Improvements for Infection Control Mount Vernon Veterans Home Mount Vernon, Missouri



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OWNER:

STATE OF MISSOURI

MIKE KEHOE, GOVERNOR

PROJECT

OFFICE OF ADMINISTRATION

MANAGEMENT:

DIVISION OF FACILITIES MANAGEMENT,

DESIGN AND CONSTRUCTION

DESIGNER:

CJD ENGINEERING LLC

LOCATION:



PROJECT NUMBER: U2301-04

SITE NUMBER:

6905

FACILITY NUMBER: 8136905001

G-000 COVER SHEET

SHEET INDEX:

G-001 ABBREVIATIONS, NOTES, & SYMBOLS

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E-100 ELECTRICAL PLAN M-100 HVAC PLAN

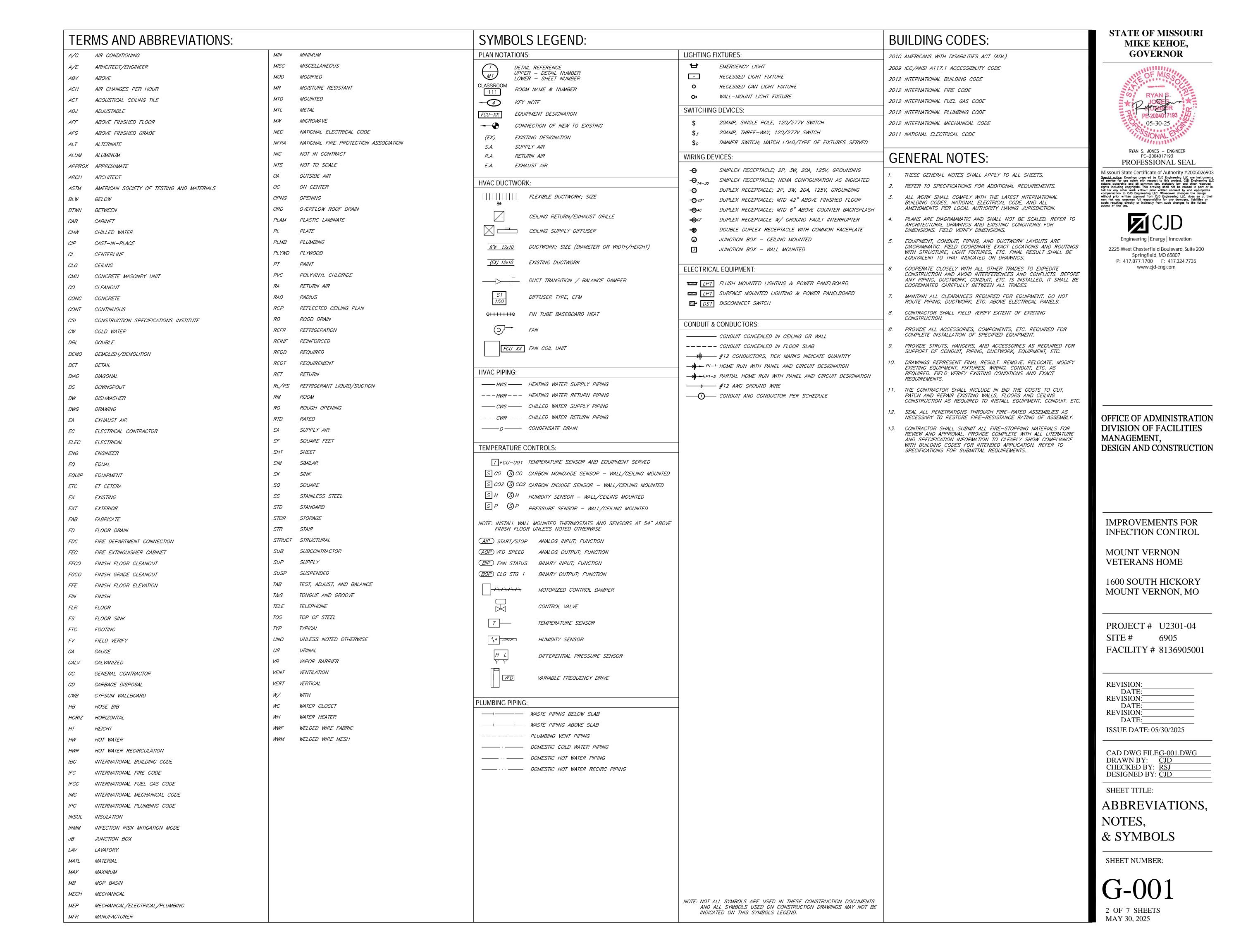
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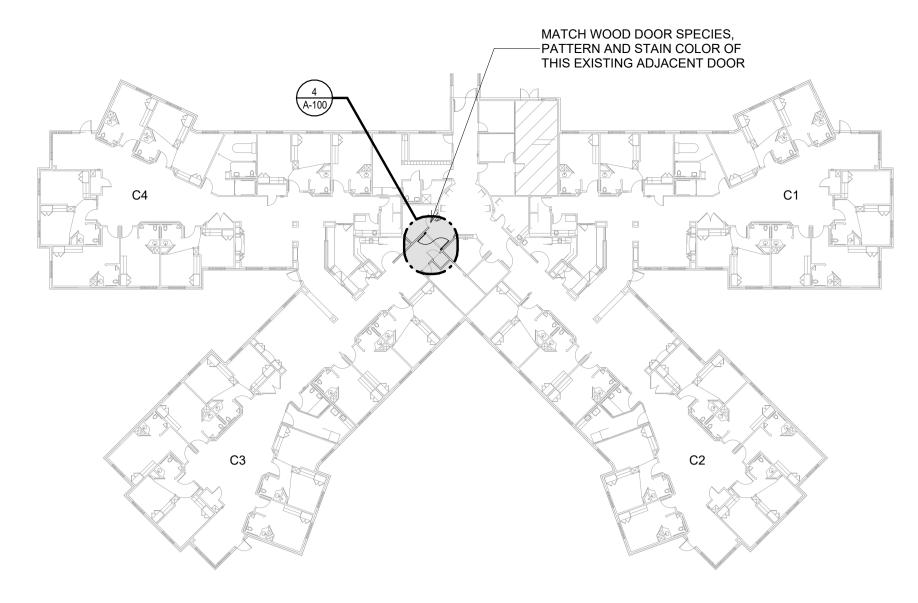
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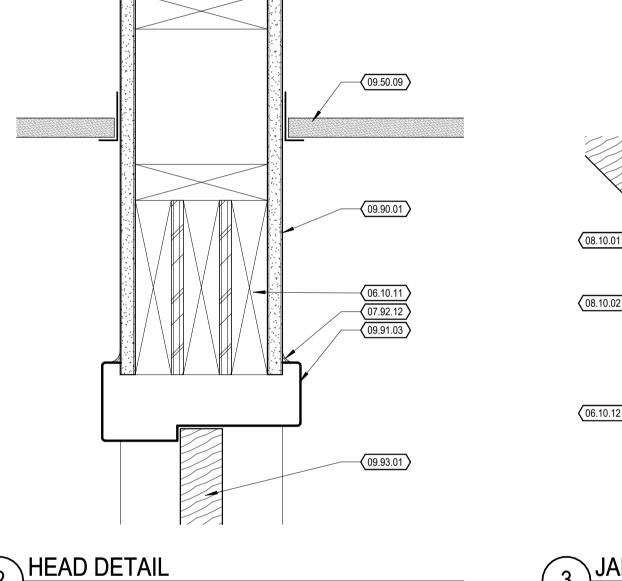
G-000

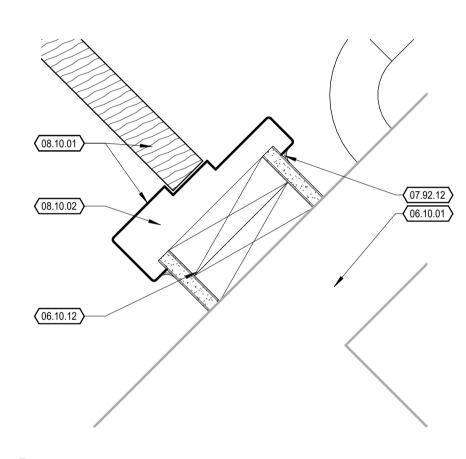
1 OF 7 SHEETS
MAY 30, 2025





\PARTIAL FIRST FLOOR BUILDING C KEY PLAN



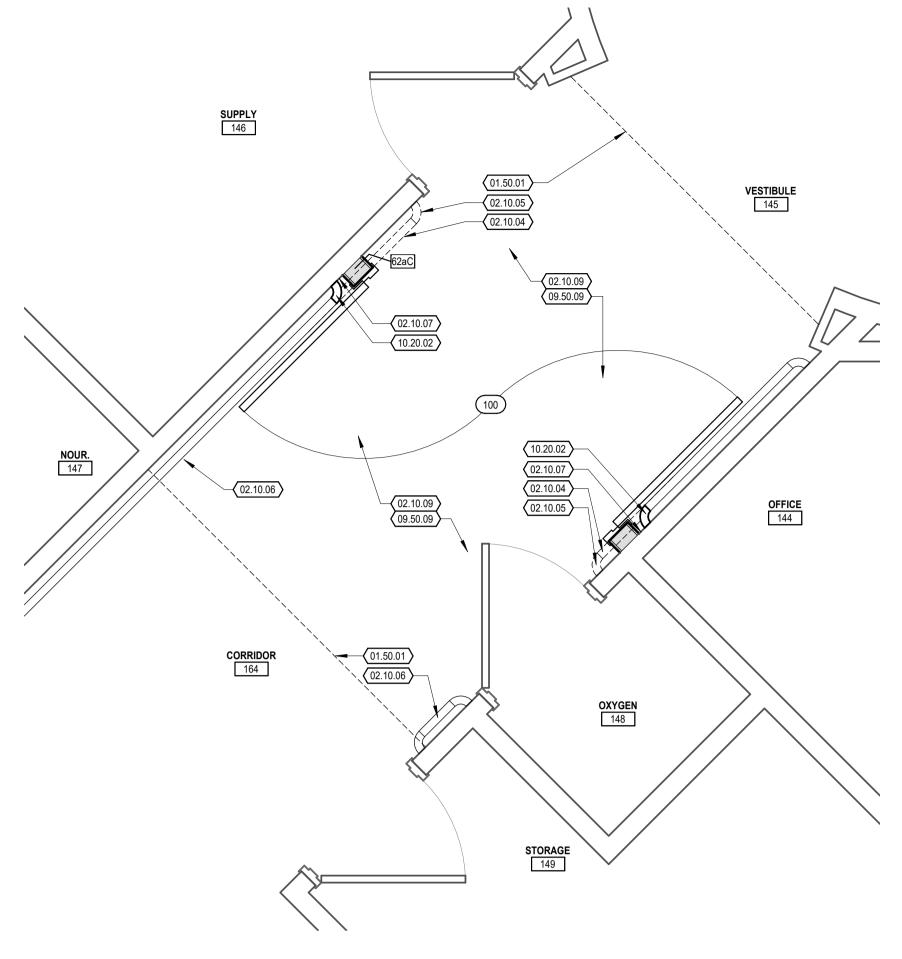




EXAMPLE OF EXISTING DOOR

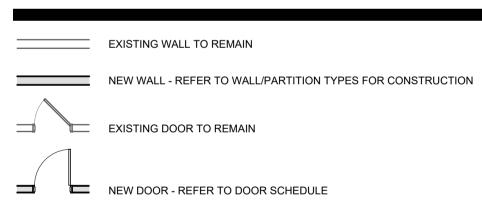


EXAMPLE OF EXISTING WALL CONDITION FOR REFERENCE AT NEW PARTITION WALL N.T.S.



4 ENLARGED FIRST FLOOR PLAN 1/2" = 1'-0"

GRAPHICS LEGEND



DOOR GENERAL NOTES

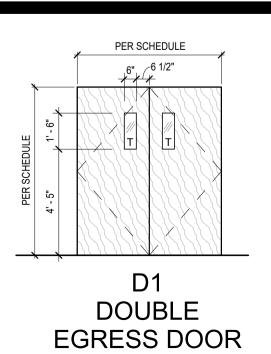
PROVIDE MINIMUM 1/4" TEMPERED SAFETY GLAZING IN ALL DOORS. PROVIDE SHIMS AS NEEDED AT ALL DOORS. PROVIDE CONTINUOUS SEALANT AT PERIMETER OF ALL INTERIOR DOOR FRAMES. INSTALL AFTER WALL COVERING IS INSTALLED. ALL HM FRAMES SHALL BE WELDED. REINFORCE AT STRIKE AREA TO PREVENT FRAME FROM SPREADING AND BUCKLING. GAPS BETWEEN PAIR OF DOORS SHALL BE NO GREATER THAN 1/8". PROVIDE ICC/ANSI A117.1 COMPLIANT HARDWARE, AS REQUIRED BY CODE.

= TEMPERED GLAZING UNIT = HOLLOW METAL = SOLID CORE WOOD DOOR

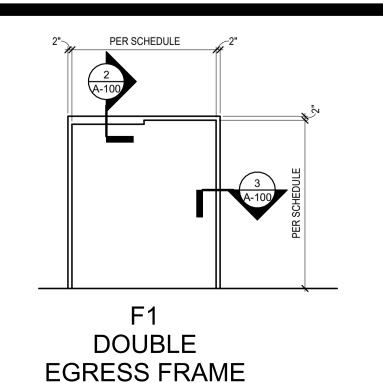
DOOR SCHEDULE

	DOOR SCHEDULE													
			DOOF	₹		FRA	AME							
	SIZE													
MARK	WD HGT THK		TYPE MATL		TYPE	MATL	HARDWARE SET NO.	NOTES						
100	7' - 4"	7' - 0"	0' - 1 3/4"	D1	scw	F1	НМ	1						

DOOR TYPES



FRAME TYPES



KEYNOTE LEGEND

- 01.00.21 SEE SECTION 087100 FOR DOOR HARDWARE. DOOR HARDWARE ON NEW DOOR SHALL MATCH FINISH OF EXISTING DOOR CONTRACTOR PROVIDE TEMPORARY DUST PROTECTION DIVIDER AS REQUIRED. COORDINATE WITH OWNER. EMERGENCY EXIT PATH MUST BE MAINTAINED AT ALL TIMES.
- REMOVE PORTION OF EXISTING WALL GUARDS / HANDRAIL AS SHOWN ON DRAWINGS, MODIFY AS REQUIRED FOR NEW CONSTRUCTION. COMPLETELY REMOVE EXISTING BRACKETS AND ATTACHMENTS, WHERE NO LONGER REQUIRED, AND PATCH AND REPAIR THE WALL IN-KIND, AS
- REMOVE AND SALVAGE EXISTING HANDRAIL AND WALL GUARD END CAPS AT LOCATION OF NEW PARTITION FOR REINSTALLATION ON EACH SIDE OF THE NEW PARTITION. **EXISTING WALL GUARDS / RAIL TO REMAIN**
- REMOVE PORTION OF EXISTING WALL BASE AS REQUIRED FOR INSTALLATION OF NEW PARTITION. 02.10.07 INSTALL NEW WALL BASE TO MATCH EXISTING AT EXISTING WALL AND NEW PARTITION. MATCH EXISTING WAINSCOT FINISH. WALL COVERING SHALL BE OWNER-FURNISHED,
- CONTRACTOR-INSTALLED REMOVE / SALVAGE EXISTING CEILING TILE AND GRID, FULL WIDTH OF CORRIDOR X MIN. 3'-0" FROM NEW WALL, OR AS REQUIRED FOR NEW CONSTRUCTION. STORE FOR REINSTALLATION.
- TRIM / REUSE EXISTING WALL GUARD MATCH EXISTING WALL BASE AT NEW PARTITION WALL AND ADJACENT WALLS WHERE BASE HAD 02.10.11
- TO BE REMOVED FOR INSTALLATION OF THE NEW PARTITION. EXISTING FLOORING TO REMAIN AT NEW PARTITION WALL. TRIM AND REMOVE ONLY AS REQUIRED
- PROVIDE / MATCH EXISTING WAINSCOT TRIM MATCH EXISTING FRAME COLOR. PAINT IS OWNER-FURNISHED, CONTRACTOR-INSTALLED.
- MATCH EXISTING SPECIES, PATTERN, AND STAIN COLOR. STAIN OWNER-FURNISHED, CONTRACTOR-INSTALLED.
- PROVIDE NEW WOOD BLOCKING INSIDE EXISTING WALL AS REQUIRED FOR INSTALLATION OF NEW 06.10.01 **PARTITION WALL**
- **TRIPLE 2X8 WOOD HEADER**
- 06.10.12 PROVIDE DOUBLE STUDS AT JAMBS, TYPICAL, UNLESS NOTED OTHERWISE SEALANT AT PERIMETER OF FRAME, BOTH SIDES. 07.92.12
- DOOR AND FRAME PER DOOR SCHEDULE. 08.10.02
- PROVIDE 3 HOLLOW METAL FRAME ANCHORS PER JAMB. REMOVE EXISTING ACOUSTICAL CEILING TILE SYSTEM AS REQUIRED TO INSTALL NEW PARTITION WALL. SALVAGE AND REUSE EXISTING TILES AND GRID IF POSSIBLE AND IN GOOD CONDITION. REINSTALL NEW ACOUSTICAL CEILING TILE SYSTEM TO MATCH EXISTING ON BOTH SIDES OF NEW
- WALL FINISHES ON NEW PARTITION TO MATCH EXISTING. PAINT, STAIN AND WALL COVERING ARE
- OWNER-FURNISHED, CONTRACTOR-INSTALLED
- PAINT DOOR FRAME TO MATCH EXISTING. PAINT IS OWNER-FURNISHED, CONTRACTOR-INSTALLED.
- STAIN WOOD DOOR TO MATCH EXISTING. STAIN IS OWNER-FURNISHED, CONTRACTOR-INSTALLED. REINSTALL SALVAGED HANDRAIL AND WALL GUARD END CAPS WHERE SHOWN.

BUILDING CODE DATA

2012 INTERNATIONAL BUILDING CODE 2012 INTERNATIONAL EXISTING BUILDING CODE 2012 INTERNATIONAL PLUMBING CODE 2012 INTERNATIONAL MECHANICAL CODE 2011 NATIONAL ELECTRIC CODE

TYPES OF CONSTRUCTION: 5A - PROTECTED

BUILDING IS FULLY SPRINKLERED

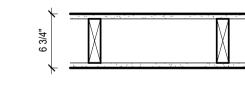
MATERIAL SHALL BE REMOVED.

TOTAL WORK AREA: 70 SF

GENERAL NOTES

- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND ACCURACY OF ALL DIMENSIONS AND IN-FIELD CONDITIONS. ANY DISCREEPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR AND SUBCONTRACTORS SHALL EXAMINE THE PROJECT IN THE
- FIELD TO DETERMINE THE ACTUAL CONDITIONS AND REQUIREMENTS. ALL DIMENSIONS TO EXISTING CONSTRUCTION ARE TO THE FINISH FACE. ALL DIMENSIONS TO NEW CONSTRUCTION ARE TO FACE OF STUD, UNLESS NOTED
- PROVIDE PHOTOGRAPHIC DOCUMENTATION OF EXISTING CONDITIONS PRIOR TO
- STARTING DEMOLITION. PROTECT EXISTING CONSTRUCTION, INCLUDING FINISHES, TO REMAIN DURING
- DEMOLITION AND NEW CONSTRUCTION. CONDUCT SELECTIVE DEMOLITION OPERATIONS AND DEBRIS REMOVAL IN A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ADJACENT OCCUPIED FACILITIES. DEBRIS FROM THE INTERIOR DEMOLITION SITE AND TRANSPORTED THROUGH OCCUPIED AREAS SHALL BE CONTAINED IN A CLEAN, COVERED CART. DEBRIS REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH THE AUTHORITY HAVING JURISDICTION. AT COMPLETION OF DEMOLITION WORK EACH DAY, THE CONSTRUCTION AREA(S) SHALL BE LEFT IN A "BROOM CLEAN" CONDITION. ALL DEBRIS AND MISCELLANEOUS
- THE CONTRACTOR SHALL MAINTAIN THE INTERGRITY OF THE EXISTING BUILDING AND SITE SECURITY AT ALL TIMES AND SHALL TAKE CARE TO KEEP THE AREA SEALED OFF
- WHEN WORK IS IN PROGRESS. NOISE AND DUST LEVELS SHALL BE MINIMIZED AS MUCH AS POSSIBLE DURING CONSTRUCTION IN THE OCCUPIED BUILDING. PROVIDE DUSTPROOF TEMPORARY CONSTRUCTION PARTITIONS AT PERIMETER OF CONSTRUCTION AREAS. CONSTRUCT
- WITH 6-MIL POLYETHYLENE SHEET. CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND/OR REPAIRING ANY DAMAGE CAUSED BY CONSTRUCTION WORK. REFINISH TO MATCH EXISTING
- CONTRACTOR SHALL COORDINATE AND SCHEDULE WITH OWNER ANY NECESSARY ELECTRICAL OR OTHER UTILITY SERVICE INTERRUPTIONS.
- OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL DEMOLITION ITEMS. GENERAL CONTRACTOR SHALL COORDINATE WITH OWNER.
- DEMOLITION IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON DEMOLITION DRAWINGS. THE INTENT IS TO INDICATE THE GENERAL SCOPE OF DEMOLITION REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DO NOT CLOSE, BLOCK OR OBSTRUCT IN ANY WAY EXIT PATHS TO THE EXTERIOR OF
- THE BUILDING. THIS BUILDING WILL REMAIN OCCUPIED DURING CONSTRUCTION AND LIFE SAFETY IS EXTREMELY IMPORTANT. PROVIDE CLEAR SIGNAGE IF EXITS NEED TO BE TEMPORARILY REROUTED DURING CONSTRUCTION.
- DO NOT OBSTRUCT VIEWS OF ANY EXIT SIGNS OR EMERGENCY LIGHTING DURING CONSTRUCTION. PROVIDE APPROPRIATE TEMPORARY SIGNAGE AS REQUIRED.
- REMOVE ALL EXISTING WALL, CEILING AND FLOOR FINISHES AT AREAS TO RECEIVE NEW FINISHES. PREP FLOORS, WALLS AND CEILINGS FOR NEW FINISHES

PARTITION TYPE KEY



INSTALLATION.

62aC WOOD STUD:

- (1) LAYER 5/8" GYPSUM BOARD 2x6 NOM. WOOD STUDS AT 16" O.C. (1) LAYER 5/8" GYPSUM BOARD
- EXTEND 6" ABOVE HIGHEST ADJACENT CEILING

PARTITION TYPE - GENERAL NOTES

- ALL NON-STRUCTURAL STUD FRAMING SHALL BE SPACED AT 16 "O.C. MINIMUM UNLESS NOTED OTHERWISE. ALL PARTITIONS THAT DO NOT EXTEND TO THE UNDERSIDE OF THE DECK,
- FLOOR/CEILING ASSEMBLY OR ROOF ASSEMBLY ABOVE SHALL BE BRACED WITH KICKERS TO UNDERSIDE OF STRUCTURE ABOVE AT 48 "O.C. MINIMUM OR CLOSER AS REQUIRED TO PROVIDE LATERAL STABILITY. KICKERS SHALL BE PLACED BETWEEN 30 AND 45 DEGREES OF VERTICAL. PROVIDE A HEADER AT ALL STUD FRAMED OPENINGS WITH SPANS GREATER THAN
 - PROVIDE DOUBLE STUDS AT ALL FRAMED DOORS. PROVIDE AND COORDINATE WOOD BLOCKING IN WALLS AND CEILINGS AS REQUIRED. PROVIDE GYPSUM BOARD CONTROL JOINTS IN PARTITIONS AND CEILINGS AT
- APPROXIMATELY 30'-0" MAX., OR AS SHOWN ON DRAWINGS. IF NOT SHOWN, COORDINATE LOCATIONS WITH ARCHITECT. PROVIDE NON-SHRINK GROUT AT BOTTOM TRACK OF STUDS AS REQUIRED FOR LEVEL

STATE OF MISSOURI MIKE KEHOE, **GOVERNOR**



PROFESSIONAL SEAL

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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

IMPROVEMENTS FOR INFECTION CONTROL

MOUNT VERNON **VETERANS HOME**

1600 SOUTH HICKORY MOUNT VERNON, MO

PROJECT # U2301-04 FACILITY # 8136905001

REVISION: DATE **REVISION** DATE: REVISION: DATE:

ISSUE DATE: 05/30/2025

CAD DWG FILE: A-100.DWG DRAWN BY: CHECKED BY

SHEET TITLE:

DESIGNED BY

ARCHITECTURAL **DETAILS**

SHEET NUMBER:

3 OF 7 SHEETS

MAY 30, 2025



KEYNOTES:

CIRCUIT THROUGH EXISTING PANELBOARD AS NOTED ON PLAN.
PROVIDE RELAY AND CONTROL WIRING TO CONTROL UNIT THROUGH
BUILDING AUTOMATION SYSTEM.

CIRCUIT TO EXISTING PANELBOARD AS NOTED. REMOVE EXISTING 80-AMP, 3-POLE CIRCUIT BREAKER AND REPLACE WITH 40-AMP, 3-POLE CIRCUIT BREAKER.

3 CIRCUIT TO EXISTING SPARE 20-AMP, SINGLE-POLE CIRCUIT BREAKER IN EXISTING PANELBOARD.

4 PROVIDE NEW EXIT SIGN TO MATCH EXISTING. WIRE TO EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT SERVING CORRIDOR.

CONDUIT & CONDUCTOR SCHEDULE:

(4) #8 AND (1) #10 GROUND IN 0.75" CONDUIT.

STATE OF MISSOURI MIKE KEHOE, GOVERNOR



RYAN S. JONES – ENGINEER PE-2004017193 PROFESSIONAL SEAL

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MOUNT VERNON VETERANS HOME

1600 SOUTH HICKORY MOUNT VERNON, MO

PROJECT # U2301-04 SITE # 6905 FACILITY # 8136905001

DATE:
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DATE:
ISSUE DATE: 05/30/2025

REVISION:

CAD DWG FILE: E-100.DWG
DRAWN BY: QCJ
CHECKED BY: RSJ

SHEET TITLE:

ELECTRICAL PLAN

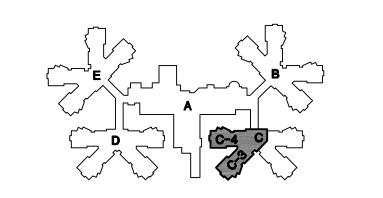
DESIGNED BY: QCJ

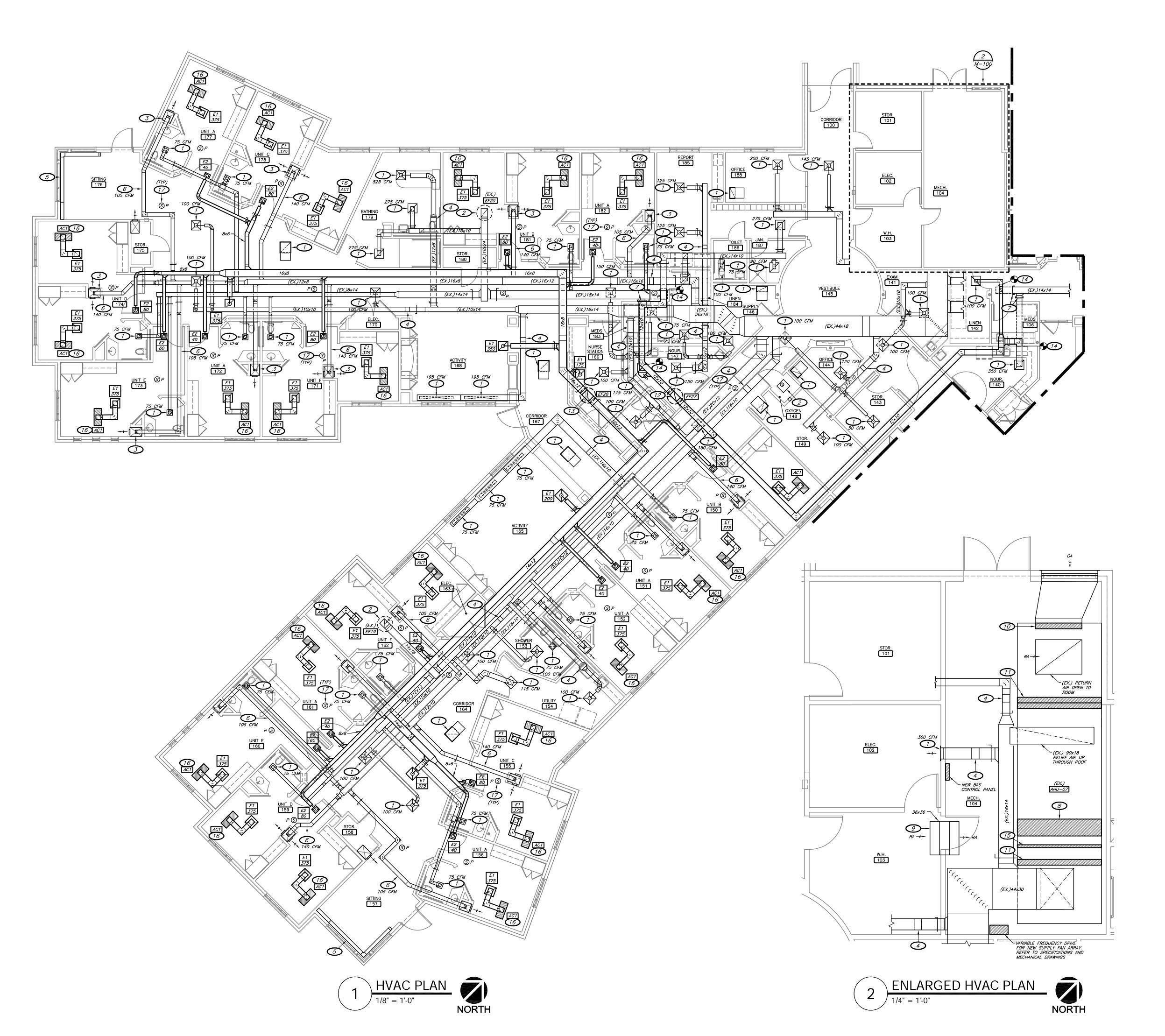
SHEET NUMBER:

E-100

4 OF 7 SHEETS
MAY 30, 2025

KEY PLAN:





KEYNOTES:

- 1 EXISTING AIR DEVICE SHALL REMAIN. BALANCE TO AIRFLOW SHOWN ON PLAN.
- 2 EXISTING EXHAUST FAN SHALL REMAIN.
- 3 EXISTING FAN COIL UNIT SHALL REMAIN.
- 4 EXISTING REHEAT COIL SHALL REMAIN.
- 5 EXISTING FIN TUBE RADIATOR SHALL REMAIN.
- 6 EXISTING BRANCH DUCT SHALL REMAIN. BALANCE TO AIRFLOW SHOWN ON PLAN.
- 7 REMOVE EXISTING EXHAUST DUCT AND CAP END WHERE INDICATED. FIELD VERIFY EXACT SIZE, LOCATION AND REQUIREMENTS.
- 8 EXISTING AIR HANDLING UNIT SHALL REMAIN. REMOVE EXISTING PLUG FAN AND REPLACE WITH NEW FAN ARRAY AS INDICATED ON THE AIR HANDLING UNIT SCHEDULE.
- 9 EXISTING TRANSFER BOOT SHALL REMAIN.
- 10 PROVIDE NEW OUTSIDE AIR DAMPER AS INDICATED ON THE AIR HANDLING UNIT SCHEDULE. FIELD VERIFY EXACT SIZE AND REQUIREMENTS.
- PROVIDE NEW PRE-FILTERS AND FINAL FILTERS FOR EXISTING AIR HANDLING UNIT. FIELD VERIFY EXACT SIZES AND REQUIREMENTS.
- 20"x12" EXHAUST AIR DUCT UP TO EXHAUST FAN ON ROOF.
 TRANSITION TO FAN OPENING SIZE AND PROVIDE FLEXIBLE
 CONNECTION.
- 20"x16" EXHAUST AIR DUCT UP TO EXHAUST FAN ON ROOF.
 TRANSITION TO FAN OPENING SIZE AND PROVIDE FLEXIBLE
 CONNECTION.
- 14 CONNECT NEW EXHAUST AIR DUCT TO EXISTING EXHAUST DUCT.

 15 PROVIDE NEW UV—C LIGHTS IN FAN SECTION OF EXISTING AIR
- HANDLING UNIT AS INDICATED ON THE AIR HANDLING UNIT SCHEDULE. FIELD VERIFY EXACT SIZE AND REQUIREMENTS.

 16 INSTALL NEW AIR CLEANER AND ASSOCIATED EXHAUST GRILLE IN EXISTING GYPSUM BOARD CEILING NEAR PATIENT BED LOCATION.
- EXISTING GYPSUM BOARD CEILING NEAR PATIENT BED LOCATION.

 CONNECTING DUCT SHALL BE 12"x8" OR EQUIVALENT SIZE. VERIFY

 EXACT PLACEMENT IN CEILING WITH OWNER/ENGINEER AND

 COORDINATE WITH EXISTING LIGHTING, STRUCTURE, CEILING FRAMING,

 ETC. REPAIR CEILING AS REQUIRED AND MATCH SURROUNDING

 FINISH.
- SPACE PRESSURE SENSOR. COORDINATE EXACT LOCATION WITH ENGINEER AND WITH EXISTING LIGHTING, AIR DEVICES, STRUCTURE, CEILING FRAMING, ETC.

SPECIAL NOTES:

- 1. TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED FOR ALL MECHANICAL EQUIPMENT WITHIN AREAS C-3 AND C-4, AND FOR THE ENTIRE FACILITY. EQUIPMENT IN AREAS C-3 AND C-4 SHALL BE BALANCED TO AIR AND WATER FLOWS INDICATED ON THESE CONSTRUCTION DOCUMENTS. ALL OTHER EQUIPMENT SHALL BE BALANCED TO MOST RECENT AIR AND WATER FLOWS INDICATED ON EXISTING DRAWINGS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER/OWNER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 2. THE ENTIRE FACILITY IS TO BE RETRO—COMMISSIONED UNDER A SEPARATE CONTRACT. MECHANICAL EQUIPMENT AND CONTROLS FOR AREAS C—3 AND C—4 SHALL BE SEPARATELY COMMISSIONED AS PART OF THIS INFECTION CONTROL PROJECT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- 3. THE ENTIRE FACILITY IS TO RECEIVE A NEW BUILDING
 AUTOMATION SYSTEM (BAS) UNDER A SEPARATE CONTRACT.
 THE BAS REPLACEMENT PROJECT WILL LIKELY BE
 CONCURRENT WITH THIS INFECTION CONTROL PROJECT.
 CONTRACTOR(S) FOR THIS PROJECT SHALL BE RESPONSIBLE
 FOR ALL BAS INSTALLATION AND COMPONENTS WITHIN AND
 ASSOCIATED WITH AREAS C-3 AND C-4, AND SHALL
 COORDINATE THE WORK, INCLUDING TAB AND COMMISSIONING,
 WITH BAS REPLACEMENT PROJECT CONTRACTOR(S).

STATE OF MISSOURI MIKE KEHOE, GOVERNOR



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CAD DWG FILE:M-100.DWG
DRAWN BY: QCJ
CHECKED BY: RSJ

SHEET TITLE:

HVAC PLAN

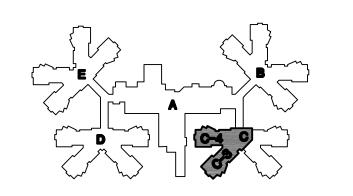
DESIGNED BY: QCJ

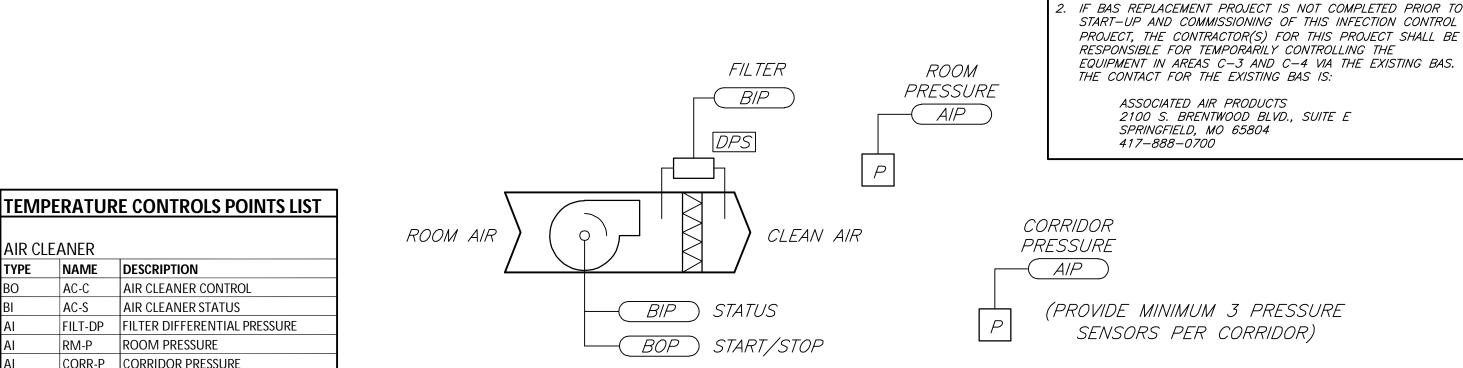
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M-100

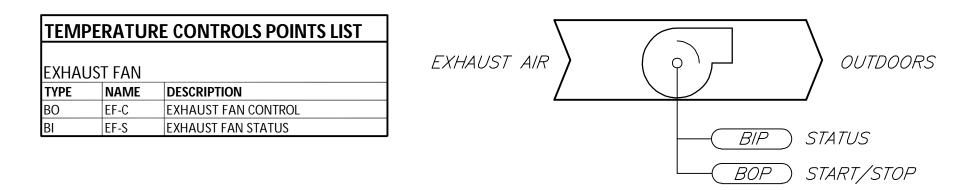
5 OF 7 SHEETS
MAY 30, 2025

KEY PLAN:

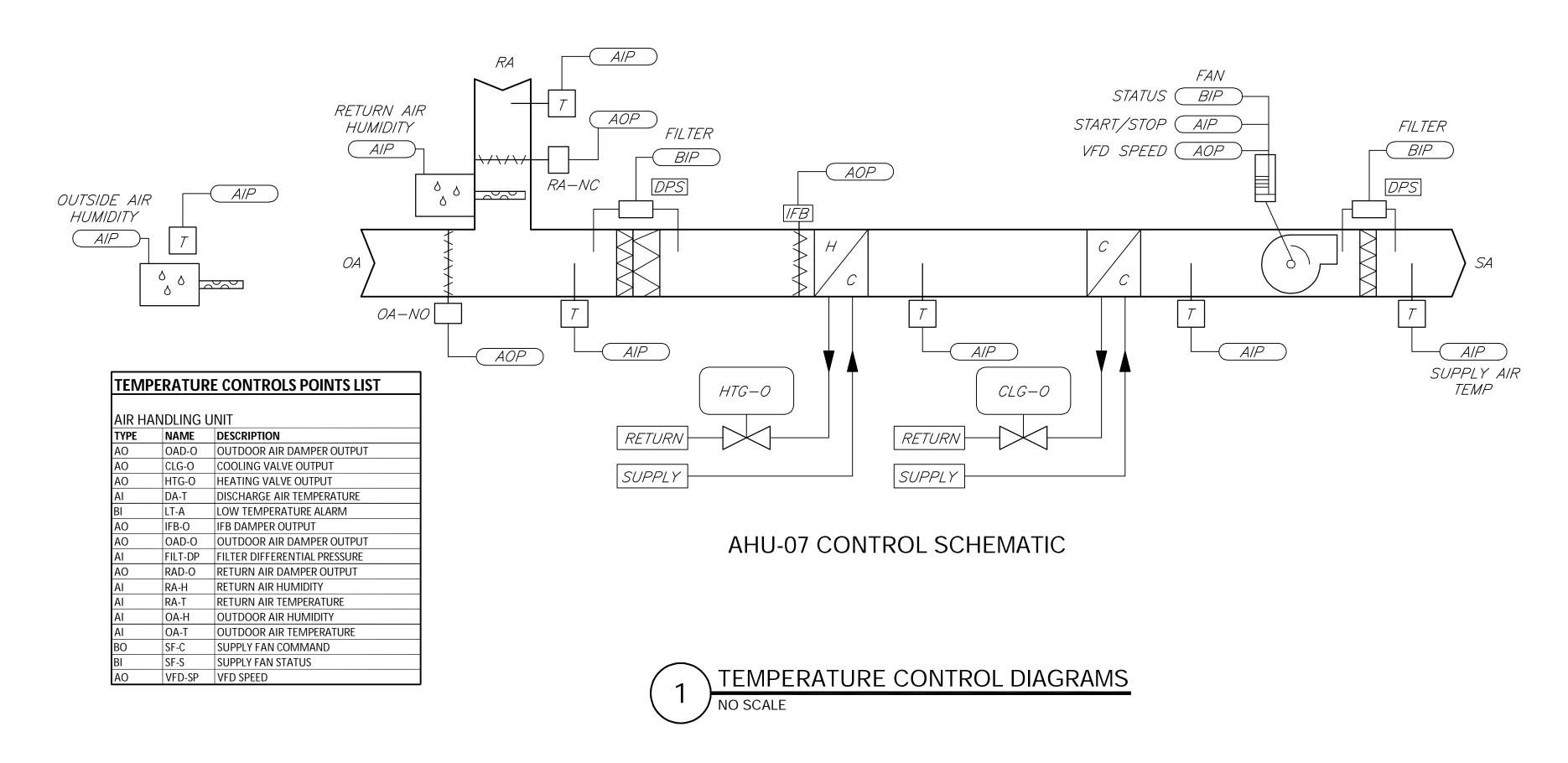




TYPICAL AIR CLEANER CONTROL SCHEMATIC



TYPICAL EXHAUST FAN CONTROL SCHEMATIC



SEQUENCES OF OPERATION:

<u>AHU-7 CONTROL SEQUENCE</u>

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER
OCCUPIED BYPASS, OCCUPIED / UNOCCUPIED / INFECTION RISK
MITIGATION AND HEAT / COOL MODES. IF COMMUNICATION IS LOST WITH
THE BAS, THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND

OCCUPIED MODE:

SPECIAL NOTES:

THE ENTIRE FACILITY IS TO RECEIVE A NEW BUILDING

CONCURRENT WITH THIS INFECTION CONTROL PROJECT.

CONTRACTOR(S) FOR THIS PROJECT SHALL BE RESPONSIBLE

ASSOCIATED WITH AREAS C-3 AND C-4, AND SHALL

WITH BAS REPLACEMENT PROJECT CONTRACTOR(S).

THE BAS REPLACEMENT PROJECT WILL LIKELY BE

AUTOMATION SYSTEM (BAS) UNDER A SEPARATE CONTRACT.

FOR ALL BAS INSTALLATION AND COMPONENTS WITHIN AND

COORDINATE THE WORK, INCLUDING TAB AND COMMISSIONING,

DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY AT SCHEDULED OCCUPIED AIRFLOW AND THE OUTSIDE AIR DAMPER SHALL OPEN FULLY TO MAINTAIN OCCUPIED VENTILATION REQUIREMENTS. THE RETURN AIR DAMPER SHALL CLOSE FULLY AND THE VENTILATION RELIEF DAMPER SHALL MODULATE TO MAINTAIN BUILDING PRESSURE. THE UNIT CHILLED AND HOT WATER COILS SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE SETPOINT.

UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING
SETPOINT OF 60.0 DEG. F (ADJ.) OR ABOVE THE UNOCCUPIED COOLING
SETPOINT OF 80.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL RUN
CONTINUOUSLY AT SCHEDULED UNOCCUPIED AIRFLOW AND THE OUTSIDE
AIR DAMPER SHALL REMAIN CLOSED. THE UNIT CHILLED AND HOT WATER
COIL SHALL MODULATE TO MAINTAIN DISCHARGE AIR TEMPERATURE
SETPOINT. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED
HEATING SETPOINT OF 60.0 DEG. F (ADJ.) OR DROPS BELOW THE
UNOCCUPIED COOLING SETPOINT OF 80.0 DEG. F (ADJ.) PLUS OR MINUS
THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN
SHALL STOP AND THE UNIT CHILLED AND HOT WATER COILS SHALL CLOSE.

INFECTION RISK MITIGATION MODE: DURING IRMM PERIODS, THE AIR HANDLER SHALL BE SET TO OCCUPIED MODE.

OCCUPIED BYPASS:

THE BAS SHALL MONITOR THE STATUS OF THE "ON" AND "CANCEL" BUTTONS OF THE SPACE TEMPERATURE SENSORS. WHEN AN OCCUPIED BYPASS REQUEST IS RECEIVED FROM A SPACE SENSOR, THE UNIT SHALL TRANSITION FROM ITS CURRENT OCCUPANCY MODE TO OCCUPIED BYPASS MODE AND THE UNIT SHALL MAINTAIN THE OCCUPIED SETPOINTS (ADJ.) FOR A SPECIFIED PERIOD OF TIME (ADJ.).

SUPPLY AIR TEMPERATURE RESET CONTROL:
THE DISCHARGE AIR TEMPERATURE SETPOINT, 52.0 DEG. F - 65.0 DEG.
F (ADJ.) SHALL BE RESET BASED ON EITHER THE OUTSIDE AIR
TEMPERATURE OR SPACE AVERAGE TEMPERATURE (ADJ.). THE MINIMUM
DISCHARGE AIR SETPOINT SHALL BE SET AT 52.0 DEG. F (ADJ.). IF THE
DISCHARGE AIR TEMPERATURE FALLS MORE THAN 2 DEG. F (ADJ.) BELOW
THE MINIMUM DISCHARGE AIR SETPOINT, A LOW TEMPERATURE ALARM
SHALL BE ANNUNCIATED, AND THE UNIT SHALL SHUT DOWN. IF THE
DISCHARGE TEMPERATURE RISES MORE THAN 2 DEG. F (ADJ.) ABOVE THE
MAXIMUM DISCHARGE AIR SETPOINT, A HIGH TEMPERATURE ALARM SHALL
BE ANNUNCIATED.

OUTDOOR AIR TEMPERATURE RESET: THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE ADJUSTED BASED ON THE OUTSIDE AIR TEMPERATURE.

SPACE TEMPERATURE RESET: THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE ADJUSTED BASED ON THE TEMPERATURE OF THE CRITICAL SPACE(S).

THE SUPPLY AIR SENSOR SHALL MEASURE THE DRY BULB TEMPERATURE
OF THE AIR LEAVING THE CHILLED WATER COIL WHILE ECONOMIZING. WHEN
ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN OCCUPIED
MODE, THE CHILLED AND HOT WATER COILS SHALL MODULATE TO
MAINTAIN THE DISCHARGE AIR TEMPERATURE SETPOINT. WHEN
ECONOMIZING IS ENABLED AND THE UNIT IS OPERATING IN UNOCCUPIED
MODE, THE ECONOMIZER DAMPER SHALL BE MODULATED BETWEEN ITS
MINIMUM POSITION AND 100% TO MAINTAIN THE DISCHARGE AIR
TEMPERATURE SETPOINT. IN UNOCCUPIED MODE, THE ECONOMIZER
DAMPER SHALL MODULATE TOWARD MINIMUM POSITION IN THE EVENT THE
MIXED AIR TEMPERATURE FALLS BELOW THE LOW LIMIT TEMPERATURE

EXHAUST FANS CONTROL SEQUENCE

BUILDING AUTOMATION SYSTEM INTERFACE:
THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND A SIGNAL TO THE
CONTROLLERS TO INDICATE OCCUPIED / UNOCCUPIED, OCCUPIED BYPASS,
AND INFECTION RISK MITIGATION MODES.

DURING OCCUPIED PERIODS, EXHAUST FANS EF-17, EF-18, EF-19, EF-20, AND EF-28 SHALL RUN CONTINUOUSLY TO MAINTAIN ASHRAE 170 AIR CHANGE AND PRESSURIZATION REQUIREMENTS.

UNOCCUPIED MODE: DURING UNOCCUPIED PERIODS, ALL EXHAUST FANS SHALL STOP RUNNING.

INFECTION RISK MITIGATION MODE:

DURING IRMM PERIODS, EXHAUST FANS EF-17, EF-18, EF-19, EF-20,

AND EF-28 SHALL REMAIN RUNNING, AND EXHAUST FAN EF-27 SHALL

BE ENERGIZED AND RUN CONTINUOUSLY TO MAINTAIN ASHRAE 170

PRESSURIZATION REQUIREMENTS.

AIR CLEANER CONTROL SEQUENCE

BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM INTERFACE:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND A SIGNAL TO THE AIR CLEANER CONTROLLERS TO INDICATE NORMAL AND INFECTION RISK MITIGATION MODES.

INFECTION RISK MITIGATION MODE: DURING IRMM PERIODS, ALL AIR CLEANERS SHALL RUN CONTINUOUSLY TO MAINTAIN ASHRAE 170 AIR CHANGE AND PRESSURIZATION REQUIREMENTS.

SPACE PRESSURE MONITORING:
SPACE PRESSURE SENSORS SHALL BE INSTALLED IN C-3 AND C-4
CORRIDORS (MINIMUM 3 PER CORRIDOR) AND IN ALL ROOMS WITH AIR
CLEANERS TO MEASURE DIFFERENTIAL PRESSURE. AN ALARM SHALL BE
GENERATED AT THE BAS IF THE PRESSURE BECOMES POSITIVE IN ANY
AIRBORNE INFECTION ISOLATION ROOM.

STATE OF MISSOURI MIKE KEHOE, GOVERNOR



RYAN S. JONES – ENGINEER PE-2004017193 PROFESSIONAL SEAL

Missouri State Certificate of Authority #2005026903

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OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

IMPROVEMENTS FOR INFECTION CONTROL

MOUNT VERNON VETERANS HOME

1600 SOUTH HICKORY MOUNT VERNON, MO

PROJECT # U2301-04 SITE # 6905 FACILITY # 8136905001

REVISION:
DATE:
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 05/30/2025

CAD DWG FILE:M-500.DWG
DRAWN BY: QCJ
CHECKED BY: RSJ

SHEET TITLE:

DESIGNED BY: QCJ

MECHANICAL DETAILS

SHEET NUMBER:

M-500

6 OF 7 SHEETS MAY 30, 2025

AIR HANDLING UNIT SCHEDULE																					
MARK	MANUFACTURER	SA	OA		EXISTING CHILLED WATER COIL EXISTING HOT WATER COIL							NE	W SUPPLY FAN	1	VOLTAGE/	MCA	МОСР	NOTES			
		CFM	CFM	EAT (DB/WB)	LAT (DB/WB)	EWT/LWT	GPM	WPD (FT HD)	FPI	LAT (DB)	EWT/LWT	GPM	WPD (FT HD)	FPI	ESP (IN. W.C.)	TSP (IN. W.C.)	HP	PHASE	WCA	MOCF	NOTES
AHU-07	ENERGY LABS INC. (EXISTING)	11,255	11,255	95.0 / 74.3	52.0 / 50.8	42.0 / 54.0	144.2	15.0	8	65	180.0 /150.0	34.7	10.0	10	4.5"	6.75"	(4) 4.5	480/3	34.0	40	1,2,3,4,5,6,7

1. REBALANCE AIRFLOW TO SCHEDULED FLOW RATES.

2. REBALANCE WATER FLOW THROUGH COILS TO SCHEDULED FLOW RATES AND FIELD VERIFY WATER TEMPERATURES.
3. REPLACE ALL EXISTING FILTERS WITH NEW.

3. REPLACE ALL EXISTING FILTERS WITH NEW.
4. REPLACE EXISTING SUPPLY AIR FAN WITH NEW 2x2 ECM FAN ARRAY WITH VARIABLE SPEED CONTROL EQUIVALENT TO NORTEK FANWALL MODEL HPF-A100 GEN III WITH ISOLATORS. PROVIDE ASSOCIATED BACKDRAFT DAMPERS.

5. REPLACE EXISTING VFD WITH NEW EQUIVALENT TO YASKAWA CIMR-ZU4A0021FAA. REFER TO SPECIFICATIONS AND COORDINATE WITH ELECTRICAL CONTRACTOR.

6. REPLACE EXISTING OUTSIDE AIR DAMPER/ACTUATOR WITH NEW SINGLE SECTION DAMPER AS NOTED.
7. PROVIDE NEW GERMICIDAL UV-C LIGHTS IN EXISTING AIR HANDLING UNIT IN DISCHARGE AIR PLENUM DOWNSTREAM OF SUPPLY FAN EQUIVALENT TO UV RESOURCES RLM XTREME.

AIR BALANCE SCHEDULE

ROOM#	ROOM NAME	ROOM TYPE	OCCUPANCY (# OF PEOPLE)	OA ACH REQUIRED BY ASHRAE 170	ACTUAL OA ACH	TOTAL ACH REQUIRED BY ASHRAE 170	ACTUAL TOTAL ACH	ECA REQUIRED BY ASHRAE 241 (CFM)	ACTUAL ECA	SA CFM	AIR CLEANER CFM	OA CFM	EA CFM	PRESSURIZATION	POSITIVE %	NEGATIVE %
100	CORRIDOR	CORRIDOR	0	0	3.0	0	3.0	0	145	145	0	145	0	POSITIVE	100%	-
101 102	STORAGE ELEC	CORRIDOR CORRIDOR	0	0	2.9 18.4	0	2.9	0	65 360	65 360	0	65 360	0	POSITIVE POSITIVE	100%	-
103	W.H.	CORRIDOR	0	0	7.1	0	7.1	0	150	150	0	150	0	POSITIVE	100%	-
104	MECH	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
105	LINENS	CORRIDOR	0	0	5.2	0	12.2	0	75	75	0	75	100	NEGATIVE	-	25%
106	MEDS	CORRIDOR	0	0	8.5	0	8.5	0	75	75	0	75	0	POSITIVE	100%	-
107	UNIT A	PATIENT	1	2	2.0	0	3.8	70	85	460	0	85	75	POSITIVE	12%	-
108	UNIT B	PATIENT	2	2	2.1	0	3.2	140	140	640	0	140	75	POSITIVE	46%	-
109	STORAGE	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
110 111	BATHING UNIT C	RESTROOM PATIENT	2	0 2	10.0 2.1	10 0	20.5 3.2	0 140	525 140	525 640	0	525 140	550 75	NEGATIVE POSITIVE	46%	5%
112	UNIT A	PATIENT	1	2	2.0	0	3.8	70	85	460	0	85	75	POSITIVE	12%	-
113	SITTING	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
114	STORAGE	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
115	UNIT D	PATIENT	2	2	2.0	0	3.1	140	140	640	0	140	75	POSITIVE	46%	-
116	UNIT E	PATIENT	1	2	2.0	0	3.5	70	105	460	0	105	75	POSITIVE	29%	-
117	UNIT A	PATIENT	1	2	2.1	0	3.9	70	85	460	0	85	75	POSITIVE	12%	-
118	UNIT F	PATIENT	2	2	2.3	0	3.5	140	140	640	0	140	75	POSITIVE	46%	-
119 120	ELEC CORRIDOR	CORRIDOR CORRIDOR	0	0	0.0 2.2	0	0.0 2.2	0	0 400	400	0	400	0	NEUTRAL POSITIVE	100%	-
121	DINING/ACTIVITY	ACTIVITY	0	4	9.6	0	9.6	0	390	390	0	390	0	POSITIVE	100%	-
122	NURSE STATION	COMMON SPACE	4	0	6.0	0	6.0	200	200	200	0	200	0	POSITIVE	100%	-
123	CORRIDOR	CORRIDOR	0	0	4.3	0	4.3	0	200	200	0	200	0	POSITIVE	100%	-
124	ACTIVITY	ACTIVITY	0	4	4.3	0	4.3	0	225	225	0	225	0	POSITIVE	100%	-
125	CORRIDOR	CORRIDOR	0	0	2.0	0	2.0	0	450	450	0	450	0	POSITIVE	100%	-
126	ELEC	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	400/	-
127	UNIT A	PATIENT	2	2	2.1	0	3.2	140	140	640	0	140	75	POSITIVE	46% 12%	-
128 129	UNIT A UNIT E	PATIENT PATIENT	1	2	2.0	0	3.8	70 70	85 105	460 460	0	85 105	75 75	POSITIVE POSITIVE	29%	-
130	UNIT D	PATIENT	2	2	2.0	0	3.5	140	140	810	0	105	75	POSITIVE	46%	-
131	STORAGE	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
132	SITTING	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
133	UNIT A	PATIENT	1	2	2.0	0	3.8	70	85	460	0	85	75	POSITIVE	12%	-
134	UNIT C	PATIENT	2	2	2.1	0	3.2	140	140	640	0	140	75	POSITIVE	46%	-
135	UTILITY	CORRIDOR	0	0	4.8	0	10.8	0	200	200	0	200	250	NEGATIVE	-	20%
136	SHOWER	RESTROOM	0	0	8.1	10	20.3	0	100	100	0	100	150	NEGATIVE	- 420/	33%
137 138	UNIT A UNIT A	PATIENT PATIENT	1	2	2.0	0	3.8	70 70	85 85	460 460	0	85 85	75 75	POSITIVE POSITIVE	12% 12%	-
139	UNIT B	PATIENT	2	2	2.1	0	3.2	140	140	640	0	140	75	POSITIVE	46%	-
140	NOUR.	CORRIDOR	0	0	6.7	0	14.5	0	150	150	0	150	175	NEGATIVE	-	14%
141	EXAM	COMMON SPACE	2	0	4.6	0	4.6	100	100	100	0	100	0	POSITIVE	100%	-
142	LINENS	CORRIDOR	0	0	5.2	0	12.2	0	75	0	0	75	100	NEGATIVE	-	25%
143	STORAGE	CORRIDOR	0	0	3.5	0	3.5	0	50	50	0	50	0	POSITIVE	100%	-
144	OFFICE	OFFICE	1	0	6.0	0	6.0	0	120	120	0	120	0	POSITIVE	100%	-
145	VESTIBULE	CORRIDOR	0	0	2.6	0	2.6	0	100	100	0	100	0	POSITIVE	100%	-
146 147	SUPPLY NOUR.	CORRIDOR CORRIDOR	0	0	3.0 6.7	0	3.0 14.5	0	50 150	50 150	0	50 150	0 175	POSITIVE NEGATIVE	100%	14%
147	OXYGEN	CORRIDOR	0	0	0.0	0	21.4	0	0	0	0	0	50	NEGATIVE	_	100%
149	STORAGE	CORRIDOR	0	0	3.7	0	3.7	0	100	100	0	100	0	POSITIVE	100%	-
150	UNIT B	AII	2	0	2.1	12	15.4	0	140	640	750	140	155	NEGATIVE	-	10%
151	UNIT A	AII	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	-	26%
152	UNIT A	AII	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	-	26%
153	SHOWER	RESTROOM	0	0	11.8	10	24.4	0	145	145	0	145	155	NEGATIVE	-	6%
154 155	UTILITY UNIT C	CORRIDOR	2	0	3.9 1.9	0 	8.4	0	100 140	100 640	750	100 140	115 155	NEGATIVE NEGATIVE	-	13% 10%
156	UNIT A	All	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	_	26%
157	SITTING	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
158	STORAGE	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
159	UNIT D	AII	2	0	2.0	12	15.2	0	140	810	750	140	155	NEGATIVE	-	10%
160	UNIT E	AII	1	0	2.0	12	12.0	0	105	460	375	105	135	NEGATIVE	-	22%
161	UNIT A	AII	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	-	26%
162	UNIT F	All	2	0	2.1	12	15.4	0	140	640	750	140	155	NEGATIVE	-	10%
163	ELEC	CORRIDOR	0	0	0.0	0	0.0	0	0 400	0	0	400	275	NEUTRAL	6%	-
164 165	CORRIDOR ACTIVITY	CORRIDOR ACTIVITY	0	0 4	1.8 4.3	0	3.5 8.2	0	400 225	400 225	0 0	400 225	375 200	POSITIVE POSITIVE	11%	-
166	NURSE STATION	COMMON SPACE	4	0	5.9	0	11.0	200	200	225	0	200	175	POSITIVE	13%	-
167	CORRIDOR	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
168	ACTIVITY	ACTIVITY	0	4	9.6	0	18.3	0	390	390	0	390	350	POSITIVE	10%	-
169	CORRIDOR	CORRIDOR	0	0	2.6	0	5.0	0	450	450	0	450	400	POSITIVE	11%	-
170	ELEC	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
171	UNITF	AII	2	0	2.1	12	15.4	0	140	640	750	140	155	NEGATIVE	-	10%
172	UNIT A	AII	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	-	26%
173	UNIT E	All	1	0	2.0	12	12.0	0	105	460	375	105	135	NEGATIVE	-	22% 10%
174 175	UNIT D STORAGE	AII CORRIDOR	0	0	2.0	12 0	15.2 0.0	0	140 0	640	750 0	140 0	155 0	NEGATIVE NEUTRAL	-	-
176	SITTING	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
177	UNIT A	All	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	-	26%
178	UNIT C	AII	2	0	2.1	12	15.4	0	140	640	750	140	155	NEGATIVE	-	10%
179	BATHING	RESTROOM	0	0	10.0	10	20.5	0	525	525	0	525	550	NEGATIVE	-	5%
180	ELEC	CORRIDOR	0	0	0.0	0	0.0	0	0	0	0	0	0	NEUTRAL	-	-
181	UNIT B	AII	2	0	2.1	12	15.4	0	140	640	750	140	155	NEGATIVE	-	10%
182	UNIT A	All	1	0	2.0	12	13.5	0	85	460	375	85	115	NEGATIVE	100%	26%
183	MEDS	CORRIDOR	0	0	8.6	0	8.6	0	75 75	75 75	0	75 75	100	POSITIVE	100%	25%
184 185	LINENS REPORT	CORRIDOR OFFICE	0	0	5.2 5.3	0	12.2 11.2	0	75 250	250	0	75 250	100 275	NEGATIVE NEGATIVE	-	9%
186	TLT	RESTROOM	0	0	0.0	10	11.5	0	0	0	0	0	75	NEGATIVE	-	100%
187	JANITOR	JANITOR	0	0	0.0	10	10.3	0	0	0	0	0	90	NEGATIVE	-	100%
188	OFFICE	OFFICE	1	0	10.2	0	10.2	0	200	200		200	0	POSITIVE	100%	-
TOTAL BU	ILDING:								11340			11340	8000	POSITIVE	29%	

NOTES:

1. GRILLE/DIFFUSER NECK SHALL BE SAME SIZE AS BRANCH DUCTWORK UNLESS NOTED OTHERWISE ON PLAN.

PROVIDE SQUARE-TO-ROUND TRANSITION AT DIFFUSER NECK AS REQUIRED.
 PROVIDE SURFACE MOUNT ADAPTER FRAME WHERE INSTALLED IN HARD CEILING.

MARK MANUFACTURER

MARK MANUFACTURER

EF-18 COOK

EF-19 COOK

EF-28 COOK

EF-27

MARK MANUFACTURER

TITUS

TITUS

COOK

COOK

COOK

PROVIDE BIRD SCREEN.

MODEL

GRAVITY BACKDRAFT DAMPER.

NOTES:

1. FACTORY MOUNTED DISCONNECTING MEANS.

REBALANCE AIRFLOW TO SCHEDULED CFM.

NOTES: 1. MERV 7 PRE-FILTER AND HC1837-H14 HEPA FILTER 2. DUCT COLLAR AND DUCT CONNECTION TO CEILING GRILLE.

POWDER COATED STEEL CEILING FRAME. VIBRATION ISOLATION HANGERS. ROOM-SIDE FILTER REPLACEMENT.

. EC MOTOR WITH MANUAL SPEED ADJUSTMENT.

180 ACEB

PROVIDE 14" MINIMUM INSULATED ROOF CURB, SLOPE AS REQUIRED.

SEE PLANS

MAX. DELTA P NC (STATIC) NOTES

25 0.03" 1,2,3

25 0.03" 1,2,3

AIR CLEANER SCHEDULE

 AC1
 TERRA UNIVERSAL
 WHISPERFLOW NARROW 16"x36"
 375
 CEILING
 STD
 120/1
 3.8
 1,2,3,4,5,6,7

FAN SCHEDULE

135 ACEB (EXISTING) 1,150 0.875" ROOF STD GBD 208/3

120 ACEB (EXISTING) 1,075 0.75" ROOF STD GBD 120/1

AIR DEVICE SCHEDULE

EXHAUST

DUCT CONNECTION SIZE | SERVICE | MODULE SIZE | FRAME | FINISH | DAMPER

150 ACEB (EXISTING) | 1,020 | 0.875" | ROOF | STD | GBD | 208/3 | 3/4

2,595 1" ROOF STD GBD 208/3 1

150 ACEB 1,310 0.75" ROOF STD GBD 120/1 3/4 1,2,3,4

16"x16" SURFACE WHITE

12"x12" SURFACE WHITE

MODEL#

SMART CONTROL CARD COMPATIBLE WITH NEW BUILDING AUTOMATION SYSTEM.

CFM MOUNTING FINISH VOLTAGE/ PHASE FLA

> <u>ABBREVIATIONS:</u> ACH - AIR CHANGER PER HOUR AII - AIRBORNE INFECTION ISOLATION ROOM ECA - EQUIVALENT CLEAN AIR

STATE OF MISSOURI MIKE KEHOE, GOVERNOR



RYAN S. JONES - ENGINEER
PE-2004017193
PROFESSIONAL SEAL

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IMPROVEMENTS FOR INFECTION CONTROL

MOUNT VERNON VETERANS HOME

1600 SOUTH HICKORY MOUNT VERNON, MO

PROJECT # U2301-04 SITE # 6905 FACILITY # 8136905001

REVISION:
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ISSUE DATE: 05/30/2025

CAD DWG FILE: M-600.DWG DRAWN BY: QCJ

DRAWN BY: QCJ
CHECKED BY: RSJ
DESIGNED BY: QCJ

SHEET TITLE:

MECHANICAL SCHEDULES

SHEET NUMBER:

M-600