

FAN SCHEDULE													
ID	QTY	SERVICE	CFM	FRPM	S.P. (IN W.G.)	TYPE/ DRIVE	HP	MOTOR RPM	VOLTS/ PHASE	MOTOR ENCL.	NOTES	DESIGN BASIS	MANUFACTURER & MODEL NO.
EF-1 thru EF-6	6	FILTER BUILDING FILTER ROOM	2,090	1750	0.4	MOUNTED/DIRECT DRIVE	1/3	1750	115/1	TEFC	1.2	6 AIR CHANGES/HOUR	GREENHECK SET-16-421-A OR APPROVED EQUAL
EF-7	1	FILTER BUILDING BLOWER ROOM	577	1550	0.4	MOUNTED/DIRECT DRIVE	1/8	1550	115/1	TEFC	1.2	6 AIR CHANGES/HOUR	GREENHECK SET-12-432-D OR APPROVED EQUAL
EF-8 thru EF-13	6	BUILDING GARAGE MAINTENANCE	2,090	1750	0.4	MOUNTED/DIRECT DRIVE	1/3	1750	115/1	TEFC	1.2	6 AIR CHANGES/HOUR	GREENHECK SET-16-421-A OR APPROVED EQUAL
EF-14	1	BUILDING RESTROOM	75	900	0.125	CEILING	0.0724		120/1				GREENHECK SP-B80 OR APPROVED EQUAL

NOTES:
1. DAMPER & ACTUATOR
2. FLUSH EXTERIOR WALL HOUSING W/ OSHA GUARD

UNIT HEATER SCHEDULE									
ID	SERVICE	QTY	SIZE	BTU/HR	KW	VOLTS/ PHASE	NOTES	MANUFACTURER & MODEL NO.	
UH-1 THRU UH-7	FILTER BUILDING FILTER ROOM	7	14" X 19" X 21 3/4"	34,130	10	460/3	1, 2, 3	OR APPROVED EQUAL	
UH-8	FILTER BUILDING BLOWER ROOM	1	12" X 18" X 19 3/4"	11,200	3.3	460/3	1, 2, 3	OR APPROVED EQUAL	
UH-10	MAINTENANCE VEHICLE STORAGE	1	12" X 18" X 19 3/4"	25,600	7.5	240/1	1, 2, 3	OR APPROVED EQUAL	
UH-11 THRU UH-13	MAINTENANCE VEHICLE STORAGE	3	12" X 18" X 19 3/4"	17,100	5.5	240/1	1, 2, 3	OR APPROVED EQUAL	
BB-1	MAINTENANCE RESTROOM	1	6" X 48.3" X 2.5"	3,412	1	240/1	3	OR APPROVED EQUAL	

NOTES:
1. MOUNT 6 FEET ABOVE FINISHED FLOOR
2. PROVIDE INTEGRAL DISCONNECT
3. SEE ELECTRICAL DRAWINGS FOR CONNECTION REQUIREMENTS

CEILING MOUNTED AC SCHEDULE											
ID	SERVICE	QTY	COOLING CAPACITY			HEATING CAPACITY		AIR CIRCULATION CFM	VOLTS/ PHASE	NOTES	MANUFACTURER & MODEL NO.
			TOTAL COOLING BTU/H	SENSIBLE COOLING BTU/H	DESIGN CONDITION INDOOR/OUTDOOR	BTU/HR	DESIGN CONDITION INDOOR/OUTDOOR				
AC-3	FILTER BUILDING ELECTRICAL ROOM	1	19,300	18,300	75° / 95°	12,160	70° F / 14° F	750	208/1	1, 2, 3	LIEBERT MMD18EP0E0G OR APPROVED EQUAL
AC-4	FILTER BUILDING ELECTRICAL ROOM	1	19,300	18,300	75° / 95°	12,160	70° F / 14° F	750	208/1	1, 2, 3	LIEBERT MMD18EP0E0G OR APPROVED EQUAL

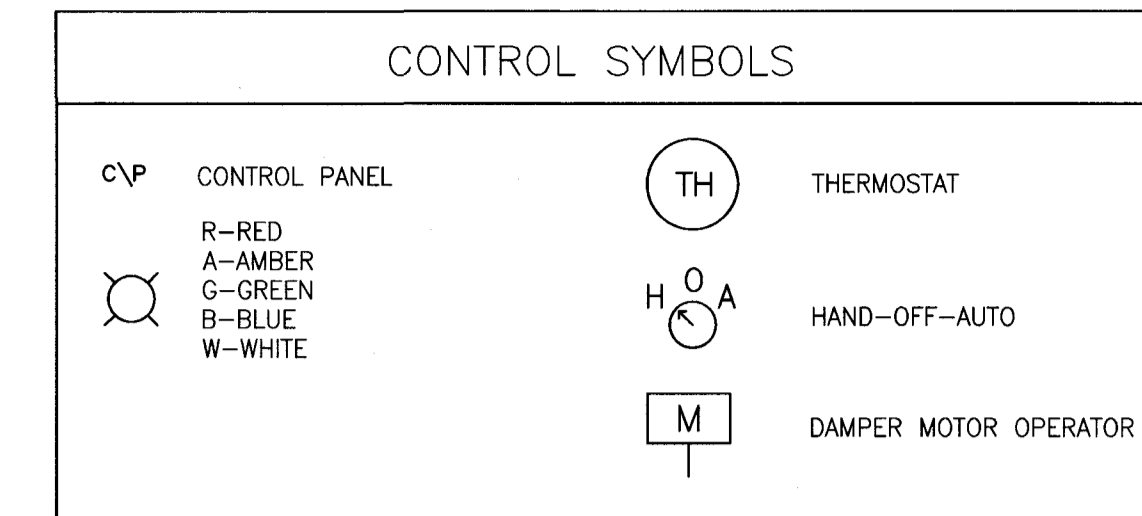
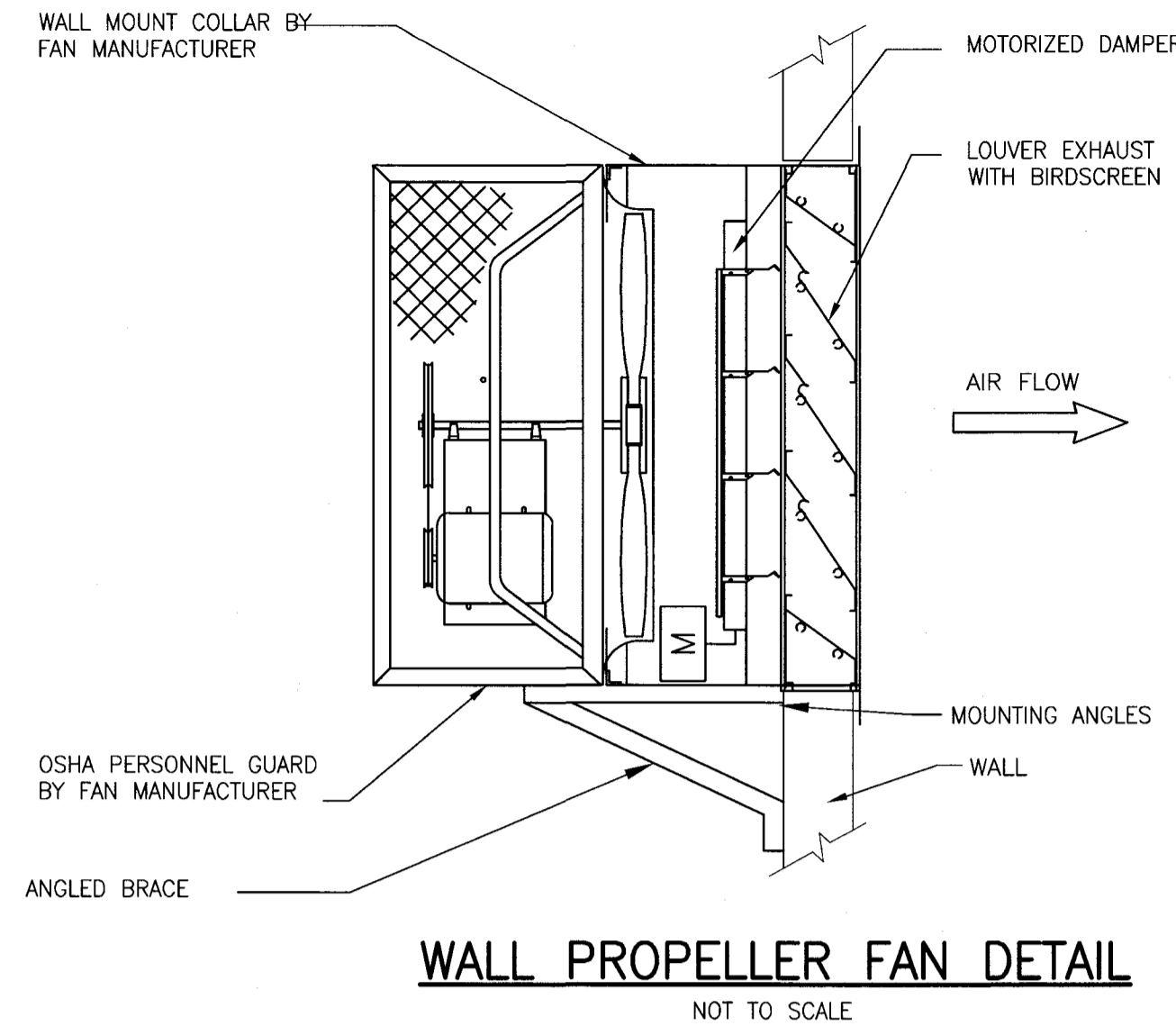
NOTES:
1. MOUNT 8 FEET ABOVE FINISHED FLOOR
2. PROVIDE INTEGRAL DISCONNECT
3. SEE ELECTRICAL DRAWINGS FOR CONNECTION REQUIREMENTS

WALL MOUNTED AC SCHEDULE											
ID	SERVICE	QTY	COOLING CAPACITY			HEATING CAPACITY		AIR CIRCULATION CFM	VOLTS/ PHASE	NOTES	MANUFACTURER & MODEL NO.
			TOTAL COOLING BTU/H	SENSIBLE COOLING BTU/H	DESIGN CONDITION INDOOR/OUTDOOR	BTU/HR	DESIGN CONDITION INDOOR/OUTDOOR				
AC-1	MAINTENANCE BUILDING OFFICE	1	8,125	5,815	75° / 95°	8,410	75° F / 14° F	330	230/1	1, 3	FUJITSU ASU7RLF OR APPROVED EQUAL
AC-2	MAINTENANCE BUILDING OFFICE	1	8,125	5,815	75° / 95°	8,410	75° F / 14° F	330	230/1	1, 3	FUJITSU ASU7RLF OR APPROVED EQUAL

NOTES:
1. MOUNT 6 FEET ABOVE FINISHED FLOOR
2. PROVIDE INTEGRAL DISCONNECT
3. SEE ELECTRICAL DRAWINGS FOR CONNECTION REQUIREMENTS

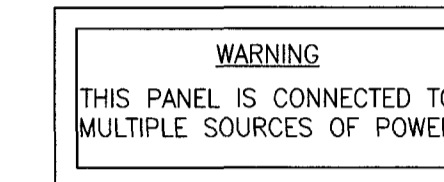
AIR COOLED CONDENSING UNIT SCHEDULE							
ID	SERVICE	QTY	COOLING CAPACITY		HEATING CAPACITY		MANUFACTURER & MODEL NO.
			BTU/H	DESIGN CONDITION OUTDOOR	BTU/H	DESIGN CONDITION OUTDOOR	
ACCU-1	MAINTENANCE BUILDING OFFICES	1	18,000	95° F	13,900	17° F	OR APPROVED EQUAL
ACCU-2	FILTER BUILDING ELECTRICAL ROOM	1	19,300	95° F	N/A	N/A	LIEBERT PFH020ACPL7 OR APPROVED EQUAL
ACCU-3	FILTER BUILDING ELECTRICAL ROOM	1	19,300	95° F	N/A	N/A	LIEBERT PFH020ACPL7 OR APPROVED EQUAL

NOTES:
1. MOUNT ON CONCRETE PAD
2. PROVIDE INTEGRAL DISCONNECT
3. SEE ELECTRICAL DRAWINGS FOR CONNECTION REQUIREMENTS

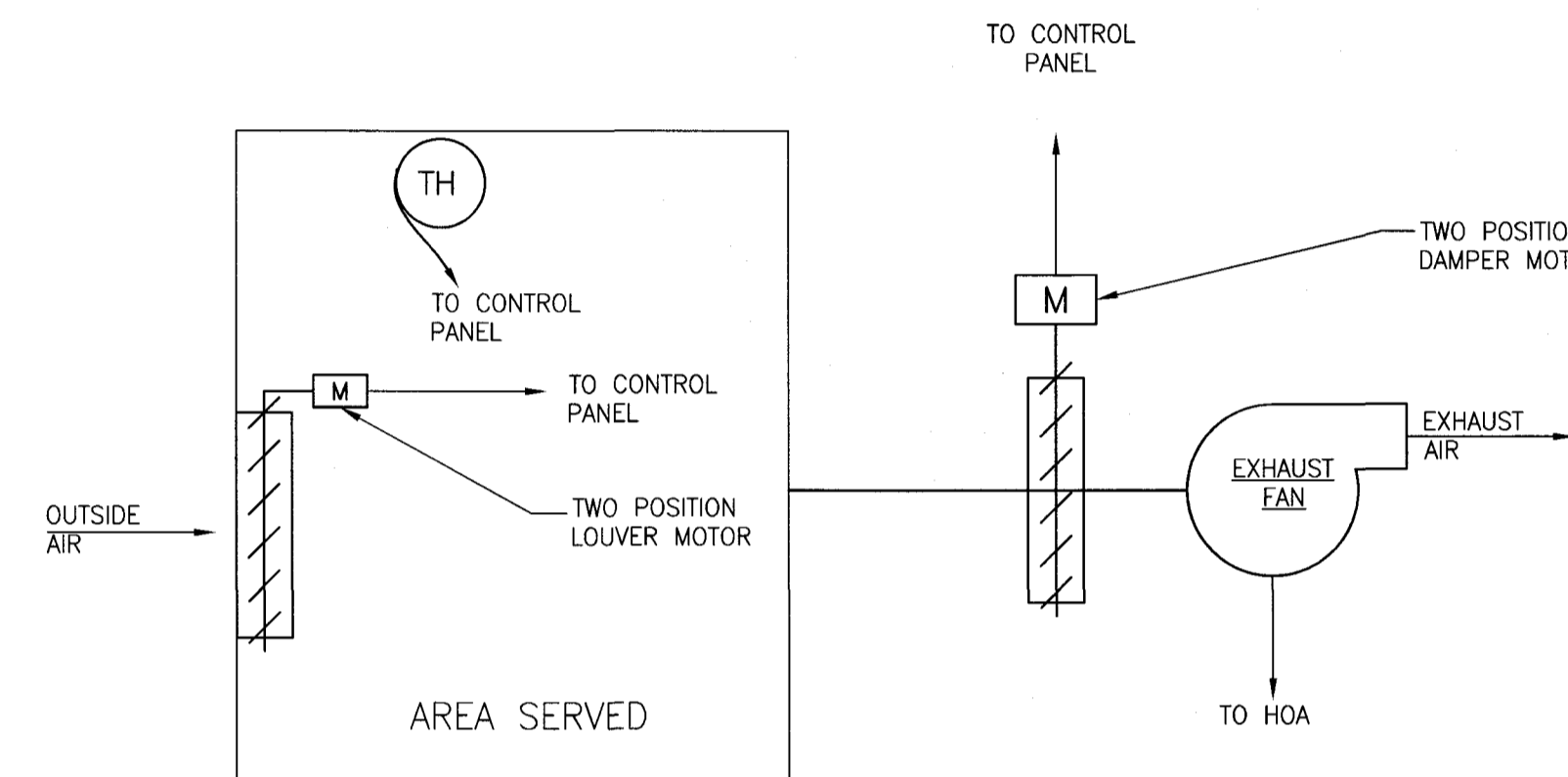


PANEL NOTES:

- PLACE A RED WARNING SIGN CONSPICUOUSLY ON THE FACE OF EACH HVAC CONTROL PANEL WHICH READS AS FOLLOWS:



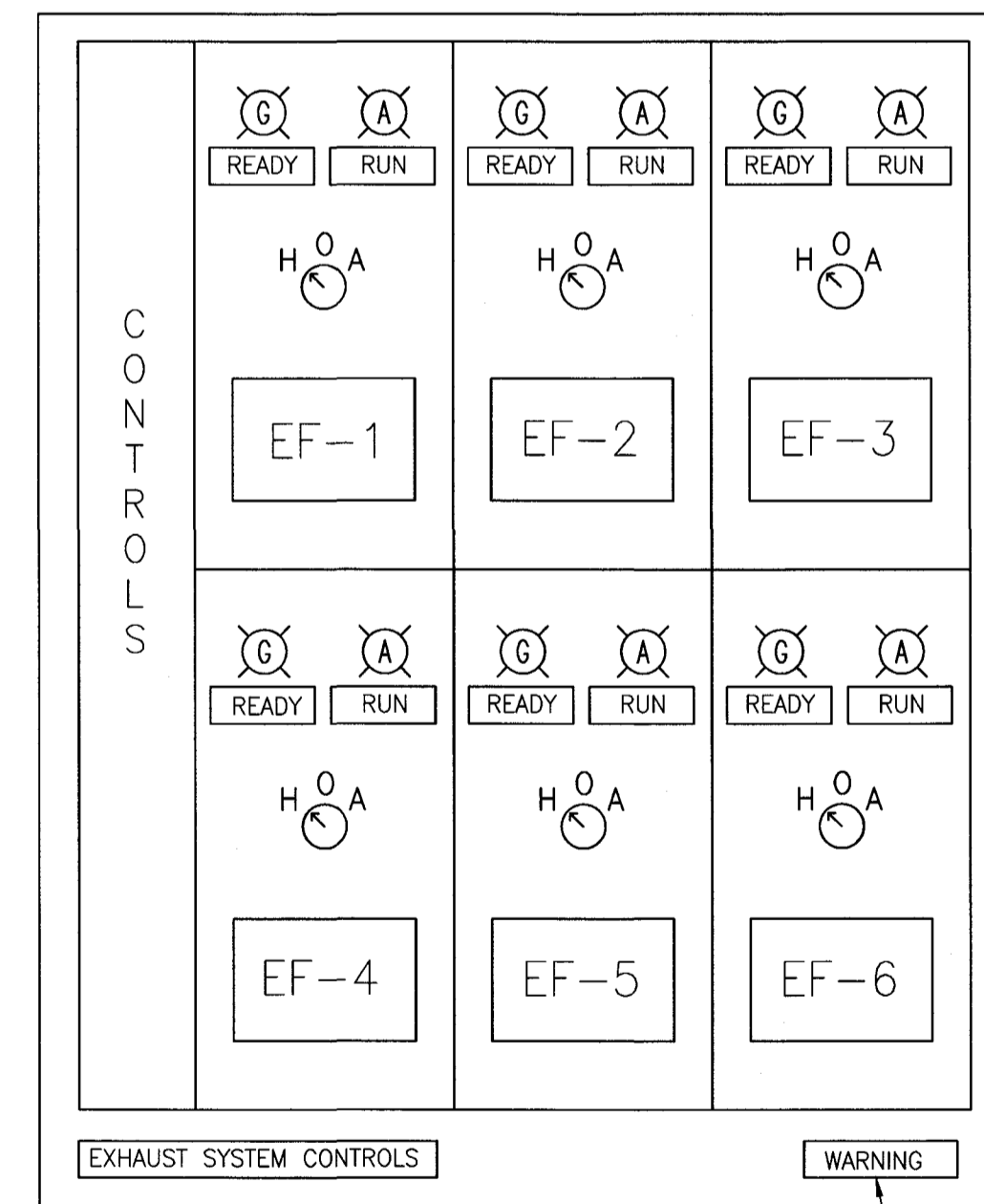
- ALL PANELS SHALL BE NEMA 4X STAINLESS STEEL.
- INTERLOCK WITH MCC PROVIDED. INTERLOCK WITH ALL OTHER PANELS AND MCC I/O SECTION SHALL BE PROVIDED. PANEL SHALL BE DESIGNED TO ACCEPT/PROVIDE ENQUIRED SIGNALS.
- PROVIDE EQUIPMENT NUMBER UNDER EACH OPERATING CONTROL.



THERMOSTATICALLY CONTROLLED EXHAUST FAN INTERLOCK SCHEDULE					
UNIT NO.	LOCATION	AREA SERVED	INTERLOCKS		NOTES
			WITH	CONTROL	
EF-1	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-2	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-3	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-4	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-5	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-6	FILTER BUILDING	FILTER AREA	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-7	FILTER BUILDING	BLOWER ROOM	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-8	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-9	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-10	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-11	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-12	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4
EF-13	MAINTENANCE BUILDING	VEHICLE STORAGE	LOUVER/DAMPERS	H-O-A/THERMOSTAT	1,2,3,4

NOTES

- TYPICAL SYSTEM MAY HAVE MORE THAN ONE FAN OR LOUVER. PROVIDE ADDITIONAL HOA SWITCH, PANEL LIGHTS, MOTOR OPERATED DAMPER, AND REQUIRED CONTROLS FOR THE EXHAUST FAN SHOWN AND FOR EACH ADDITIONAL EXHAUST FAN.
- ALL CONTROL SYSTEM COMPONENTS SHALL BE CORROSION RESISTANT.
- MOTOR OPERATED DAMPERS MAY REQUIRE MULTIPLE ACTUATORS. THE CONTRACTOR SHALL PROVIDE AND INSTALL MULTIPLE ACTUATORS WHERE REQUIRED AT NO ADDITIONAL COST.
- ALL ELECTRICAL EQUIPMENT SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH DIVISION 16 OF THE CONTRACT DOCUMENTS.
- ALL CONTROL, INSTRUMENTS, PANELS AND ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH THE EXHAUST FANS SHALL BE RATED PER SPECIFICATION 15900. ALL ARC PRODUCING DEVICES SHALL HAVE A NEMA 7 ENCLOSURE AND BE APPROVED FOR THE SERVICE.
- CONTRACTOR SHALL PROVIDE INRELOCK BETWEEN EXHAUST FANS AND DAMPERS, AND BLOWERS AND DAMPER PER SPECIFICATION 15900 WITH CONDUIT/WIRING AS NEEDED.

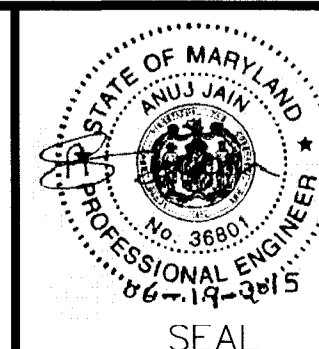


THERMOSTATICALLY CONTROLLED FAN SYSTEM CONTROL
(TYPICAL FOR EF-8 THRU 13 AND EF-7)

Hatch Mott MacDonald
11019 McCormick Road, Suite 260
Hunt Valley, MD 21031
Phone: 866-363-1471

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
EXPIRATION DATE: 1-18-2015 LICENSE NO.: 36801

DESIGNED AJ
DETAILED JD
CHECKED DK
APPROVED AJ
DATE



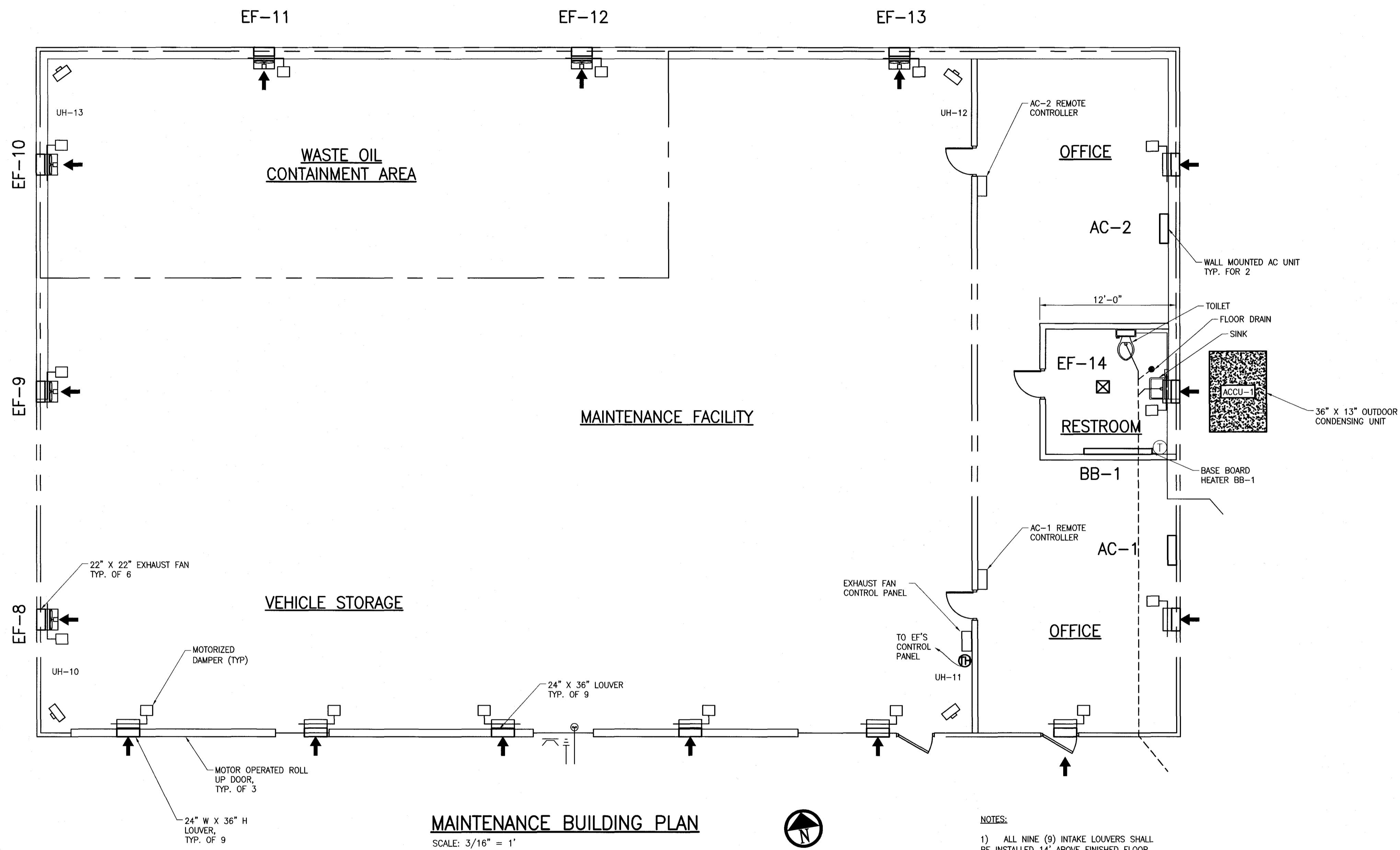
MARYLAND ENVIRONMENTAL SERVICE
MARYLAND ENVIRONMENTAL SERVICE
259 NAJOLLES RD
MILLERSVILLE MD 21108
410-729-8200 FAX: 410-729-8220

MARYLAND ENVIRONMENTAL SERVICE WATER AND WASTEWATER
JAMES M. HARKINS DIRECTOR
JOHN KANE, ESQ. DIRECTOR W/WW
ELLEN FRKETIC CHIEF OF ENGINEERING
MOHAMED MOHAMED PROJECT MANAGER

NO.	DATE	DATE	BY	CK

MCI WASTEWATER TREATMENT PLANT ENR UPGRADE
HVAC SCHEDULES
SCALE: N.T.S.

MES PROJECT ID NO. 15-02-17
HMM PROJECT NO. 271235
SHEET 83 OF 179
DRAWING NO. HV-3

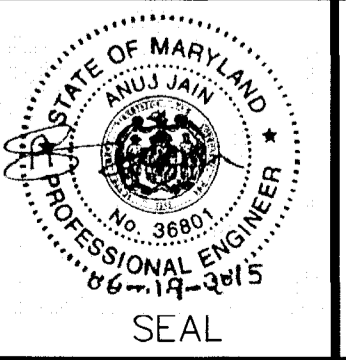


- NOTES:
- 1) ALL NINE (9) INTAKE LOUVERS SHALL BE INSTALLED 14' ABOVE FINISHED FLOOR.
 - 2) TWO AIR CONDITIONING UNITS IN THE OFFICE SHALL BE WALL MOUNTED AND 2" LINE FROM EACH UNIT SHALL BE RUN TO THE OUTDOOR CONDENSING UNIT.
 - 3) A TANKLESS WATER HEATER SHALL BE INSTALLED ON THE WATERLINE BELOW SINK.

Hatch Mott MacDonald
 11019 McCormick Road, Suite 280
 Hunt Valley, MD 21031
 Phone: 866-363-1471

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 EXPIRATION DATE: 1-18-2015 LICENSE NO.: 36801

DESIGNED AJ
 DETAILED JD
 CHECKED DK
 APPROVED AJ
 DATE



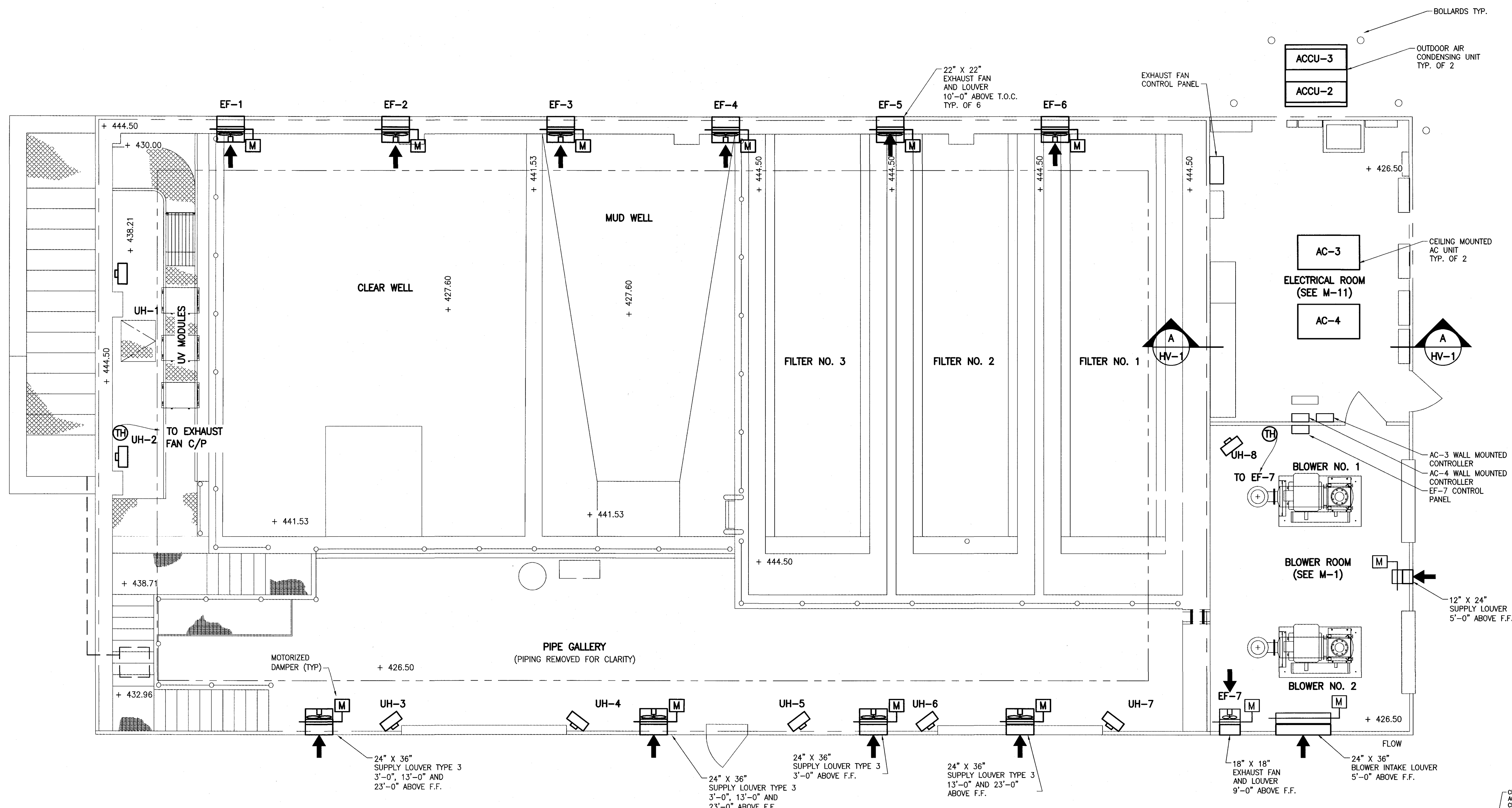
MARYLAND ENVIRONMENTAL SERVICE
 259 NAJOLLES RD
 MILLERSVILLE MD 21108
 410-729-8200 FAX: 410-729-8220

MARYLAND ENVIRONMENTAL SERVICE WATER AND WASTEWATER
 JAMES M. HARKINS DIRECTOR
 JOHN KANE, ESQ. DIRECTOR W/WW
 ELLEN FRKETIC CHIEF OF ENGINEERING
 MOHAMED MOHAMED PROJECT MANAGER

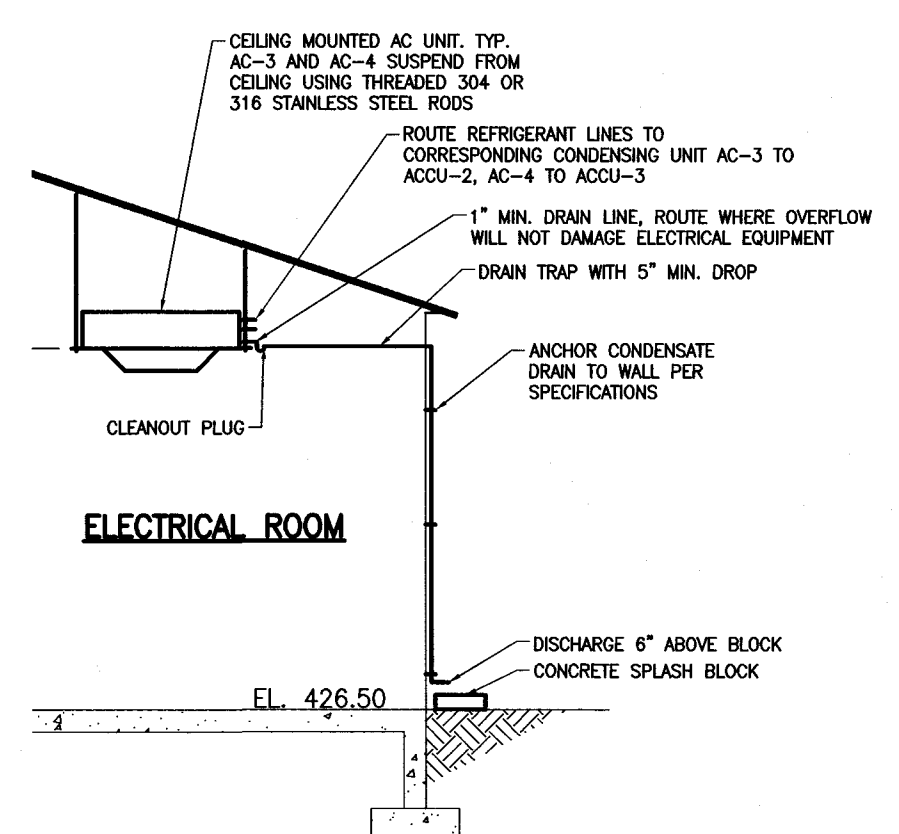
NO.	DATE	DATE	BY	CK

MCI WASTEWATER TREATMENT PLANT ENR UPGRADE
HVAC MAINTENANCE BUILDING PLAN
 SCALE: 3/16" = 1'-0"

MES PROJECT ID NO. 15-02-17
 HMM PROJECT NO. 271235
 SHEET 82 OF 179
 DRAWING NO. HV-2



HVAC FILTER BUILDING PLAN
 SCALE: 1/4" = 1'-0"

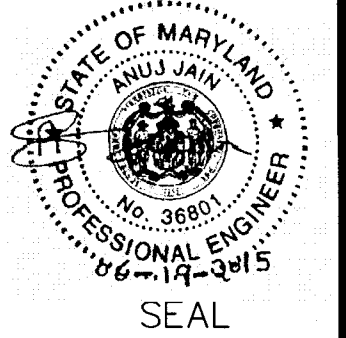


SECTION A-A
 SCALE: 3/16" = 1'-0"



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 EXPIRATION DATE: 1-18-2015 LICENSE NO.: 36801

DESIGNED: AJ
 DETAILED: JD
 CHECKED: DK
 APPROVED: AJ
 DATE: _____



MARYLAND ENVIRONMENTAL SERVICE
 MARYLAND ENVIRONMENTAL SERVICE
 259 NAJONES RD
 MILLERSVILLE MD 21108
 410-729-8200 FAX: 410-729-8220

MARYLAND ENVIRONMENTAL SERVICE WATER AND WASTEWATER
 JAMES M. HARKINS DIRECTOR
 JOHN KANE, ESQ. DIRECTOR W/WW
 ELLEN FRKETIC CHIEF OF ENGINEERING
 MOHAMED MOHAMED PROJECT MANAGER

NO.	DATE	DATE	BY	CK
1		ADDENDUM NO. 3 04/17/2015		

MCI WASTEWATER TREATMENT PLANT ENR UPGRADE
HVAC FILTER BUILDING PLAN
 SCALE: AS NOTED

MES PROJECT ID NO. 15-02-17
 HMM PROJECT NO. 271235
 SHEET 81 OF 179
 DRAWING NO. HV-1