONCEALED	372	[180]	0.174	[44]	FCCB04	3/1	Medium	102.9	[47]
189	305	HORIZ. CONCEALED	516	[240]	0.19	[48]	FCCB08	2/1	Low	139.4	[63]
190	306	HORIZ. CONCEALED	355	[170]	0.231	[58]	FCCB04	3/1	Low	102.9	[47]
191	327,327a	HORIZ. CONCEALED	368	[170]	0.188	[47]	FCCB04	3/1	Medium	102.9	[47]
192	326,326a	HORIZ. CONCEALED	499	[240]	0.199	[50]	FCCB08	3/1	Low	139.4	[63]
193	322,322a	HORIZ. CONCEALED	357	[170]	0.222	[56]	FCCB04	3/1	Medium	102.9	[47]
194	320	HORIZ. CONCEALED	193	[91]	0.187	[47]	FCCB02	2/1	Medium	52.1	[24]
195	317,317a	HORIZ. CONCEALED	391	[180]	0.165	[41]	FCCB04	3/1	High	102.9	[47]
196	316	HORIZ. CONCEALED	236	[110]	0.178	[45]	FCCB03	3/1	Medium	75.1	[34]
197	319, 314	HORIZ. CONCEALED	181	[85]	0.203	[51]	FCCB02	3/1	Medium	52.1	[24]
198	325	HORIZ. CONCEALED	292	[140]	0.218	[55]	FCCB04	3/1	Low	102.9	[47]
199	329,330	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	2/1	Low	52.1	[24]
200	331	HORIZ. CONCEALED	137	[65]	0.167	[42]	FCCB02	3/1	Low	52.1	[24]
201	c38,328,324,321	HORIZ. CONCEALED	441	[210]	0.211	[53]	FCCB04	3/1	High	102.9	[47]
202	333,334	HORIZ. CONCEALED	284	[130]	0.239	[60]	FCCB02	3/0	High	52.1	[24]
203	c37	HORIZ. CONCEALED	479	[230]	0.199	[50]	FCCB06	3/1	Low	132.5	[60]
204	309,309a	HORIZ. CONCEALED	479	[230]	0.199	[50]	FCCB06	3/1	Low	132.5	[60]
205	310,310a	HORIZ. CONCEALED	479	[230]	0.199	[50]	FCCB06	3/1	Low	132.5	[60]
206	312,312a	HORIZ. CONCEALED	479	[230]	0.199	[50]	FCCB06	3/1	Low	132.5	[60]
207	313	HORIZ. CONCEALED	366	[170]	0.196	[49]	FCCB04	3/1	Medium	102.9	[47]
208	311	HORIZ. CONCEALED	176	[83]	0.242	[61]	FCCB02	2/1	Medium	52.1	[24]
209	307,308,c35,c36	HORIZ. CONCEALED	509	[240]	0.178	[45]	FCCB08	3/1	Low	139.4	[63]

COOLING REQUIREMENTS

MARK	MIN SENS CAPACITY BTUH	[W]	MIN TOTAL CAPACITY BTUH	[W]	EAT Db °F	[°C]	EAT Wb °F	[°C]	FLOW GPM	[L/s]	EWT °F	[°C]	WPD FT	[kPa]	RUNOUT SIZE IN	[mm]
134	4740	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.65	[17]	0.75	[19]
135	4740	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.65	[17]	0.75	[19]
136	4740	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.65	[17]	0.75	[19]
137	9000	[2600]	9000	[2600]	78	[26]	64	[18]	3.0	[39]	44	[7]	4.4	[13]	0.75	[19]
138	9000	[2600]	9000	[2600]	78	[26]	64	[18]	3.0	[39]	44	[7]	4.4	[13]	0.75	[19]
139	3320	[970]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.36	[19]	0.75	[19]
140	14000	[4100]	14000	[4100]	78	[26]	64	[18]	4.0	[53]	44	[7]	8.32	[25]	1.0	[25]
141	14000	[4100]	14000	[4100]	78	[26]	64	[18]	4.0	[53]	44	[7]	8.32	[25]	1.0	[25]
142	11900	[3500]	13500	[4000]	78	[26]	64	[18]	3.5	[46]	44	[7]	11.64	[35]	1.0	[25]
143	5000	[1500]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	3.9	[12]	0.75	[19]
144	4870	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.19	[16]	0.75	[19]
145	3000	[880]	3000	[880]	78	[26]	64	[18]	0.8	[10]	44	[7]	4.28	[13]	0.5	[13]
146	3000	[880]	3000	[880]	78	[26]	64	[18]	0.8	[10]	44	[7]	4.28	[13]	0.5	[13]
147	3000	[880]	3000	[880]	78	[26]	64	[18]	0.8	[10]	44	[7]	4.28	[13]	0.5	[13]
148	4940	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.97	[15]	0.75	[19]
149	8500	[2500]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	2.86	[9]	0.75	[19]
150	3000	[880]	3000	[880]	78	[26]	64	[18]	0.8	[10]	44	[7]	4.28	[13]	0.5	[13]
151	3000	[880]	3000	[880]	78	[26]	64	[18]	0.8	[10]	44	[7]	4.28	[13]	0.5	[13]
152	8150	[2400]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	10.53	[31]	0.75	[19]
153	4940	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.97	[15]	0.75	[19]
154	3730	[1100]	4000	[1200]	78	[26]	64	[18]	1.0	[13]	44	[7]	11.3	[34]	0.5	[13]
155	5490	[1600]	5500	[1600]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.79	[17]	0.75	[19]
156	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.7	[14]	0.75	[19]
157	4420	[1300]	5000	[1500]	78	[26]	64	[18]	2.0	[26]	44	[7]	7.25	[22]	0.75	[19]
158	4420	[1300]	5000	[1500]	78	[26]	64	[18]	2.0	[26]	44	[7]	7.25	[22]	0.75	[19]
159	3690	[1100]	4000	[1200]	78	[26]	64	[18]	1.0	[13]	44	[7]	11.94	[36]	0.5	[13]
160	4420	[1300]	5000	[1500]	78	[26]	64	[18]	2.0	[26]	44	[7]	7.25	[22]	0.75	[19]
161	3320	[970]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.36	[19]	0.75	[19]
162	4000	[1200]	4000	[1200]	78	[26]	64	[18]	1.0	[13]	44	[7]	2.5	[8]	0.5	[13]
163	5500	[1600]	5500	[1600]	78	[26]	64	[18]	2.0	[26]	44	[7]	5.35	[16]	0.75	[19]
164	7970	[2300]	8000	[2300]	78	[26]	64	[18]	2.0	[26]	44	[7]	8.41	[25]	0.75	[19]
165	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.7	[14]	0.75	[19]
166	4000	[1200]	4000	[1200]	78	[26]	64	[18]	1.0	[13]	44	[7]	2.5	[8]	0.5	[13]
167	15160	[4400]	16000	[4700]	78	[26]	64	[18]	4.0	[53]	44	[7]	12.52	[37]	1.0	[25]
168	9000	[2600]	9000	[2600]	78	[26]	64	[18]	2.0	[26]	44	[7]	10.11	[30]	0.75	[19]
169	3320	[970]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.36	[19]	0.75	[19]
170	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.7	[14]	0.75	[19]
171	3320	[970]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.36	[19]	0.75	[19]
172	8150	[2400]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	10.53	[31]	0.75	[19]
173	12000	[3500]	12000	[3500]	78	[26]	64	[18]	3.5	[46]	44	[7]	6.79	[20]	1.0	[25]
174	8500	[2500]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	8.35	[25]	0.75	[19]
175	9500	[2800]	9500	[2800]	78	[26]	64	[18]	2.0	[26]	44	[7]	3.34	[10]	0.75	[19]
176	7500	[2200]	7500	[2200]	78	[26]	64	[18]	1.5	[20]	44	[7]	6.74	[20]	0.75	[19]
177	4830	[1400]	5000	[1500]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.3	[16]	0.75	[19]
178	7000	[2100]	7000	[2100]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.5	[16]	0.75	[19]
179	7500	[2200]	7500	[2200]	78	[26]	64	[18]	1.5	[20]	44	[7]	6.74	[20]	0.75	[19]
180	7500	[2200]	7500	[2200]	78	[26]	64	[18]	1.5	[20]	44	[7]	6.77	[20]	0.75	[19]
181	4500	[1300]	4500	[1300]	78	[26]	64	[18]	1.0	[13]	44	[7]	3.44	[10]	0.5	[13]
182	8500	[2500]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	2.86	[9]	0.75	[19]
183	7500	[2200]	7500	[2200]	78	[26]	64	[18]	1.5	[20]	44	[7]	6.76	[20]	0.75	[19]
184	14000	[4100]	14000	[4100]	78	[26]	64	[18]	3.5	[46]	44	[7]	7.83	[23]	1.0	[25]
185	14000	[4100]	14000	[4100]	78	[26]	64	[18]	3.5	[46]	44	[7]	7.83	[23]	1.0	[25]
186	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.52	[14]	0.75	[19]
187	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.52	[14]	0.75	[19]
188	7950	[2300]	8000	[2300]	78	[26]	64	[18]	2.0	[26]	44	[7]	8.38	[25]	0.75	[19]
189	10000	[2900]	10000	[2900]	78	[26]	64	[18]	3.5	[46]	44	[7]	6.56	[20]	1.0	[25]
190	6500	[1900]	6500	[1900]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.66	[17]	0.75	[19]
191	7000	[2100]	7000	[2100]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.5	[16]	0.75	[19]
192	9200	[2700]	9200	[2700]	78	[26]	64	[18]	2.0	[26]	44	[7]	2.82	[8]	0.75	[19]
193	7000	[2100]	7000	[2100]	78	[26]	64	[18]	1.5	[20]	44	[7]	5.76	[17]	0.75	[19]
194	3690	[1100]	4000	[1200]	78	[26]	64	[18]	1.5	[20]	44	[7]	11.94	[36]	0.75	[19]
195	8000	[2300]	8000	[2300]	78	[26]	64	[18]	1.5	[20]	44	[7]	6.77	[20]	0.75	[19]
196	5120	[1500]	5500	[1600]	78	[26]	64	[18]	2.0	[26]	44	[7]	7.1	[21]	0.75	[19]
197	3900	[1100]	4000	[1200]	78	[26]	64	[18]	1.0	[13]	44	[7]	3.09	[9]	0.5	[13]
198	6000	[1800]	6000	[1800]	78	[26]	64	[18]	1.5	[20]	44	[7]	4.7	[14]	0.75	[19]
199	3110	[910]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	32.4	[97]	0.75	[19]
200	3320	[970]	4000	[1200]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.36	[19]	0.75	[19]
201	8000	[2300]	8000	[2300]	78	[26]	64	[18]	2.0	[26]	44	[7]	6.77	[20]	0.75	[19]
202	5850	[1700]	6000	[1800]	78	[26]	64	[18]	2.0	[26]	44	[7]	7.33	[22]	0.75	[19]
203	9000	[2600]	9000	[2600]	78	[26]	64	[18]	3.0	[39]	44	[7]	4.06	[12]	0.75	[19]
204	10000	[2900]	10000	[2900]	78	[26]	64	[18]	3.0	[39]	44	[7]	5.45	[16]	0.75	[19]
205	10000	[2900]	10000	[2900]	78	[26]	64	[18]	3.0	[39]	44	[7]	5.45	[16]	0.75	[19]
206	10000	[2900]	10000	[2900]	78	[26]	64	[18]	3.0	[39]	44	[7]	5.45	[16]	0.75	[19]
207	8050	[2400]	8500	[2500]	78	[26]	64	[18]	2.0	[26]	44	[7]	10.91	[33]	0.75	[19]
208	3320	[970]	3500	[1000]	78	[26]	64	[18]	1.0	[13]	44	[7]	8.22	[25]	0.5	[13]
209	11150	[3300]	11500	[3400]	78	[26]	64	[18]	3.5	[46]	44	[7]	6.73	[20]	1.0	[25]

HEATING REQUIREMENTS / FILTER / FAN MOTOR

MARK	MIN CAPACITY BTUH	W	EAT Db °F	[°C]	FLOW GPM	[L/m]	EWT °F	[°C]	WPD FT	[kPa]	RUNOUT SIZE IN	[mm]	FILTER MERV RATING	FAN MOTOR #1 POWER HP	[W]	PHASE	VOLT	TYPE	REMARKS
134	4500	[1300]	68	[20]	0.35	[1]	150	[66]	0.43	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
135	4500	[1300]	68	[20]	0.35	[1]	150	[66]	0.43	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
136	4500	[1300]	68	[20]	0.35	[1]	150	[66]	0.43	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
137	5000	[1500]	68	[20]	0.21	[1]	150	[66]	0.3	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
138	5000	[1500]	68	[20]	0.21	[1]	150	[66]	0.3	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
139	3000	[880]	68	[20]	0.25	[1]	150	[66]	0.24	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
140	6500	[1900]	68	[20]	0.26	[1]	150	[66]	0.5	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
141	6500	[1900]	68	[20]	0.26	[1]	150	[66]	0.5	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
142	7110	[2100]	68	[20]	0.3	[1]	150	[66]	0.64	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
143		[ ]				[ ]				[ ]		[ ]	8	0.33	[250]	1	208	ECM	
144	5400	[1600]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
145	4960	[1500]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
146	4960	[1500]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
147	4960	[1500]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
148	5460	[1600]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
149	9210	[2700]	68	[20]	0.5	[2]	150	[66]	1.24	[4]	0.5	[13]	8	0.33	[250]	1	208	ECM	
150	4960	[1500]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
151	5570	[1600]	68	[20]	0.75	[3]	150	[66]	1.56	[5]	0.5	[13]	8	0.33	[250]	1	208	ECM	
152	8450	[2500]	68	[20]	0.7	[3]	150	[66]	1.68	[5]	0.5	[13]	8	0.33	[250]	1	208	ECM	
153	5460	[1600]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
154	5010	[1500]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
155	5780	[1700]	68	[20]	0.5	[2]	150	[66]	0.79	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
156	6670	[2000]	68	[20]	0.5	[2]	150	[66]	0.94	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	
157	6000	[1800]	68	[20]	1.13	[4]	150	[66]	3.18	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
158	6000	[1800]	68	[20]	1.13	[4]	150	[66]	3.18	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
159	6000	[1800]	68	[20]	1.1	[4]	150	[66]	3.03	[9]	0.5	[13]	8	0.33	[250]	1	208	ECM	
160	6000	[1800]	68	[20]	1.13	[4]	150	[66]	3.18	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
161	4000	[1200]	68	[20]	0.53	[2]	150	[66]	0.86	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	
162	6000	[1800]	68	[20]	1.13	[4]	150	[66]	3.18	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
163	7000	[2100]	68	[20]	0.55	[2]	150	[66]	1.13	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	
164	6000	[1800]	68	[20]	0.35	[1]	150	[66]	0.51	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
165	5000	[1500]	68	[20]	0.29	[1]	150	[66]	0.39	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
166	6000	[1800]	68	[20]	1.13	[4]	150	[66]	3.18	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
167	6000	[1800]	68	[20]	0.23	[1]	150	[66]	0.41	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
168	4000	[1200]	68	[20]	0.18	[1]	150	[66]	0.17	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
169	3000	[880]	68	[20]	0.25	[1]	150	[66]	0.24	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
170	5000	[1500]	68	[20]	0.29	[1]	150	[66]	0.39	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
171	3000	[880]	68	[20]	0.25	[1]	150	[66]	0.24	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
172	8600	[2500]	68	[20]	0.74	[3]	150	[66]	1.85	[6]	0.5	[13]	8	0.33	[250]	1	208	ECM	
173	8500	[2500]	68	[20]	0.39	[2]	150	[66]	0.83	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	
174	6600	[1900]	68	[20]	0.3	[1]	150	[66]	0.54	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
175	7600	[2200]	68	[20]	0.33	[1]	150	[66]	0.73	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
176	7600	[2200]	68	[20]	0.54	[2]	150	[66]	1.09	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	
177	4000	[1200]	68	[20]	0.28	[1]	150	[66]	0.23	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
178	8000	[2300]	68	[20]	0.61	[2]	150	[66]	1.35	[4]	0.5	[13]	8	0.33	[250]	1	208	ECM	
179	6000	[1800]	68	[20]	0.35	[1]	150	[66]	0.52	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
180	6000	[1800]	68	[20]	0.35	[1]	150	[66]	0.52	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
181	4000	[1200]	68	[20]	0.28	[1]	150	[66]	0.29	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
182	7000	[2100]	68	[20]	0.33	[1]	150	[66]	0.62	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
183	7000	[2100]	68	[20]	0.45	[2]	150	[66]	0.8	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
184	12000	[3500]	68	[20]	0.55	[2]	150	[66]	1.77	[5]	0.5	[13]	8	0.33	[250]	1	208	ECM	
185	12000	[3500]	68	[20]	0.55	[2]	150	[66]	1.77	[5]	0.5	[13]	8	0.33	[250]	1	208	ECM	
186	5500	[1600]	68	[20]	0.34	[1]	150	[66]	0.49	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
187	5500	[1600]	68	[20]	0.34	[1]	150	[66]	0.49	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
188	9500	[2800]	68	[20]	1.07	[4]	150	[66]	3.45	[10]	0.5	[13]	8	0.33	[250]	1	208	ECM	
189	7500	[2200]	68	[20]	0.32	[1]	150	[66]	0.71	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
190	4500	[1300]	68	[20]	0.25	[1]	150	[66]	0.3	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
191	6000	[1800]	68	[20]	0.35	[1]	150	[66]	0.52	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
192	6000	[1800]	68	[20]	0.25	[1]	150	[66]	0.47	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
193	5000	[1500]	68	[20]	0.27	[1]	150	[66]	0.35	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
194	4000	[1200]	68	[20]	0.31	[1]	150	[66]	0.34	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
195	7000	[2100]	68	[20]	0.41	[2]	150	[66]	0.69	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
196	4000	[1200]	68	[20]	0.27	[1]	150	[66]	0.28	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
197	3000	[880]	68	[20]	0.18	[1]	150	[66]	0.15	[ ]	0.5	[13]	8	0.33	[250]	1	208	ECM	
198	4000	[1200]	68	[20]	0.21	[1]	150	[66]	0.22	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
199	3000	[880]	68	[20]	0.24	[1]	150	[66]	0.23	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
200	3000	[880]	68	[20]	0.25	[1]	150	[66]	0.24	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
201	7000	[2100]	68	[20]	0.41	[2]	150	[66]	0.69	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
202		[ ]				[ ]				[ ]		[ ]	8	0.33	[250]	1	208	ECM	
203	6000	[1800]	68	[20]	0.27	[1]	150	[66]	0.45	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
204	7500	[2200]	68	[20]	0.36	[1]	150	[66]	0.71	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
205	7500	[2200]	68	[20]	0.36	[1]	150	[66]	0.71	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
206	7500	[2200]	68	[20]	0.36	[1]	150	[66]	0.71	[2]	0.5	[13]	8	0.33	[250]	1	208	ECM	
207	5000	[1500]	68	[20]	0.27	[1]	150	[66]	0.34	[1]	0.5	[13]	8	0.33	[250]	1	208	ECM	
208	3000	[880]	68	[20]	0.19	[1]	150	[66]	0.15	[ ]	0.5	[13]	8	0.33	[250]	1	208	ECM	
209	8000	[2300]	68	[20]	0.35	[1]	150	[66]	0.82	[3]	0.5	[13]	8	0.33	[250]	1	208	ECM	

NOTES

AIR COOLED CHILLER SCHEDULE

MARK "67-CH"	LOCATION	AREA AND/OR BLDG SERVED	BASIS OF DESIGN (CARRIER) MODEL NUMBER	NET CAPACITY AT DESIGN TONS	[kW]	OPERATING WT. LBS	[KG]	TYPE	AHRI RATED CAPACITY TONS	[kW]	# OF COMP	MAX (kW/TON)	MIN COP	MAX NPLV (kW/TON)	EVAPORATOR FLOW GPM	[L/s]	EWT °F	[°C]	LWT °F	[°C]	MAX WPD FT	[kPa]	FOULING FACTOR	CONDENSER AMBIENT OA TEMP °F	[°C]	ELECTRICAL COMPRESSOR MOTOR # COMP	HP	[kW]	PHASE	VOLT	CONDENSER FAN MOTORS # FANS	NOMINAL POWER HP	[W]	PHASE	VOLT	REMARKS
3	BLDG 67	BLDG 67	30RAP030	23.6	[83]	1283	[582]	SCROLL	27.6	[97]	2	1.71	2	0.904	52	[3]	56	[13]	44	[7]	15	[45]	0.0001	115	[46]	2	25	[19]	3	460	2	3.3	[2500]	3	460	NEW

NOTES

1. SEE SPECIFICATIONS FOR OTHER APPLICABLE ENGINEERING REQUIREMENTS.
2. "MAX kW/TON" AND "MIN COP" SPECIFIED ARE AT DESIGN CONDITIONS INDICATED. kW/TON INCLUDES CONDENSER FANS.
3. THE SYSTEM FLUID IS 30% ETHYLENE GLYCOL.
4. PROVIDE WITH THE FOLLOWING OPTIONS AND ACCESSORIES: MOTORMASTER V CONDENSER HEAD PRESSURE CONTROL (FOR LOW AMBIENT OPERATION TO -20F), COOLER HEATER, NON-FUSED DISCONNECT, LOW SOUND PACKAGE, DIGITAL COMPRESSOR, SINGLE POINT POWER CONNECTION.
5. ALL CHILLER OR CONDENSING UNIT COILS ARE TO BE COMPLETELY PROTECTED USING AIR INTAKE FILTRATION SCREENS SPECIFICALLY DESIGNED FOR COTTONWOOD FILTRATION. THE SCREENS SHALL BE EASILY REMOVABLE WITH QUARTER TURN CONNECTIONS. THE SCREEN SHALL NOT VOID THE WARRANTY OF THE ORIGINAL EQUIPMENT MANUFACTURER. THE SCREENS SHALL HAVE A STATIC PRESSURE DROP LESS THAN 0.1 INCHES OF WATER GAGE, BE UV RESISTANT, FLAME RESISTANT, NON-ELECTRO STATIC, AND MOLD AND MILDEW RESISTANT. THE FILTERS SHALL BE IN ACCORDANCE WITH THE NATIONAL AIR FILTRATION ASSOCIATION FOR COTTONWOOD FILTERS.

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CAD FILE NAME: 531–320_M0.2.DWG
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DRAWING TITLE: MECHANICAL SCHEDULES
APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE
APPROVED: MEDICAL CENTER DIRECTOR

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION
BUILDING NUMBER: 67
CHECKED: SCH
DRAWN: RP
LOCATION: VAMC BOISE, IDAHO

DATE: 07/12/2013
PROJECT NO.: 531–320
DRAWING NO.: M0.2
DWG 65 OF 191

DEPARTMENT OF VETERANS AFFAIRS

AIR HANDLING UNIT SCHEDULE

MARK "67-AHU"	LOCATION	AREA AND/OR BLDG SERVED	BASIS OF DESIGN "AAON" MODEL NUMBER	BASIS OF DESIGN "AAON" OPERATING WEIGHT	TYPE	AIR FLOW	AIR FLOW SUPPLY CFM	AIR FLOW SUPPLY [L/s]	AIR FLOW MIN OA CFM	AIR FLOW MIN OA [L/s]	AIR FLOW RETURN CFM	AIR FLOW RETURN [L/s]	SUPPLY FAN MARK	RETURN OR RELIEF FAN MARK	EXHAUST FAN MARK	PREFILTER MARK	AFTER FILTER MARK	FINAL FILTER MARK	HEAT RECOVERY MARK	PREHEAT COIL MARK	COOLING COIL MARK	REHEAT COIL	HUMIDIFIER MARK	REMARKS
12	PENTHOUSE MECH. RM.	ISOL. ROOMS 315 & 323	H3-ARA-8-0-26HA-12Q	430	MODULAR	CAV	600	[280]	600	[280]	0	[ ]	(AHU-12 SUPPLY)	N/A	N/A	(AHU-12)	N/A	N/A	N/A	N/A	(AHU-12)	(AHU-12)	N/A	
14	PENTHOUSE MECH. RM.	ISOL. ROOMS 338 & 346	H3-ARA-8-0-26HA-12Q	430	MODULAR	CAV	625	[300]	625	[300]	0	[ ]	(AHU-14 SUPPLY)	N/A	N/A	(AHU-14)	N/A	N/A	N/A	N/A	(AHU-14)	(AHU-14)	N/A	

FAN SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	BASIS OF DESIGN (COOK/CAMFIL FARR AII EXHAUST, AAON AII SUPPLY) MODEL NUMBER	FILTERS (SEE SCHEDULE)	OPERATING WT. LBS	OPERATING WT. [KG]	AIR FLOW CFM	AIR FLOW [L/s]	ESP IN	ESP [Pa]	FAN TYPE	FAN WHEEL	FAN CLASS	FAN ARRANGEMENT, AND DISCHARGE	FAN DIAMETER IN	FAN DIAMETER [mm]	FAN MIN % EFF	FAN DRIVE	FAN MAX RPM	MOTOR ELECTRICAL NOMINAL POWER BHP	MOTOR ELECTRICAL NOMINAL POWER HP	MOTOR ELECTRICAL NOMINAL POWER [kW]	MOTOR ELECTRICAL PHASE	MOTOR ELECTRICAL VOLT	MOTOR ELECTRICAL RPM	MOTOR ELECTRICAL SPEED CONTROL	CONTROL SEQUENCE	REMARKS
67-EF 29	ROOF	ISOLATION ROOM 315	A.I.I. FILTERED EXHAUST	1/2x1-212-3GB-SS-SC500		600	[272]	350	[170]	0.4	[100]	UTILITY	BIA	I	ARR. 4 SWSI / UP BLAST	8.75	[220]	N/A	DIRECT	3300	0.85	1	[1]	3	208	1750	CONSTANT	All	NEW
67-EF 30	ROOF	ISOLATION ROOM 346	A.I.I. FILTERED EXHAUST	1/2x1-212-3GB-SS-SC500		600	[272]	376	[180]	0.4	[100]	UTILITY	BIA	I	ARR. 4 SWSI / UP BLAST	8.75	[220]	N/A	DIRECT	3300	0.85	1	[1]	3	208	1750	CONSTANT	All	NEW
67-EF 31	CRAWL SPACE	CRAWL SPACE	EXHAUST	GN-124		16	[7]	50	[24]	0.2	[50]	INLINE	FC	I	N/A	N/A	N/A	N/A	DIRECT	900	0.05	N/A	N/A	1	120	661	CONSTANT	ALWAYS ON	NEW WITH SPEED CONTROL
67-EF-32	ROOF	O2 STORAGE ROOMS 227,328	EXHAUST	70SQN-B		80	[36]	100	[47]	0.35	[88]	INLINE	BIA	I	N/A	N/A	N/A	N/A	BELT	4006	0.038	0.167	[.1]	1	120	1277	CONSTANT	ALWAYS ON	NEW
(AHU-12 SUPPLY)	ATTIC	ISOLATION ROOMS 315, 323	A.I.I. SUPPLY	310AX		0	[0]	600	[280]	1.3	[330]	PLENUM	BC	I	N/A	5.8	[150]	44%	DIRECT	1683	0.22	1.34	[1]	3	208	2580	CONSTANT	All	AHU-3 ECM
(AHU-14 SUPPLY)	ATTIC	ISOLATION ROOMS 338, 346	A.I.I. SUPPLY	310AX		0	[0]	625	[300]	1.3	[330]	PLENUM	BC	I	N/A	5.8	[150]	44%	DIRECT	1683	0.22	1.34	[1]	3	208	2580	CONSTANT	All	AHU-4 ECM

NOTE

ALL SELECTIONS ARE BASED ON AN ALTITUDE OF 2850 FT.

AIR FLOW CONTROL VALVE SCHEDULE

MARK 67-AFCV	LOCATION	SYSTEM AND/OR SERVICE	BASIS OF DESIGN MFG "PHOENIX"	TYPE	SIZE IN	SIZE [mm]	DESIGN AIR FLOW CFM	DESIGN AIR FLOW [L/s]	MAX AIR FLOW CFM	MAX AIR FLOW [L/s]	APD AT MAX AIR FLOW IN WG	APD AT MAX AIR FLOW [Pa]	CONTROL INPUT	CONNECT TO ECC	APPLICATION	REMARKS
1	ATTIC	A.I.I. SUPPLY RM 315	AV3100	LAMINAR COMPRESSION	8	[200]	250	[120]	300	[140]	0.05	[13]	0-10 VDC	8631-HC	A.I.I. ROOM	FURNISH VALVE WITH FACTORY BACNET/MSTP CONTROLLER.
2	ATTIC	A.I.I. SUPPLY RM 323	AV3100	LAMINAR COMPRESSION	8	[200]	350	[170]	400	[190]	0.1	[25]	0-10 VDC	8631-HC	A.I.I. ROOM	FURNISH VALVE WITH FACTORY BACNET/MSTP CONTROLLER.
3	ATTIC	A.I.I. SUPPLY RM 338	AV3100	LAMINAR COMPRESSION	8	[200]	350	[170]	400	[190]	0.1	[25]	0-10 VDC	8631-HC	A.I.I. ROOM	FURNISH VALVE WITH FACTORY BACNET/MSTP CONTROLLER.
4	ATTIC	A.I.I. SUPPLY RM 346	AV3100	LAMINAR COMPRESSION	8	[200]	276	[130]	326	[150]	0.07	[18]	0-10 VDC	8631-HC	A.I.I. ROOM	FURNISH VALVE WITH FACTORY BACNET/MSTP CONTROLLER.

AIR DEVICE SCHEDULE (SUPPLY)

MARK	TYPE	AIR FLOW MIN CFM	AIR FLOW MIN [L/s]	AIR FLOW MAX CFM	AIR FLOW MAX [L/s]	MAX APD IN WG	MAX APD [Pa]	MOUNTING	PANEL/FRAME SIZE IN x IN	PANEL/FRAME SIZE [mm x mm]	NECK SIZE IN	NECK SIZE [mm]	NC	DAMPER	FINISH	REMARKS
CD-1	TITUS TDV	140	[66]	200	[94]	0.067	[17]	LAY-IN	24X24	[610X610]	8	[203]	20			-----
CD-2	TITUS TDV	201	[95]	305	[140]	0.063	[16]	LAY-IN	24X24	[610X610]	10	[254]	20			-----
CD-3	TITUS TDV	306	[140]	405	[190]	0.060	[15]	LAY-IN	24X24	[610X610]	12	[305]	20			-----
CD-4	TITUS TDV	406	[190]	595	[280]	0.059	[15]	LAY-IN	24X24	[610X610]	14	[356]	20			-----
CD-5	TITUS TDV	140	[66]	200	[94]	0.067	[17]	SURFACE	-	-	8	[203]	20			-----
CD-6	TITUS TDV	201	[95]	305	[140]	0.063	[16]	SURFACE	-	-	10	[254]	20			-----
CD-7	TITUS TDV	306	[140]	405	[190]	0.060	[15]	SURFACE	-	-	12	[305]	20			-----
CD-8	TITUS TDC	0	[ ]	120	[57]	0.143	[36]	LAY-IN	24X24	[610X610]	6	[152]	22			-----
CD-9	TITUS TDC	121	[57]	225	[110]	0.123	[31]	LAY-IN	24X24	[610X610]	8	[203]	22			-----
CD-10	TITUS TDC	226	[110]	340	[160]	0.100	[25]	LAY-IN	24X24	[610X610]	10	[254]	22			-----
CD-11	TITUS TDC	341	[160]	470	[220]	0.085	[21]	LAY-IN	24X24	[610X610]	12	[305]	22			-----
CD-12	TITUS TDC	0	[ ]	120	[57]	0.143	[36]	SURFACE	-	-	6	[152]	22			-----
SG-1	TITUS 300RL		[ ]		[ ]		[ ]	WALL								-----

NOTES

1. SEE FLOOR PLAN FOR THROW PATTERN.
2. SEE DETAIL FOR DAMPER IN BRANCH DUCT SERVING EACH DIFFUSER.
3. PROVIDE SQUARE TO ROUND ADAPTER.

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CAD FILE NAME: 531-320_MO.3.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG

DRAWING TITLE: MECHANICAL SCHEDULES

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

BUILDING NUMBER: 67

CHECKED: SCH

DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: MO.3

DWG 66 OF 191

DEPARTMENT OF VETERANS AFFAIRS

PUMP SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	TYPE	CIRCULATING FLUID										MIN % EFF	ELECTRICAL MOTOR						REMARKS
					FLUID	FLOW		HEAD		NPSH AVAILABLE		TEMPERATURE		SP GR		NOMINAL POWER		PHASE	VOLT	MAX RPM	SPEED CONTROL	
						GPM	[L/s]	FT	[kPa]	FT	[kPa]	°F	[°C]			HP	[kW]					
67-P-HWHS 1	BASEMENT MECH. RM.	BLDG 67	HEATING WATER	END SUCTION	WATER	9'-5"	[7]	4'-2"	[800]	0'-5"	[80]	14'-2"	[77]	0'-1"	5'-5"	0'-3"	[2]	0'-3"	38'-4"	146'-8"	VSD	REPLACES P-HWHS-1
67-P-HWHS 2	BASEMENT MECH. RM.	BLDG 67	HEATING WATER	END SUCTION	WATER	9'-5"	[7]	4'-2"	[800]	0'-5"	[80]	14'-2"	[77]	0'-1"	5'-5"	0'-3"	[2]	0'-3"	38'-4"	146'-8"	VSD	REPLACES P-HWHS-2
67-P-CWS 1	PENTHOUSE MECH. RM	BLDG 67 - 2ND & 3RD FLR	CHILLED WATER SECONDARY	END SUCTION	ETHYLENE GLYCOL	14'-2"	[11]	5'-0"	[960]	1'-6"	[290]	3'-8"	[7]	1.0500	4'-7"	7.5000	[6]	0'-3"	38'-4"	146'-8"	VSD	REPLACES P-CWS-1
67-P-CWS 2	PENTHOUSE MECH. RM	BLDG 67 - 2ND & 3RD FLR	CHILLED WATER SECONDARY	END SUCTION	ETHYLENE GLYCOL	14'-2"	[11]	5'-0"	[960]	1'-6"	[290]	3'-8"	[7]	1.0500	4'-7"	7.5000	[6]	0'-3"	38'-4"	146'-8"	VSD	REPLACES P-CWS-2
67-P-CWS 5	PENTHOUSE MECH. RM	BLDG 67	SOUTH CHILLER CH-2 PRIMARY	VERTICAL INLINE	ETHYLENE GLYCOL	9'-4"	[7]	2'-11"	[560]	0'-5"	[80]	4'-8"	[13]	1.0500	4'-10"	0'-3"	[2]	0'-3"	38'-4"	146'-8"		NEW
67-P-CWS 6	PENTHOUSE MECH. RM	BLDG 67	SOUTH CHILLER CH-3 PRIMARY	VERTICAL INLINE	ETHYLENE GLYCOL	4'-4"	[3]	2'-11"	[560]	0'-3"	[48]	4'-8"	[13]	1.0500	4'-9"	0'-1"	[1]	0'-3"	38'-4"	146'-8"		NEW
67-P-CWS 7	PENTHOUSE MECH. RM	BLDG 67	NORTH CHILLER CH-1 PRIMARY	VERTICAL INLINE	ETHYLENE GLYCOL	9'-4"	[7]	2'-11"	[560]	0'-5"	[80]	4'-8"	[13]	1.0500	4'-10"	0'-3"	[2]	0'-3"	38'-4"	146'-8"		NEW

NOTES

1. SEE SPECIFICATIONS FOR OTHER APPLICABLE ENGINEERING REQUIREMENTS.
2. VARIABLE SPEED DRIVES ARE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR. WIRING, CONDUIT, AND FINAL CONNECTIONS BY ELECTRICAL CONTRACTOR. SEE SPECIFICATION SECTION 262911.

HEATING ONLY TWO PIPE FAN COIL UNIT SCHEDULE

MARK "FCU-67"	LOCATION	TYPE	BASIS OF DESIGN (TRANE)					FAN AIR FLOW		EXTERNAL APD		HEATING REQUIREMENTS				CIRCULATING WATER								FILTER	FAN MOTOR						REMARKS
			MODEL NUMBER	COIL ROWS	FAN SPEED SETTING	OPERATING WT.						MIN CAPACITY		EAT, Db		FLOW		EWT		WPD		RUNOUT SIZE			POWER		PHASE	VOLT	RPM	SPEED CONTROL	
						LBS	[KG]	CFM	[L/s]	IN WG	[Pa]	BTUH	[W]	°F	[°C]	GPM	[L/s]	°F	[°C]	FT	[kPa]	IN	[mm]	MERV RATING	HP	[W]					
210	3RD FLR STAIRWELL	FLR MT SLOPE TOP	FFJB060	2	Medium	75.1	[34]	512	[240]	N/A	N/A	26.4	[8]	65	[18]	2.3	[30]	150	[66]	10	[30]	0.75	[19]	8	0.33	[250]	1	208	1750	SEE NOTE	----
211	3RD FLR STAIRWELL	FLR MT SLOPE TOP	FFJB060	2	Medium	75.1	[34]	512	[240]	N/A	N/A	26.4	[8]	65	[18]	2.3	[30]	150	[66]	10	[30]	0.75	[19]	8	0.33	[250]	1	208	1750	SEE NOTE	----

NOTE

MANUAL SPEED CONTROL WITH A SELECTOR SWITCH.

CHILLED WATER COOLING COIL SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW		MAX FACE VELOCITY		APD		EAT				LAT				TOTAL CAPACITY		SENSIBLE CAPACITY		CHILLED WATER								REMARKS
										Db		Wb		Db		Wb						FLOW		EWT		LWT		WPD		
				CFM	[L/s]	FPM	[M/s]	IN WG	[Pa]	°F	[°C]	°F	[°C]	°F	[°C]	°F	[°C]	MBH	[kW]	MBH	[kW]	GPM	[L/s]	°F	[°C]	°F	[°C]	FT	[M]	
(AHU-12)	ATTIC	RMS 315 & 323	A.I.U.	600	[280]	300	[2]	0.24	[60]	115	[46]	64	[18]	50	[10]	36	[2]	42	[12]	42	[12]	7.8	[1]	44	[7]	55	[13]	5	[2]	-----
(AHU-14)	ATTIC	RMS 338 & 346	A.I.U.	626	[300]	300	[2]	0.24	[60]	115	[46]	64	[18]	50	[10]	36	[2]	42	[12]	42	[12]	7.8	[1]	44	[7]	55	[13]	5	[2]	

NOTE

THE COOLING COIL FIN SPACING SHALL NOT EXCEED 132 FINS PER FOOT [400 FINS PER METER].

HOT WATER HEATING COIL SCHEDULE

MARK	LOCATION	AREA AND/OR BLDG SERVED	SYSTEM AND/OR SERVICE	AIR FLOW		MAX FACE VELOCITY		APD		TEMPERATURES				TOTAL MIN CAPACITY		HOT WATER								% GLYCOL	REMARKS
										EAT		LAT				FLOW		EWT		LWT		WPD			
				CFM	[L/s]	FPM	[M/s]	IN WG	[Pa]	°F	[°C]	°F	[°C]	MBH	[kW]	GPM	[L/s]	°F	[°C]	°F	[°C]	FT	[kPa]		
(AHU-12)	ATTIC	RMS 315 & 323	A.I.U.	600	[280]	300	[2]	0.1	[25]	2	[-17]	87	[31]	58	[200]	3.5	[.022]	150	[66]	115	[46]	1.4	[4]	30% EG	---
(AHU-14)	ATTIC	RMS 338 & 346	A.I.U.	626	[300]	300	[2]	0.1	[25]	2	[-17]	87	[31]	58	[200]	3.5	[.022]	150	[66]	115	[46]	1.4	[4]	30% EG	
RHC-1,2,3,4	ATTIC	RMS 315, 323, 338 & 346	A.I.U.	350	[170]	260	[1]	0.1	[25]	55	[13]	75	[24]	7	[24]	0.5	[.022]	150	[66]	115	[46]	1.4	[4]	30% EG	

AIR DEVICE SCHEDULE (RETURN)

MARK	TYPE	AIR FLOW				MAX APD		MOUNTING	PANEL/FRAME SIZE		NECK SIZE		NC	DAMPER	FINISH	REMARKS
		MIN		MAX												
		CFM	[L/s]	CFM	[L/s]	IN WG	[Pa]		IN x IN	[mm x mm]	IN x IN	[mm x mm]				
RG-1	TITUS 50F	0	[ ]	145	[68]	0.090	23.000	LAY-IN	24X24	[610X610]	6X6		20			-----
RG-2	TITUS 50F	146	[69]	275	[130]	0.090	23.000	LAY-IN	24X24	[610X610]	8X8		20			-----
RG-3	TITUS 50F	276	[130]	435	[210]	0.090	23.000	LAY-IN	24X24	[610X610]	10X10		20			-----
RG-4	TITUS 50F	436	[210]	645	[300]	0.090	23.000	LAY-IN	24X24	[610X610]	12X12		20			-----
RG-5	TITUS 50F	0	[ ]	980	[460]	0.090	23.000	LAY-IN	24X24	[610X610]	22X10		20			-----
RG-6	TITUS 50F	900	[420]	2190	[1000]	0.090	23.000	LAY-IN	24X24	[610X610]	22X22		20			-----
RG-7		0	[ ]	145	[68]	0.090	23.000	SURFACE	24X24	[610X610]	6X6		20			-----
RG-8		146	[69]	275	[130]	0.090	23.000	SURFACE	24X24	[610X610]	8X8		20			-----
RG-9		276	[130]	435	[210]	0.090	23.000	SURFACE	24X24	[610X610]	10X10		20			-----
RG-10		436	[210]	645	[300]	0.090	23.000	SURFACE	24X24	[610X610]	12X12		20			-----
RG-11		0	[ ]	980	[460]	0.090	23.000	SURFACE	24X24	[610X610]	22X10		20			-----
TG-1			[ ]		[ ]		0.000	WALL								-----

EG-1		0	[ ]	145	[68]	0.090	23.000	LAY-IN	24X24	[610X610]	6X6		20			-----
EG-2		146	[69]	275	[130]	0.090	23.000	LAY-IN	24X24	[610X610]	8X8		20			-----
EG-3		276	[130]	435	[210]	0.090	23.000	LAY-IN	24X24	[610X610]	10X10		20			-----
EG-4		436	[210]	645	[300]	0.090	23.000	LAY-IN	24X24	[610X610]	12X12		20			-----
EG-5		0	[ ]	145	[68]	0.090	23.000	SURFACE	24X24	[610X610]	6X6		20			-----
EG-6		146	[69]	275	[130]	0.090	23.000	SURFACE	24X24	[610X610]	8X8		20			-----
EG-7		276	[130]	435	[210]	0.090	23.000	SURFACE	24X24	[610X610]	10X10		20			-----
EG-8		436	[210]	645	[300]	0.090	23.000	SURFACE	24X24	[610X610]	12X12		20			-----
EG-9		0	[ ]	980	[460]	0.090	23.000	LAY-IN	24X24	[610X610]	22X10		20			
EG-10		0	[ ]	980	[460]	0.090	23.000	LAY-IN	24X24	[610X610]	22X10		20			
EG-12								WALL								

NOTE

PROVIDE SQUARE TO ROUND ADAPTER.

ONE EIGHTH INCH = ONE FOOT · ONE QUARTER INCH = ONE FOOT · THREE EIGHTHS INCH = ONE FOOT · ONE HALF INCH = ONE FOOT · THREE QUARTERS INCH = ONE FOOT · ONE INCH = ONE FOOT · ONE AND ONE HALF INCHES = ONE FOOT · THREE INCHES = ONE FOOT

REVISIONS	DATE

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CAD FILE NAME: 531-320_M0.4.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG

DRAWING TITLE: MECHANICAL SCHEDULES

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

BUILDING NUMBER: 67

CHECKED: SCH

DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: M0.4

DWG 67 OF 191

DEPARTMENT OF VETERANS AFFAIRS

BOISE VA BLDG 67 - AIR DESIGN						PRESSURIZATION Δ SA-(EA+RA) =	187	OA-EA=	587		ΔOA-EA should be as small as possible for air to air heat exchanger efficiency				
Leakage area in square inches for pressurization air to maintain 0.01"WC differential with ambient			110	0.77		should be at least 100									
ROOM	COOL (MBH)	HEAT (MBH)	REQUIRED PRESSURE	CALCULATED SUPPLY AIR FLOW (CFM)	CALCULATED VENTILATION AIR FLOW (CFM)	DESIGN SUPPLY AIR FLOW (CFM)	DESIGN VENTILATION AIR FLOW (CFM)	DESIGN RETURN AIR FLOW (CFM)	DESIGN EXHAUST AIR FLOW (CFM)	DEDICATED EXHAUST AIR FLOW (CFM)	FLR (SF)	CALC CFM/SF	DESIGN CFM/SF	DESIGN VENT. ACH	DESIGN ACH
AIR ZONE 1															
C17	1.30	0.00		66	28	137	400	137			375	0.18	0.37	8.00	2.74
135 Office	4.30	2.90	NEUTRAL	221	15	218	15	203	15		115	1.92	1.90	0.97	14.22
136 Off	4.00	1.50	NEUTRAL	208	16	218	16	202	16		128	1.62	1.70	0.93	12.77
138 Office	3.90	1.60	NEUTRAL	203	14	218	14	204	14		100	2.03	2.18	1.03	16.35
132 Meeting	15.20	0.00	NEUTRAL	780	332	747	340	407	340		843	0.93	0.89	3.02	6.65
133 Womens tlt	0.40	0.00	NEG	22	0		0		187		140	0.16	1.33	10.00	0.00
134 Mens tlt	0.40	0.00	NEG	22	0		0		187		140	0.16	1.33	10.00	0.00
137 Stor	0.30	0.30	NEG	15	0				20		50	0.31	0.40	0.00	0.00
AIR ZONE 2															
C21	2.20	0.00		132	32	193	32	161			425	0.31	0.45	0.56	3.41
250 Off	7.00	3.00	NEUTRAL	425	49	444	49	395	49		325	1.31	1.37	1.14	10.25
251 Stu Off	3.80	1.60	NEUTRAL	231	27	241	27	214	27		190	1.21	1.27	1.06	9.51
233 Off	2.20	1.10	NEUTRAL	136	15	144	15	129	15		119	1.14	1.21	0.95	9.08
234 Psy Off	4.90	2.20	NEUTRAL	298	29	317	29	288	29		218	1.37	1.45	0.99	10.91
235 Off	3.50	1.80	NEUTRAL	211	17	224	17	207	17		145	1.45	1.54	0.89	11.59
232 Report	8.90	3.30	NEUTRAL	538	67	509	67	442	70		309	1.74	1.65	1.62	12.35
230,231 Comm	4.40	0.50	NEUTRAL	268	0	284	0	284	50		60	4.47	4.73	0.00	35.50
252 Pharm	1.40	0.00	POS	84	42	137	42	95			130	0.64	1.05	2.44	7.90
AIR ZONE 3															
C24,25	3.50	0.00		209	51	236	200	36			675	0.31	0.35	2.22	2.62
228 Secl	2.70	1.70	POS	163	39	230	147	83			121	1.34	1.90	9.09	14.26
228A Secl Ant	0.20	0.00	NEG	21	26		26		30		80	0.26	0.38	2.44	0.00
228B Secl tlt	0.80	0.70	NEG	46	0		0		133		100	0.46	1.33	10.00	0.00
229 Cons	2.90	1.30	NEUTRAL	177	28	193	28	165	28		120	1.47	1.61	1.73	12.06
227A Stor	0.10	0.00	NEG	12	0		0		25		100	0.12	0.25	0.00	0.00
226 Jan	0.40	0.00	NEG	22	0		0		67		50	0.44	1.33	10.00	0.00
225 Staff tlt	0.20	0.00	NEG	13	0		0		80		60	0.22	1.33	10.00	0.00
223 Cons	4.10	1.70	NEUTRAL	247	36	260	36	225	36		140	1.77	1.86	1.90	13.93
224 Hd N	3.30	1.80	NEUTRAL	199	18	210	18	192	18		155	1.29	1.35	0.86	10.16
222 Laundry	2.50	1.30	NEG	152	36	193	36	157	60		112	1.35	1.72	2.44	12.92
221 Clean Sup	2.50	1.30	POS	152	36	193	36	157			112	1.35	1.72	2.44	12.92
205C Lounge	3.10	0.00	NEG	190	38	197	38	159	60		175	1.09	1.13	1.63	8.44
222A Soiled	2.50	1.30	NEG	152	36		130		150		112	1.35	0.00	10.04	0.00
AIR ZONE 4															
C28,219	3.30	0.00		200	48	197	48	149	70		645	0.31	0.31	0.56	2.29
220 Dbl Pat	6.00	3.50	POS	363	66	375	103	272			202	1.80	1.86	3.81	13.92
220A Pat tlt	0.60	0.50	NEG	38	0		0		93		70	0.54	1.33	10.00	0.00
218 Pat	3.70	1.90	POS	221	39	236	103	133			120	1.85	1.97	6.42	14.75
218A Pat tlt	0.50	0.20	NEG	29	0		0		93		70	0.41	1.33	10.00	0.00
217 Pat	2.90	2.00	POS	176	47	197	103	94			144	1.22	1.37	5.35	10.26
217A Pat tlt	0.50	0.30	NEG	31	0		0		93		70	0.45	1.33	10.00	0.00
216 Clean Lin	4.20	2.70	POS	252	55	268	55	213	45		170	1.48	1.58	2.44	11.82
215 Dbl Pat	4.10	2.10	POS	249	72	292	103	189			220	1.13	1.33	3.50	9.95
215A Dbl tlt	0.50	0.30	NEG	31	0		0		93		70	0.44	1.33	10.00	0.00
214 Inter	1.40	0.00	NEUTRAL	83	30	137	30	107	30		148	0.56	0.93	1.51	6.94
AIR ZONE 5															
C27	2.70	0.00		139	40	137	40	97	50		530	0.26	0.26	0.56	1.94
202 Vest	0.90	0.00		53	27	57	27	30	50		360	0.15	0.16	0.56	1.19
205A Med	0.70	0.00	POS	44	33	47	33	15			100	0.44	0.47	2.44	3.53
205B Wkrm	2.30	0.00	NEUTRAL	142	28	150	28	122			120	1.18	1.25	1.73	9.38
201 Waiting	2.20	0.00	NEG	130	65	140	65	75	100		200	0.65	0.70	2.44	5.25
211 Day	14.80	4.80	NEG	759	188	711	188	524	230		577	1.31	1.23	2.44	9.24
213 Activity	8.00	2.20	NEG	410	85	441	85	357	140		260	1.58	1.70	2.44	12.72
204 Nurse	3.40	0.00	NEUTRAL	173	39	182	39	144			180	0.96	1.01	1.60	7.58
203 Nour	1.10	0.00	NEUTRAL	58	10	61	10	51			135	0.43	0.45	0.56	3.39
212 Vital	0.90	0.00	NEUTRAL	47	44	49	44	5			135	0.35	0.36	2.44	2.72
205 Nurse	2.70	0.00	NEUTRAL	137	40	137	40	97			200	0.68	0.69	1.50	5.14
AIR ZONE 6															
C26	2.70	0.00		164	40	197	40	157			530	0.31	0.37	0.57	2.79
206 Pat	2.40	1.50	POS	146	59	197	110	87			180	0.81	1.09	4.58	8.21
206A Pat tlt	0.40	0.00	NEG	22	0		0		100		75	0.30	1.33	10.00	0.00
207 Pat	2.50	2.20	POS	154	57	292	103	189			176	0.88	1.66	4.38	12.44
207A Pat tlt	1.70	1.60	NEG	101	0		0		93		70	1.44	1.33	10.00	0.00
208 Bari	4.60	2.70	POS	281	65	375	132	243			200	1.41	1.88	4.95	14.06
208A Bari tlt	1.30	2.60	NEG	108	0		0		120		90	1.20	1.33	10.00	0.00
209 Dbl Pat	4.00	2.20	POS	244	78	292	147	145			240	1.02	1.22	4.58	9.13
209A Dbl tlt	0.60	0.50	NEG	36	0		0		133		100	0.36	1.33	0.00	0.00
210 Stor	0.30	0.00	NEG	16	0				50		100	0.16	0.50	0.00	0.00
AIR ZONE 7															
C32,350,351	8.80	6.00		530	56	626	120	506			750	0.71	0.83	1.20	6.26
343 Staff tlt	0.90	1.50	NEG	63	0		0		80		60	1.05	1.33	10.00	0.00
349 Lin	1.50	0.80	POS	91	16	95	16	79			105	0.87	0.90	1.13	6.79
347 Office	4.60	3.00	NEUTRAL	280	16	306	16	290	16		130	2.15	2.35	0.92	17.65
348 Nour	2.50	1.60	NEUTRAL	150	8	164	8	156			104	1.44	1.58	0.56	11.83
346 Isol	6.90	5.10	NEG	416	76		276			280	234	1.78	0.00	12.05	0.00
346A Isol tlt	1.00	0.80	NEG	60	0		0			96	72	0.83	0.00	10.00	0.00
345 Pat	7.70	5.60	POS	465	68	509	103	406			210	2.22	2.42	3.67	18.18
345A Pat tlt	1.10	0.90	NEG	65	0		0		93		70	0.93	1.33	10.00	0.00
344 Pat	5.20	4.70	POS	312	72	368	103	265			220	1.42	1.67	3.50	12.55
344A Pat tlt	1.10	1.50	NEG	67	0		0		93		70	0.95	1.33	10.00	0.00
342 Clean	2.10	2.10	POS	126	19	131	19	131			126	1.00	1.04	1.12	7.80
341 Soiled	1.90	2.50	NEG	117	19		100		120		126	0.93	0.00	5.95	0.00
340 Pat	5.00	5.80	POS	301	65	368	103	265			200	1.51	1.84	3.85	13.80
340A Pat tlt	1.00	1.10	NEG	63	0		0		93		70	0.90	1.33	10.00	0.00
339 Pat	5.40	3.90	POS	328	65	368	103	265			200	1.64	1.84	3.85	13.80
339A Pat tlt	0.80	0.80	NEG	49	0		0		93		70	0.71	1.33	10.00	0.00
AIR ZONE 8															
C33,31,34	20.50	17.60		1239	135	1422	135	1287			1800	0.69	0.79	0.56	5.93
352 Bari	5.80	4.90	POS	350	82	375	103	272			252	1.39	1.49	3.06	11.16
352A Bari tlt	0.80	0.80	NEG	51	0		0		93		70	0.73	1.33	10.00	0.00
338 Isol	6.10	4.30	NEG	366	73		350			343	225	1.63	0.00	14.99	0.00
338A Isol tlt	0.90	1.00	NEG	54	0		0			107	80	0.67	0.00	10.00	0.00
337 Pat	5.60	4.30	POS	340	68	370	103	267			210	1.62	1.76	3.67	13.21
337 Pat tlt	0.80	0.90	NEG	50	0		0		93		70	0.72	1.33	10.00	0.00
336 Office	3.50	1.90	NEUTRAL	211	17	226	17	209	17		139	1.52	1.63	0.90	12.19
335 Pat	6.50	4.50	POS	395	68	470	117	353			210	1.88	2.24	4.19	16.79
335A Pat tlt	0.90	0.90	NEG	52	0		0		107		80	0.65	1.33	10.00	0.00
301, 353 Jan/stor	4.90	3.90	NEG	296	0		0		50		325	0.91	0.15	0.00	0.00
302 Pat	4.40	4.20	POS	269	83	300	103	197			255	1.05	1.18	3.02	8.82
302A Pat tlt	0.70	0.60	NEG	44	0		0		93		70	0.63	1.33	10.00	0.00
303 Pat	4.40	4.20	POS	269	83	300	103	197			255	1.05	1.18	3.02	8.82
303A Pat tlt	0.70	0.60	NEG	44	0		0		93		70	0.63	1.33	10.00	0.00
304 Pat	5.40	6.20	POS	326	83	372	103	269			255	1.28	1.46	3.02	10.94
304A Pat tlt	1.50	2.10	NEG	89	0		0		93		70	1.27	1.33	10.00	0.00
305 Office	6.80	6.40	NEUTRAL	511	70	516	70	446	45		272	1.51	1.90	1.93	14.23
306 Nurse	5.50	3.30	NEUTRAL	334	41	355	41	314	40		210	1.59	1.69	1.46	12.68
333,334 Comm	4.40	0.50	NEUTRAL	268	0	284	0	284	50		60	4.47	4.73	0.00	35.50
AIR ZONE 9															
C38,328,324	6.30	5.00		384	47	441	47	395			620	0.62	0.71	0.56	5.33
332 Pat	5.60	4.50	POS	341	73	372	92	280			224	1.52	1.66	3.09	12.46
332A Pat tlt	0.90	1.20	NEG	57	0		0		84		63	0.91	1.33	10.00	0.00
327 Pat	5.20	3.80	POS	312	64	368	123	245			196	1.59	1.88	4.71	14.08
327A Pat tlt	0.90	1.10	NEG	57	0		0		112		84	0.67	1.33	10.00	0.00
326 Pat	7.10	4.90	POS	429	73	499	103	396			224	1.92	2.23	3.44	16.71
326A Pat tlt	1.10	0.70	NEG	69	0		0		93		70	0.98	1.33	10.00	0.00
325 Lounge	4.50	1.40	NEG	271	38	292	38	254	80		175	1.55	1.67	1.63	12.51
329 Med	1.00	0.60	POS	63	26	70	26	44			80	0.78	0.88	2.44	6.56
330 Nour	1.00	0.60	NEUTRAL	61	6	67	6	61			77	0.79	0.87	0.56	6.53
331 Tub	2.40	1.10	NEG	136	43	137	43	94	60		132	1.11	1.04	2.44	7.78
AIR ZONE 10															
C37	8.00	5.00		484	51	479	220	259			680	0.71	0.70	2.43	5.28
323 Bari	7.90	5.10	NEG	476	83		350			343	255	1.87	0.00	13.23	0.00
323A Bari tlt	0.90	1.10	NEG	55	0		0			107	80	0.69	0.00	10.00	0.00
322 Pat	4.80	3.10	POS	288	53	357	88	269			163	1.77	2.19	4.05	16.43
322A Pat tlt	0.90	0.80	NEG	54	0		0		80		60	0.90	1.33	10.00	0.00
320 Pharm	3.10	2.10	POS	190	36	193	36	157			111	1.71	1.74	2.44	13.04
317 Pat	6.00	4.70	POS	363	73	391	88	303			225	1.61	1.74	2.93	13.03
317A Pat tlt	1.10	1.20	NEG	64	0		0		80		60	1.07	1.33	10.00	0.00
316 Off	4.10	2.40	NEUTRAL	248	15	236	15	222	15		110	2.26	2.15	0.99	16.09
315 Isol	5.40	3.80	NEG	324	68		250			270	210	1.54	0.00	12.50	0.00
315A Isol tlt	0.80	0.50	NEG	51	0		0			80	60	0.85	0.00	10.00	0.00
314 Lin	0.90	0.30	POS	55	20	59	20	40			60	0.92	0.98	2.44	7.38
318 Soiled	1.20	0.70	NEG	70	29		70		120		90	0.77	1.33	10.00	0.00
319 Clean	1.90	0.90	POS	113	36	122	36	86			110	1.03	1.11	2.44	8.32
321 Staff tlt	0.50	0.50	NEG	32	0		0		80		60	0.53	0.00	10.00	0.00
AIR ZONE 11															
C36,35	6.30	4.80		323	34	335	65	270			450	0.72	0.74	1.08	5.58
309 Pat	7.90	4.50	POS	407	78	479	103	376			240	1.70	2.00	3.21	14.97
309A Pat tlt	0.90	0.60	NEG	47	0		0		93		70	0.68	1.33	10.00	0.00
310 Pat	7.90	4.40	POS	408	78	479	103	376			240	1.70	2.00	3.21	14.97
310A Pat tlt	0.90	0.60	NEG	47	0		0		93		70	0.68	1.33	10.00	0.00
312 Pat	7.90	4.10	POS	406	78	479	103	376			240	1.69	2.00	3.21	14.97
312A Pat tlt	0.90	0.60	NEG	47	0		0		93		70	0.68	1.33	10.00	0.00
313 Report	7.10	2.20	NEUTRAL	366	64	366	64	302	64		275	1.33	1.33	1.76	9.98
311 Consult	2.90	1.10	NEUTRAL	149	36	176	36	141	36		140	1.06	1.26	1.90	9.43
307 Waiting	3.30	1.20	NEG	168	49	174	49	125	60		150	1.12	1.16	2.44	8.70
308 Staff tlt	0.70	0.50	NEG	36	0		0		80		60	0.59	1.33	10.00	0.00

ONE EIGHTH INCH = ONE FOOT · ONE QUARTER INCH = ONE FOOT · THREE EIGHTHS INCH = ONE FOOT · ONE HALF INCH = ONE FOOT · THREE QUARTERS INCH = ONE FOOT · ONE INCH = ONE FOOT · ONE AND ONE HALF INCHES = ONE FOOT · THREE INCHES = ONE FOOT

REVISIONS | DATE

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CAD FILE NAME: 531-320_M0.5.DWG
XREF FILE NAME: 531-320_30X42TLBK.DWG

DRAWING TITLE: HVAC DESIGN SCHEDULE

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

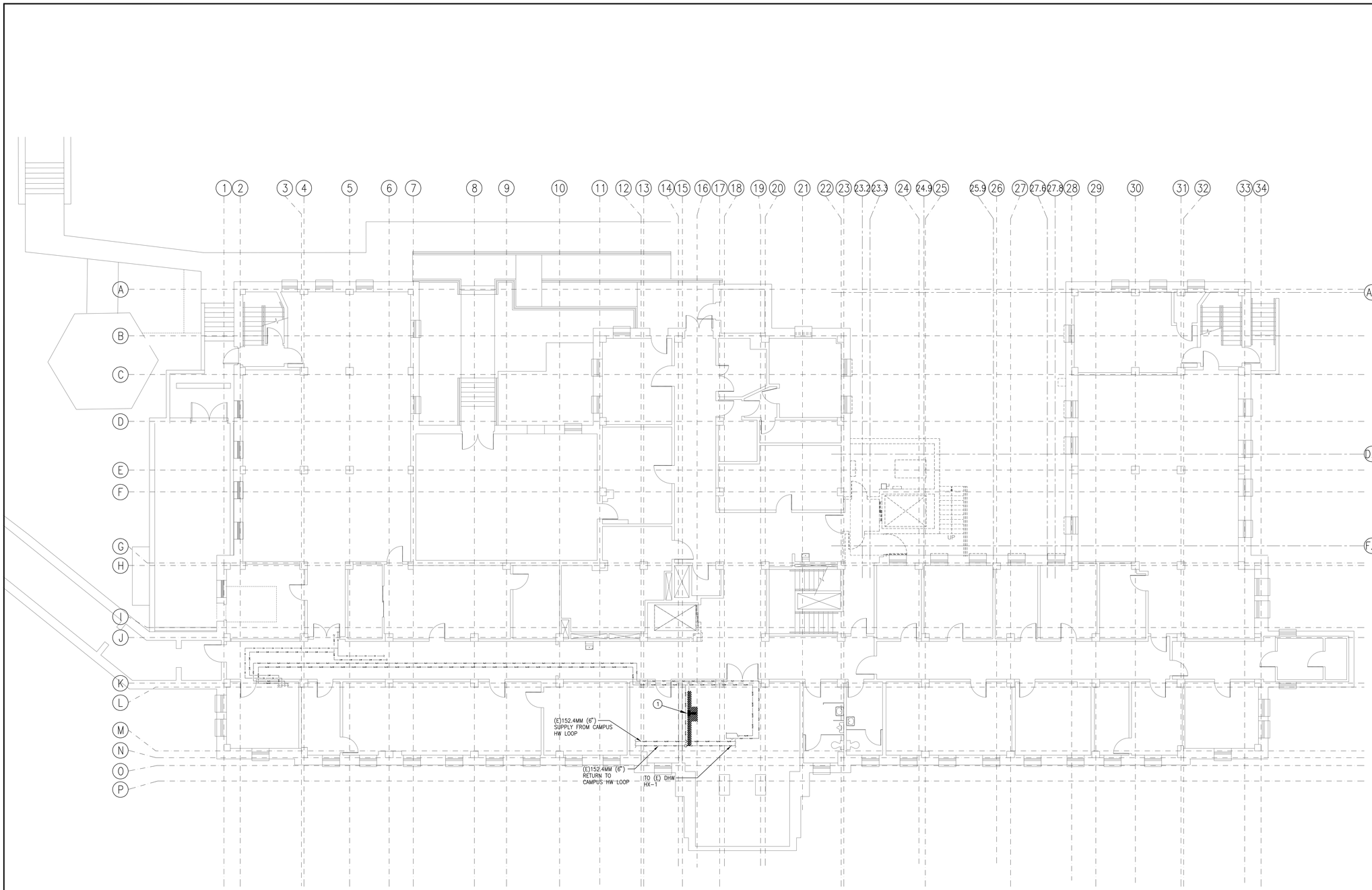
LOCATION: VAMC BOISE, IDAHO

DATE: 07/12/2013

PROJECT NO. 531-320

DRAWING NO. M0.5

DEPARTMENT OF VETERANS AFFAIRS



BASEMENT FLOOR DEMOLITION PLAN – HVAC

TRUE PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

E. EQUIPMENT, DUCTWORK AND PIPE SIZES SHOWN ARE FOR CONTRACTOR'S GENERAL ESTIMATING PURPOSES THESE SIZES HAVE BEEN VERIFIED FROM FIELD OBSERVATION OF GENERAL CONDITIONS WHERE PIPES AND EQUIPMENT ARE VISIBLE. NO PROVISIONS WILL BE MADE FOR DISCREPANCIES IN THESE SIZES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TAKE MEASUREMENTS PRIOR TO BIDDING. SEE GENERAL NOTES ON M0.1 FOR MORE INFORMATION.

F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE (E)PUMPS HWHS-1 & HWHS-2 AND PIPING CONNECTION TO CAMPUS HW LOOP

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1-1/4")	(N)31.8MM (1-1/4")
(E)38.1MM (1-1/2")	(N)38.1MM (1-1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2-1/2")	(N)63.5MM (2-1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531-320_M1.0.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG 531-320_67A0.DWG

DRAWING TITLE: BASEMENT FLOOR HVAC DEMOLITION PLAN

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

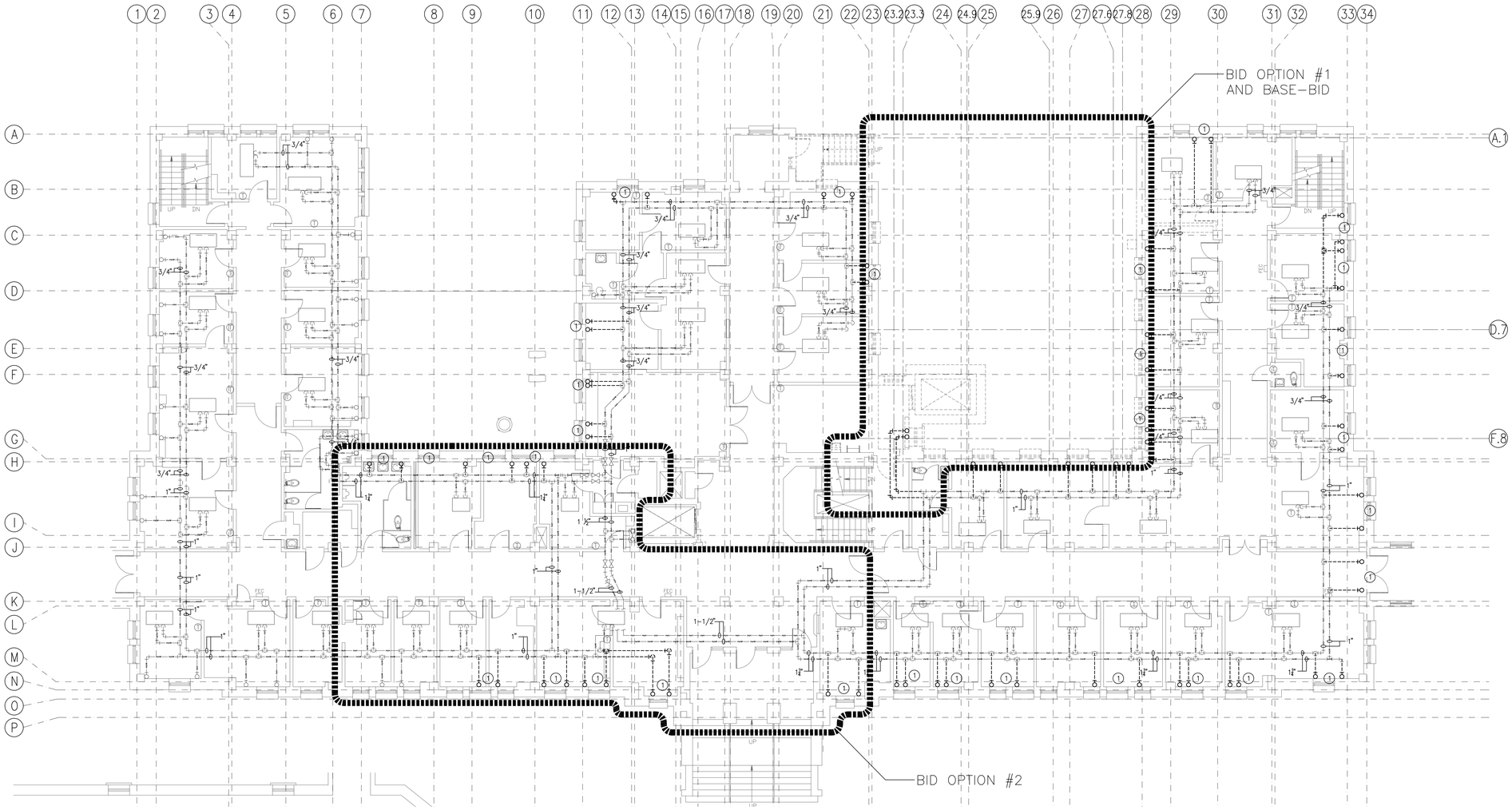
DRAWING NO.: M1.0

APPROVED: MEDICAL CENTER DIRECTOR

LOCATION: VAMC BOISE, IDAHO

DWG 69 OF 191

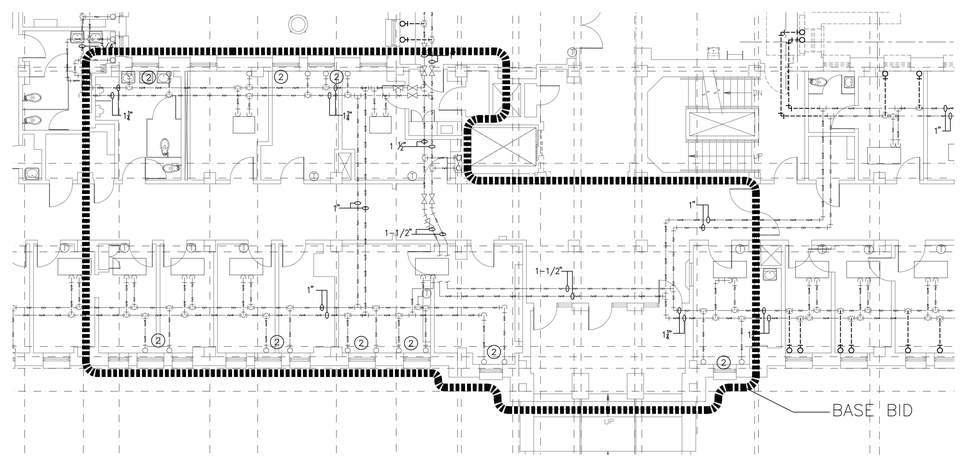
DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 FIRST FLOOR HVAC DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



TRUE PLAN

1 FIRST FLOOR HVAC DEMOLITION PLAN-BASE BID

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

E. EQUIPMENT, DUCTWORK AND PIPE SIZES SHOWN ARE FOR CONTRACTOR'S GENERAL ESTIMATING PURPOSES THESE SIZES HAVE BEEN VERIFIED FROM FIELD OBSERVATION OF GENERAL CONDITIONS WHERE PIPES AND EQUIPMENT ARE VISIBLE. NO PROVISIONS WILL BE MADE FOR DISCREPANCIES IN THESE SIZES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TAKE MEASUREMENTS PRIOR TO BIDDING. SEE GENERAL NOTES ON M0.1 FOR MORE INFORMATION.

F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE RUNOUT TO SECOND FLOOR FCU/CONVECTOR. CAP/PLUG TEE AT NEAREST LIVE PIPE TO REMAIN IN SERVICE.
2. BASE-BID SECOND FLOOR FCU/CONVECTOR TO REMAIN IN SERVICE.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1-1/4")	(N)31.8MM (1-1/4")
(E)38.1MM (1-1/2")	(N)38.1MM (1-1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2-1/2")	(N)63.5MM (2-1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531-320_M1.1.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG 531-320_67A1.DWG

DRAWING TITLE: FIRST FLOOR HVAC DEMOLITION PLAN

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

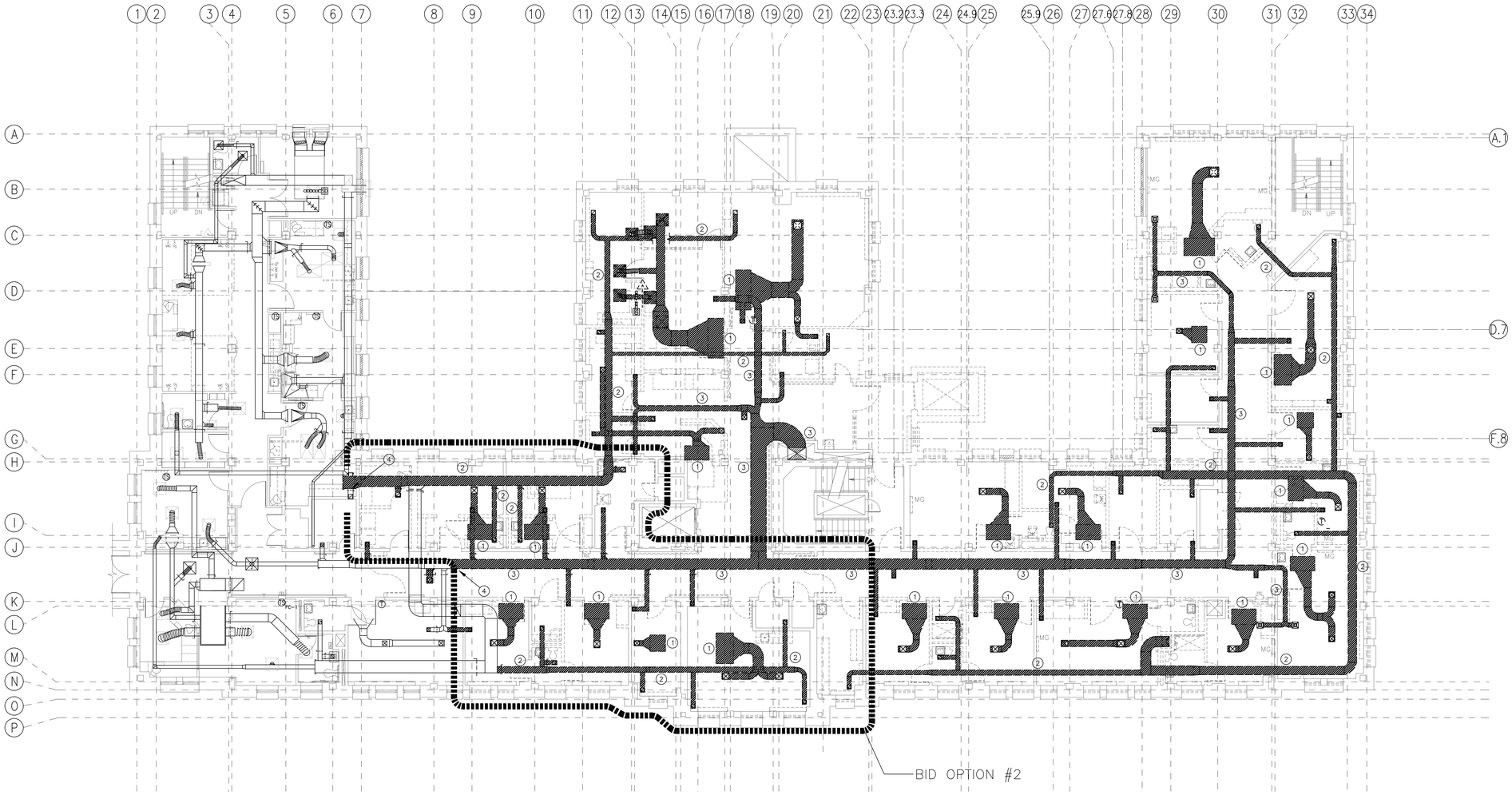
BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: M1.1

DWG 70 OF 191

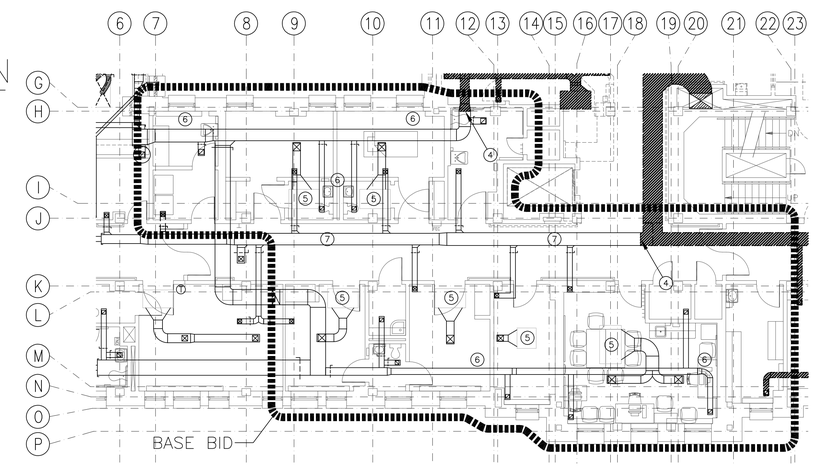
DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 SECOND FLOOR AIRSIDE HVAC DEMOLITION PLAN

SCALE: 1/8" = 1'-0"



TRUE PLAN

2 SECOND FLOOR AIRSIDE HVAC DEMOLITION PLAN–BASE BID

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

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F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE FCU/CONVECTOR, ASSOCIATED CONTROLS, DUCT, & DIFFUSERS.
2. REMOVE EXISTING EXHAUST DUCT AND GRILLES. CAP AND SEAL AT LIVE DUCT TO REMAIN IN SERVICE.
3. REMOVE EXISTING VENTILATION DUCT AND DIFFUSERS. CAP AND SEAL AT LIVE DUCT TO REMAIN IN SERVICE.
4. PREP FOR CONNECTION UNDER NEW WORK.
5. BASE–BID – FCU, CONTROLS, DUCT, AND DIFFUSERS TO REMAIN IN SERVICE.
6. BASE–BID – EXHAUST DUCT, AND GRILLES TO REMAIN IN SERVICE.
7. BASE–BID – VENTILATION SUPPLY DUCT, AND GRILLES TO REMAIN IN SERVICE.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1–1/4")	(N)31.8MM (1–1/4")
(E)38.1MM (1–1/2")	(N)38.1MM (1–1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2–1/2")	(N)63.5MM (2–1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531–320_M1.2.DWG
XREF FILE NAME: 531–320_30X42TLBK.DWG, 531–320_67A2.DWG

DRAWING TITLE: SECOND FLOOR AIRSIDE HVAC DEMOLITION PLAN

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013
PROJECT NO.: 531–320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE
APPROVED: MEDICAL CENTER DIRECTOR

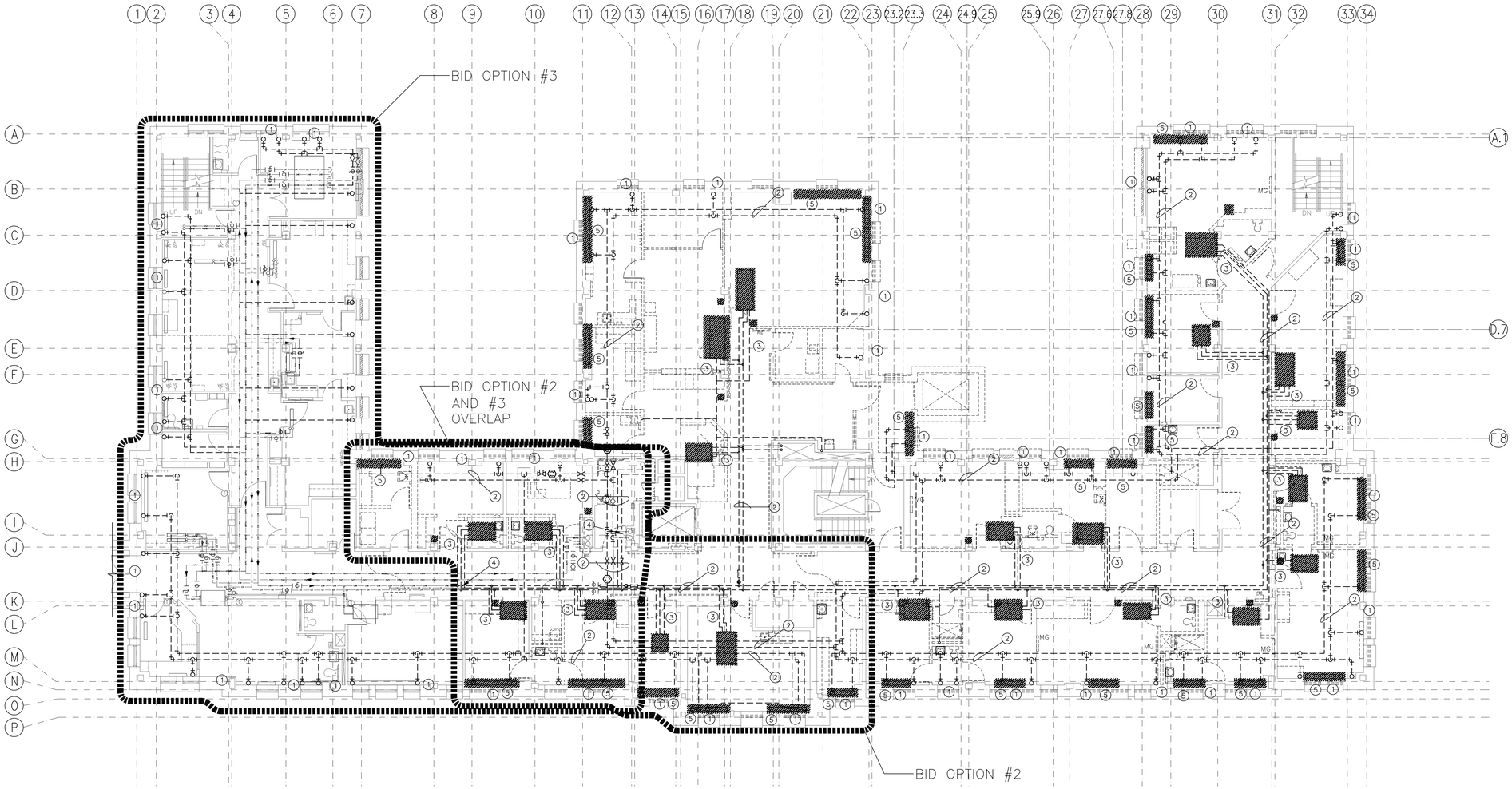
BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: M1.2

DWG 71 OF 191

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 SECOND FLOOR HYDRONIC HVAC DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

E. EQUIPMENT, DUCTWORK AND PIPE SIZES SHOWN ARE FOR CONTRACTOR'S GENERAL ESTIMATING PURPOSES THESE SIZES HAVE BEEN VERIFIED FROM FIELD OBSERVATION OF GENERAL CONDITIONS WHERE PIPES AND EQUIPMENT ARE VISIBLE. NO PROVISIONS WILL BE MADE FOR DISCREPANCIES IN THESE SIZES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TAKE MEASUREMENTS PRIOR TO BIDDING. SEE GENERAL NOTES ON M0.1 FOR MORE INFORMATION.

F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE RUNOUT TO THIRD FLOOR FCU/CONVECTOR. CAP/PLUG TEE AT NEAREST LIVE PIPE TO REMAIN IN SERVICE.
2. REMOVE PIPING MAINS.
3. REMOVE FCU RUNOUTS.
4. PREP FOR CONNECTION UNDER NEW WORK.
5. REMOVE FCU/CONVECTOR, ASSOCIATED CONTROLS, DUCT, & DIFFUSERS.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1-1/4")	(N)31.8MM (1-1/4")
(E)38.1MM (1-1/2")	(N)38.1MM (1-1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2-1/2")	(N)63.5MM (2-1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS	DATE

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CAD FILE NAME: 531-320_M1.3.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG 531-320_67A2.DWG

DRAWING TITLE: SECOND FLOOR HYDRONIC HVAC DEMOLITION PLAN

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO. 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

BUILDING NUMBER 67 | CHECKED SCH | DRAWN RP

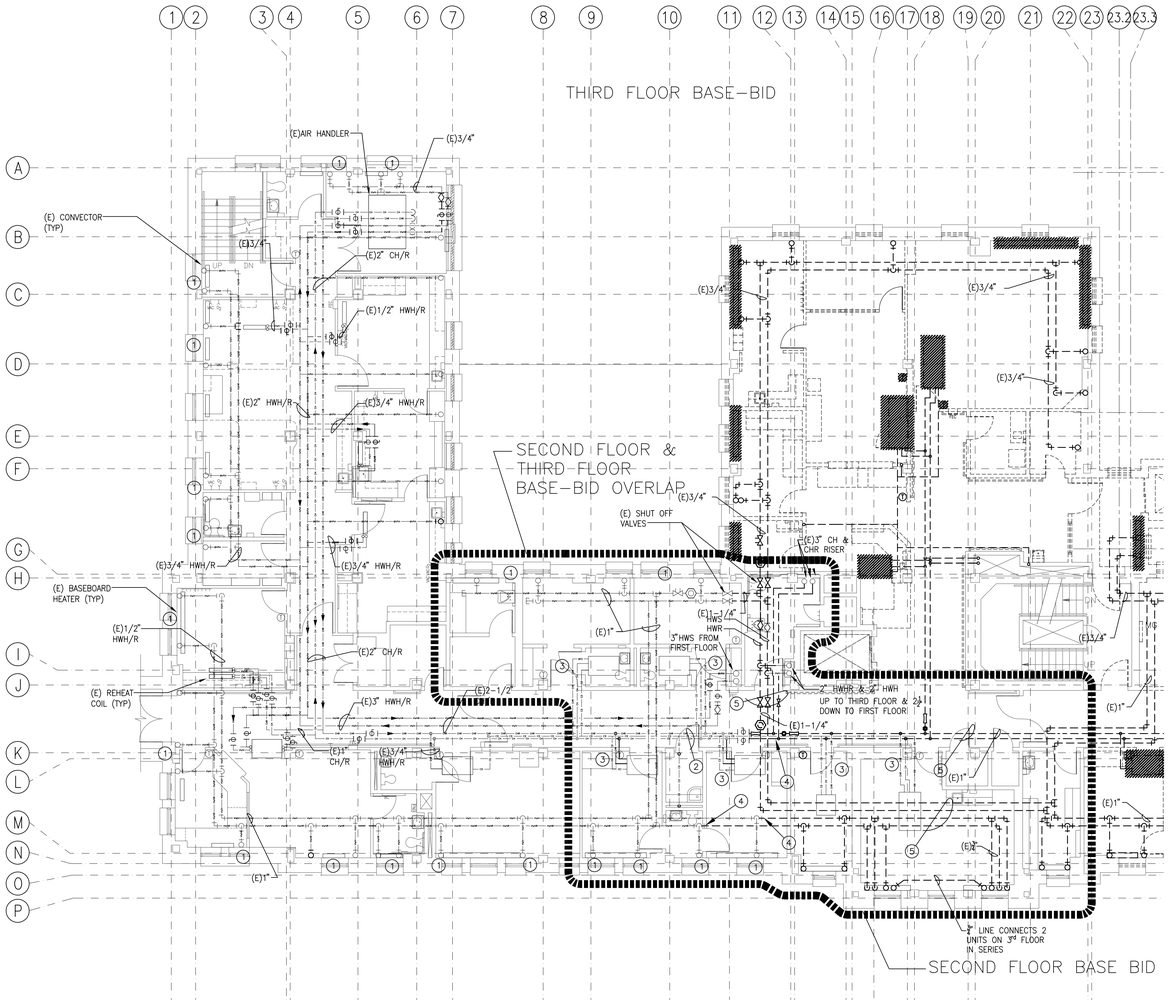
DRAWING NO. M1.3

APPROVED: MEDICAL CENTER DIRECTOR

LOCATION VAMC BOISE, IDAHO

DWG 72 OF 191

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 SECOND FLOOR HYDRONIC HVAC DEMOLITION PLAN–BASE BID

SCALE: 1/8" = 1'–0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

E. EQUIPMENT, DUCTWORK AND PIPE SIZES SHOWN ARE FOR CONTRACTOR'S GENERAL ESTIMATING PURPOSES THESE SIZES HAVE BEEN VERIFIED FROM FIELD OBSERVATION OF GENERAL CONDITIONS WHERE PIPES AND EQUIPMENT ARE VISIBLE. NO PROVISIONS WILL BE MADE FOR DISCREPANCIES IN THESE SIZES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TAKE MEASUREMENTS PRIOR TO BIDDING. SEE GENERAL NOTES ON M0.1 FOR MORE INFORMATION.

F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. RUNOUTS TO THIRD FLOOR FCU/CONVECTOR TO REMAIN IN SERVICE.
2. PIPING MAINS TO REMAIN IN SERVICE.
3. FCU RUNOUTS TO REMAIN IN SERVICE.
4. PREP FOR CONNECTION UNDER NEW WORK.
5. REMOVE PIPING MAINS.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1–1/4")	(N)31.8MM (1–1/4")
(E)38.1MM (1–1/2")	(N)38.1MM (1–1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2–1/2")	(N)63.5MM (2–1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531–320_M1.3A.DWG
XREF FILE NAME: 531–320_30X42TLBK.DWG 531–320_67A2.DWG

DRAWING TITLE: SECOND FLOOR HYDRONIC HVAC DEMOLITION PLAN–BASE BID

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013
PROJECT NO.: 531–320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE
APPROVED: MEDICAL CENTER DIRECTOR

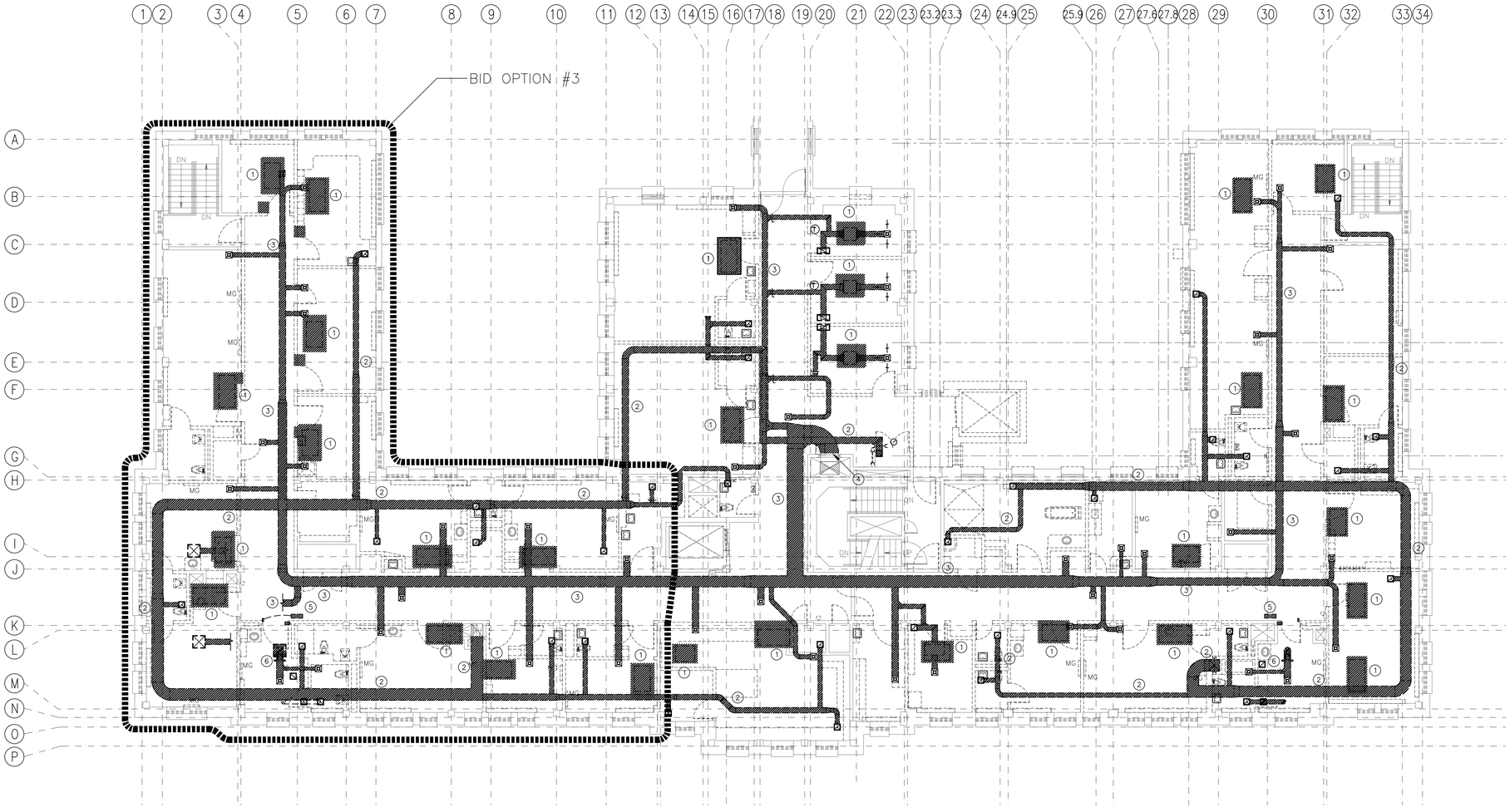
BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DRAWING NO.: M1.3A

DWG 73 OF 191

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 THIRD FLOOR AIRSIDE HVAC DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

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F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE FCU/CONVECTOR, ASSOCIATED CONTROLS, DUCT, & DIFFUSERS.
2. REMOVE EXISTING EXHAUST DUCT AND GRILLES. CAP AND SEAL AT LIVE DUCT TO REMAIN IN SERVICE.
3. REMOVE EXISTING VENTILATION DUCT AND DIFFUSERS. CAP AND SEAL AT LIVE DUCT TO REMAIN IN SERVICE.
4. PREP FOR CONNECTION UNDER NEW WORK.
5. REMOVE PHOENIX CONTROL VALVE AND ASSOCIATED CONTROLS.
6. REMOVE EXISTING ISOLATION ROOM SUPPLY DUCT, DIFFUSERS, AND CONTROLS.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1-1/4")	(N)31.8MM (1-1/4")
(E)38.1MM (1-1/2")	(N)38.1MM (1-1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2-1/2")	(N)63.5MM (2-1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531-320_M1.4.DWG
XREF FILE NAME: 531-320_30X42TLBK.DWG 531-320_67A3.DWG

DRAWING TITLE: THIRD FLOOR AIRSIDE HVAC DEMOLITION PLAN

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

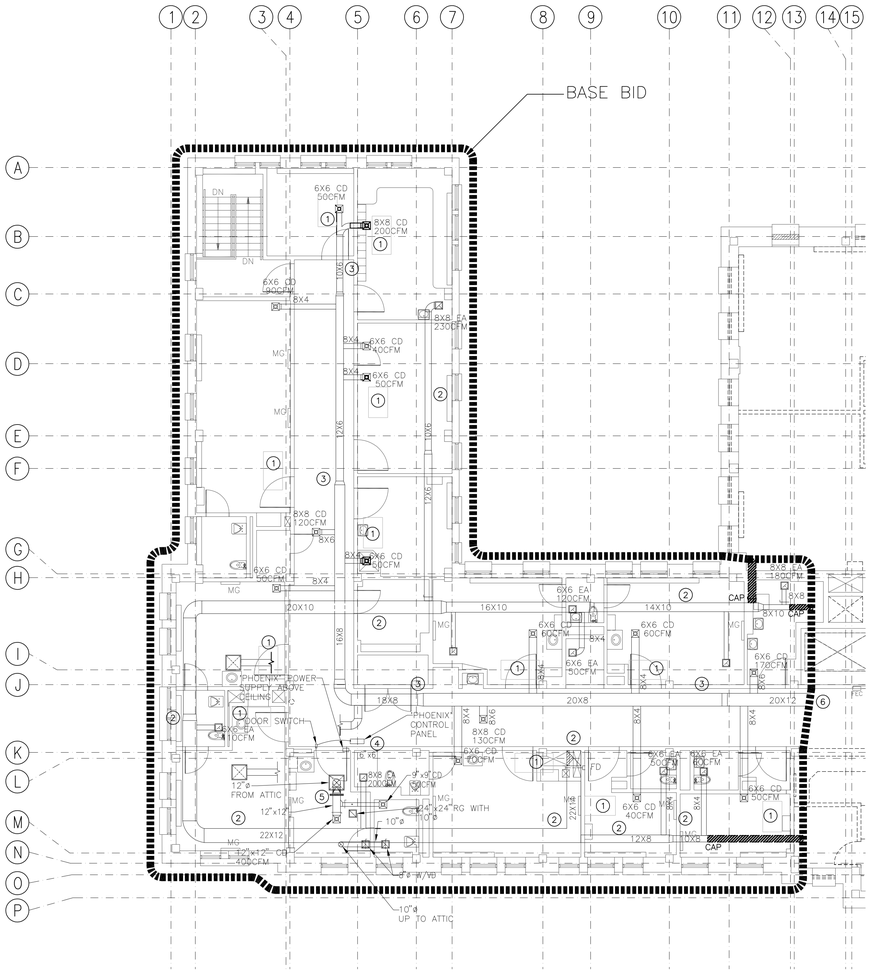
PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DATE: 07/12/2013
PROJECT NO. 531-320
DRAWING NO. M1.4

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 THIRD FLOOR AIRSIDE HVAC DEMOLITION PLAN–BASE BID

SCALE: 1/8" = 1'–0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

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F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. BASE–BID – FCU, CONTROLS, DUCT, AND DIFFUSERS TO REMAIN IN SERVICE.
2. BASE–BID – EXHAUST DUCT, AND GRILLES TO REMAIN IN SERVICE.
3. BASE–BID – VENTILATION SUPPLY DUCT, AND GRILLES TO REMAIN IN SERVICE.
4. EXISTING PHOENIX CONTROL VALVE AND ASSOCIATED CONTROLS TO REMAIN IN SERVICE.
5. EXISTING ISOLATION ROOM SUPPLY DUCT, DIFFUSERS, AND CONTROLS TO REMAIN IN SERVICE.
6. PREP FOR CONNECTION UNDER NEW WORK.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1–1/4")	(N)31.8MM (1–1/4")
(E)38.1MM (1–1/2")	(N)38.1MM (1–1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2–1/2")	(N)63.5MM (2–1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

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CAD FILE NAME: 531–320_M1.4A.DWG
XREF FILE NAME: 531–320_30X42TLBK.DWG 531–320_67A3.DWG

DRAWING TITLE: THIRD FLOOR AIRSIDE HVAC DEMOLITION PLAN–BASE BID

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

APPROVED: MEDICAL CENTER DIRECTOR

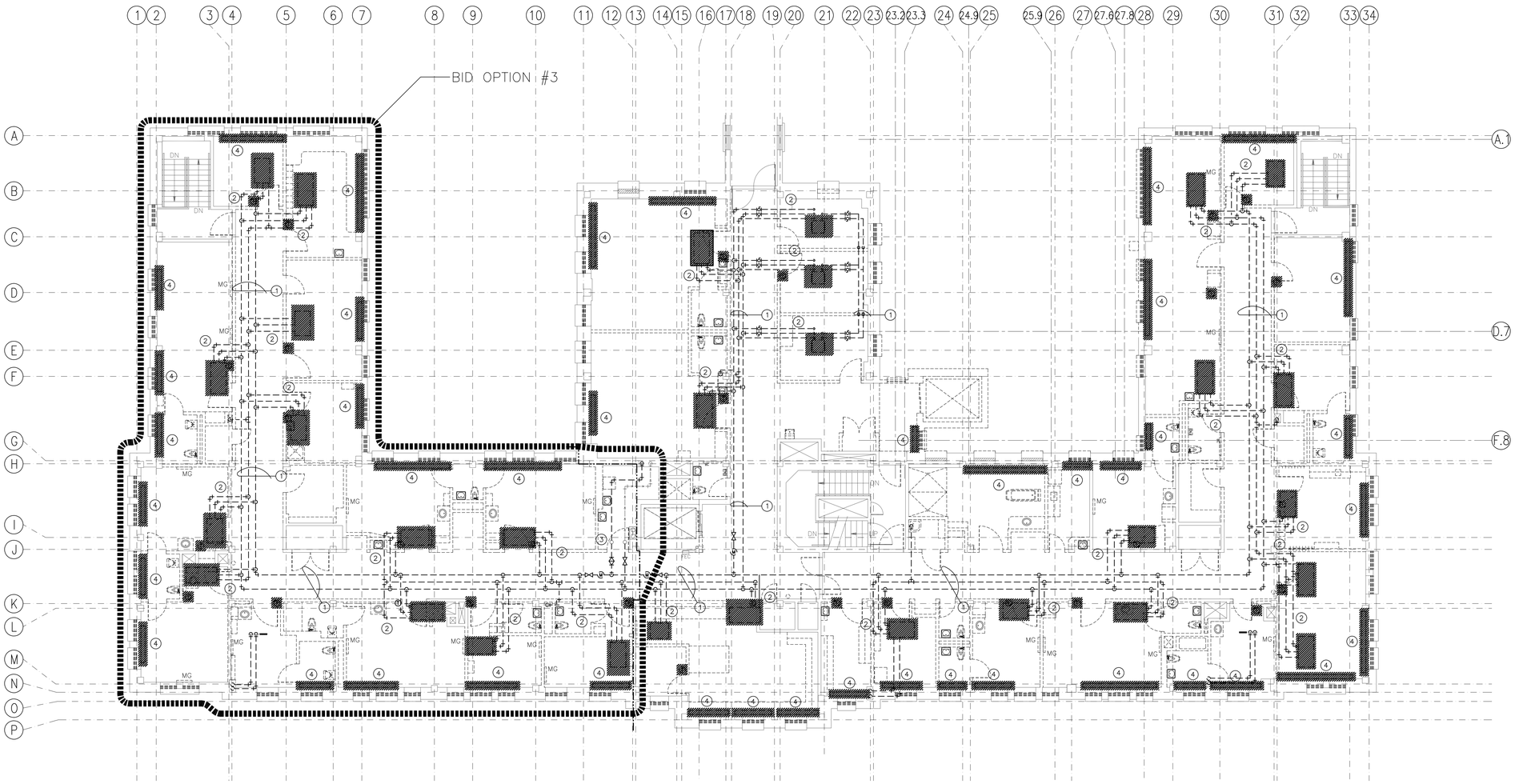
PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

LOCATION: VAMC BOISE, IDAHO

DATE: 07/12/2013
PROJECT NO. 531–320
DRAWING NO. M1.4A
DWG 75 OF 191

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 THIRD FLOOR HYDRONIC HVAC DEMOLITION PLAN

SCALE: 1/8" = 1'-0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

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F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. REMOVE PIPING MAINS AND CONDENSATE DRIP PIPING.
2. REMOVE FCU RUNOUTS AND CONDENSATE DRIP PIPING.
3. PREP FOR CONNECTION UNDER NEW WORK.
4. REMOVE EXISTING FCU/CONVECTOR AND ASSOCIATED CONTROLS.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1-1/4")	(N)31.8MM (1-1/4")
(E)38.1MM (1-1/2")	(N)38.1MM (1-1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2-1/2")	(N)63.5MM (2-1/2")
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REVISIONS	DATE

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CAD FILE NAME: 531-320_M1.5.DWG

XREF FILE NAME: 531-320_30X42TLBK.DWG 531-320_67A3.DWG

DRAWING TITLE: THIRD FLOOR HYDRONIC HVAC DEMOLITION PLAN

PROJECT TITLE: BOISE VAMC BUILDING 67 EXPANSION

DATE: 07/12/2013

PROJECT NO.: 531-320

APPROVED: CHIEF OF FACILITY MANAGEMENT SERVICE

BUILDING NUMBER: 67 | CHECKED: SCH | DRAWN: RP

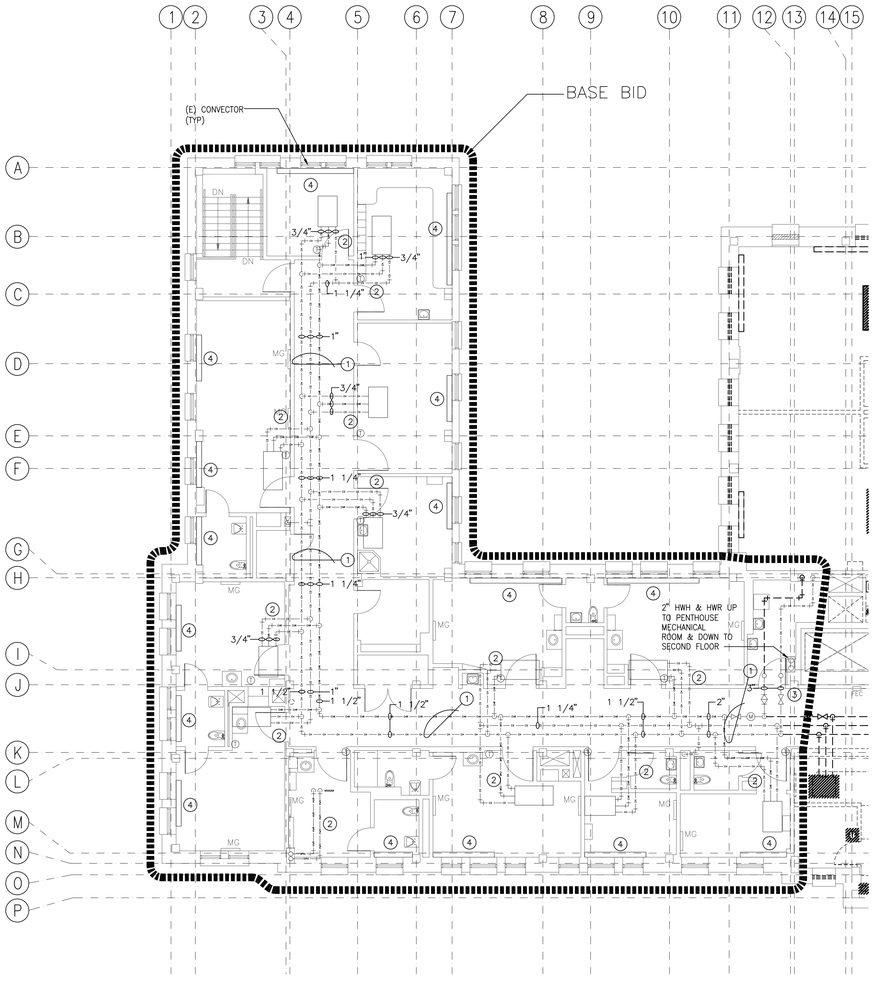
DRAWING NO.: M1.5

APPROVED: MEDICAL CENTER DIRECTOR

LOCATION: VAMC BOISE, IDAHO

DWG 76 OF 191

DEPARTMENT OF VETERANS AFFAIRS



TRUE PLAN

1 THIRD FLOOR HYDRONIC HVAC DEMOLITION PLAN–BASE BID

SCALE: 1/8" = 1'–0"

GENERAL NOTES:

A. SEE GENERAL NOTES ON M0.1 FOR FURTHER REQUIREMENTS.

B. CONTRACTOR SHALL DEMOLISH ALL EXISTING MECHANICAL HVAC CONTROLS, HYDRONIC PIPING, EQUIPMENT AND DUCTWORK SHOWN TO BE REMOVED. EXACT LOCATIONS, SIZES, QUANITIES, AND ROUTING MAY DIFFER FROM DEMOLITION PLANS. FIELD VERIFY JOB SITE PRIOR TO BIDDING. PHASE ROOF PENETRATIONS WITH OTHER TRADES TO MAINTAIN BUILDING ENVELOPE INTEGRITY.

C. PROTECT ALL EXISTING WORK TO REMAIN FROM DAMAGE DURING CONSTRUCTION. ANY MATERIALS, SYSTEMS COMPONENTS, FINISHES AND THE LIKE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO OWNER'S ACCEPTANCE AT CONTRACTOR'S EXPENSE.

D. ALL MATERIALS THAT ARE NOT TO BE RENOVATED OR REUSED SHALL BE DEMOLISHED, BECOME SALVAGE AND THE PROPERTY OF THE CONTRACTOR. DEMOLISHED MATERIALS SHALL BE REMOVED FROM THE PROPERTY IN A TIMELY MANNER, AND SHALL NOT BE STORED ON SITE.

E. EQUIPMENT, DUCTWORK AND PIPE SIZES SHOWN ARE FOR CONTRACTOR'S GENERAL ESTIMATING PURPOSES THESE SIZES HAVE BEEN VERIFIED FROM FIELD OBSERVATION OF GENERAL CONDITIONS WHERE PIPES AND EQUIPMENT ARE VISIBLE. NO PROVISIONS WILL BE MADE FOR DISCREPANCIES IN THESE SIZES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND TAKE MEASUREMENTS PRIOR TO BIDDING. SEE GENERAL NOTES ON M0.1 FOR MORE INFORMATION.

F. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION AND COMMUNICATIONS DRAWINGS FOR ADDITIONAL DEMOLITION OF BUILDING SYSTEMS. COORDINATE PENETRATIONS THROUGH WALLS AND FLOOR/CEILINGS REQUIRED FOR REMOVAL OR INSTALLATION OF PLUMBING SYSTEMS WITH OTHER TRADES TO MINIMIZE DEMOLITION DISRUPTION.

SHEET NOTES:

1. PIPING MAINS AND CONDENSATE DRIP PIPING TO REMAIN IN SERVICE.
2. FCU RUNOUTS AND CONDENSATE DRIP PIPING TO REMAIN IN SERVICE.
3. PREP FOR CONNECTION UNDER NEW WORK.
4. EXISTING FCU/CONVECTOR AND ASSOCIATED CONTROLS TO REMAIN IN SERVICE.

LEGEND:

(E)12.7MM (1/2")	(N)12.7MM (1/2")
(E)19.1MM (3/4")	(N)19.1MM (3/4")
(E)25.4MM (1")	(N)25.4MM (1")
(E)31.8MM (1–1/4")	(N)31.8MM (1–1/4")
(E)38.1MM (1–1/2")	(N)38.1MM (1–1/2")
(E)50.8MM (2")	(N)50.8MM (2")
(E)63.5MM (2–1/2")	(N)63.5MM (2–1/2")
(E)76.2MM (3")	(N)76.2MM (3")
(E)101.6MM (4")	(N)101.6MM (4")
(E)152.4MM (6")	(N)152.4MM (6")

REVISIONS | DATE

CSHQA

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