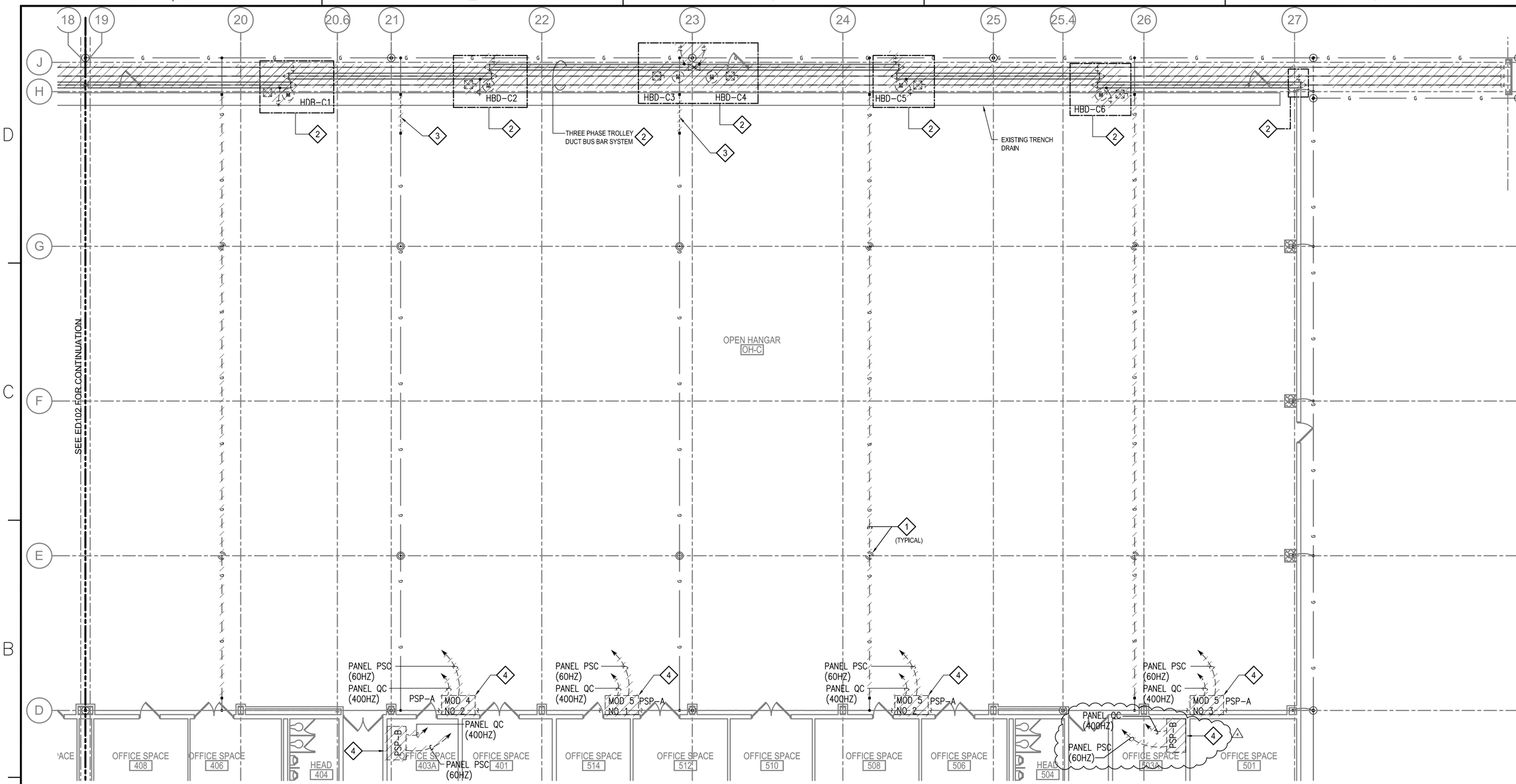

A1 FIRST FLOOR DEMOLITION PLAN - AREA A

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

PROJECT NORTH

KEY NOTES

1. REMOVE AIRCRAFT STATIC GROUNDING SYSTEM (STATIC GROUND POINT, GROUND ROD, CONDUCTORS) TO ALLOW SPACE FOR FIRE PROTECTION AFFF TRENCH SYSTEM. RETAIN PORTIONS OF EXISTING TO NEW GROUNDING CONDUCTOR. GROUNDING CONDUCTOR TO ALLOW BONDING THE GROUNDING CONDUCTOR BY MOLDED FUSION WELD AS CALLED FOR ON E-103. COORDINATE EXTENT OF REQUIRED REMOVAL WORK WITH OTHER DISCIPLINES. REFER TO AFFF, STRUCTURAL, ARCHITECTURAL AND PLUMBING DRAWINGS FOR EXTENT OF DISTURBANCE.

2. HANGAR BAY DOOR SCOPE:
   - REMOVE THREE PHASE TROLLEY DUCT BUS SYSTEM, SAFETY EDGES, CONTROLS, BRAKING SYSTEM, PUSHBUTTON STATIONS, MOTOR/GEAR BOXES, CONTROL PANEL ENCLOSURES, MOTOR/GEAR BOX ENCLOSURES.
   - REMOVE RACEWAYS AND WIRING (LINE VOLTAGE AND CONTROL) BACK TO SOURCE.

3. THE MAIN EAST-WEST TRENCH DRAIN THAT RUNS ACROSS THE ENTIRE HANGAR (OPEN HANGAR OH-A, OH-B, OH-C) IS BEING ENLARGED. REMOVE PORTION OF GROUNDING CONDUCTOR TO FACILITATE TRENCH WORK. COORDINATE EXTENT OF REQUIRED REMOVAL WORK WITH OTHER DISCIPLINES. REFER TO AFFF, STRUCTURAL, ARCHITECTURAL AND PLUMBING DRAWINGS FOR EXTENT OF DISTURBANCE. WORK MUST NOT DISTURB AREA BELOW THE DOOR TRACKS.

4. REMOVE POWER SUPPLY POINT AND ASSOCIATED TRANSFER SWITCH, TRANSFORMERS, DISCONNECT SWITCHES, OUTLETS, ENCLOSURES, RACEWAYS 60HZ AND 400HZ FEEDERS BACK TO SOURCE PANELS.

CAUTION: IF THIS PLAN IS A REDUCTION, GRAPHIC SCALE MUST BE USED

0 4' 8' 12' 16'

⅛" = 1'-0

KEY PLAN

A	B	C
D	E	F

STM	DESCRIPTION	DATE	APPR
1	FINAL SUBMISSION	5/2/2016	
2	PSP - B ADDED TO ROOM 503A	6/13/2016	

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES KSD DRW ASC CHK RPP

PM/DM KPL/IAS

BRANCH MANAGER

CHIEF ENG/ARCH Mark J. Airaghi, PE

FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND ~ MID-ATLANTIC
HAMPTON ROADS IPT

NAVAL FACILITIES ENGINEERING COMMAND
NAS OCEANA - VIRGINIA BEACH, VIRGINIA

NAVAL AIR STATION OCEANA
VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

1st FLOOR DEMOLITION PLAN - ELECTRICAL - AREA C

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12716377

SHEET 155 OF 170

ED103

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_ED103.dwg LAYOUT NAME: Area C PLOTTED: Monday, June 13, 2016 - 2:35pm USER: mcpolley

ELECTRIC EQUIPMENT AND CONTROL SCHEDULE

F-1	---	INDICATES EQUIPMENT DESIGNATION FROM SCHEDULE
101	---	INDICATES ROOM LOCATION FOR CONTROL DEVICE
AU	---	INDICATES CONTROL DEVICE LOCATED AT UNIT
X	---	INDICATES FIRE ALARM FAN SHUTDOWN IS REQUIRED

EQUIPMENT							ITEMS FURNISHED AND INSTALLED BY ELECTRICAL DIVISION															ITEMS FURNISHED AND INSTALLED BY ELECTRICAL DIVISION
EQUIP.DESIGN	NAME	ROOM LOCATION	HP	KW	V	PH	PANEL OR CONTROL CENTER	CIRCUIT BREAKER	POWER WIRING FROM PANEL TO CONTROL UNIT	POWER WIRING FROM CONTROL UNIT TO EQUIPMENT	GND WIRE	REF. NOTES	FUSED DISC. SWITCH	NON FUSED DISC. SWITCH	FIRE ALARM FAN SHUTDOWN	MANUAL MOTOR STARTER	COMB. MAGNETIC STARTER	2-SPEED COMB. MAGNETIC STARTER	VARIABLE FREQUENCY DRIVES	ISOLATION TRANS. (IT) OR LINE REACTOR (LR)	SINGLE POINT CONNECT	PKG. CTRL UNIT
AC-1	AIR COMPRESSOR 1	COMPRESSOR ROOM			460	3	P1	150A-3P	3#1, 1 1/2 " C	3#1, 1 1/2 " C	#6	2	COMP RM									AU
AC-2	AIR COMPRESSOR 2	COMPRESSOR ROOM			460	3	P1	150A-3P	3#1, 1 1/2 " C	3#1, 1 1/2 " C	#6	2	COMP RM									AU
AHU-1	AIR HANDLEING UNIT 1	MER 1	7 1/2		460	3	PA	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-1			
AHU-2	AIR HANDLEING UNIT 2	MER 1	7 1/2		460	3	PA	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-2			
AHU-3	AIR HANDLEING UNIT 3	MER 2	7 1/2		460	3	PB	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-3			
AHU-4	AIR HANDLEING UNIT 4	MER 3	7 1/2		460	3	PC	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-4			
AHU-5	AIR HANDLEING UNIT 5	MER 3	7 1/2		460	3	PC	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-5			
AHU-6	AIR HANDLEING UNIT 6	MER 2	7 1/2		460	3	PB	25A-3P	3#10, 1"C	3#10, 1"C	#10	1							VFD-AHU-6			
CU-1	CONDENSING UNIT 1	OUTSIDE		2	208	1	PX	150A-2P	2#12, 3/4"C	2#12, 3/4"C	#12	7	OUTSIDE									
HBD-A1	HANGAR BAY DOOR A1	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-A2	HANGAR BAY DOOR A2	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-A3	HANGAR BAY DOOR A3	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-A4	HANGAR BAY DOOR A4	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-A5	HANGAR BAY DOOR A5	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-A6	HANGAR BAY DOOR A6	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B1	HANGAR BAY DOOR B1	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B2	HANGAR BAY DOOR B2	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B3	HANGAR BAY DOOR B3	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B4	HANGAR BAY DOOR B4	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B5	HANGAR BAY DOOR B5	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-B6	HANGAR BAY DOOR B6	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C1	HANGAR BAY DOOR C1	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C2	HANGAR BAY DOOR C2	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C3	HANGAR BAY DOOR C3	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C4	HANGAR BAY DOOR C4	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C5	HANGAR BAY DOOR C5	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
HBD-C6	HANGAR BAY DOOR C6	HANGAR	1		460	1	NOTE 3	NOTE 3	3#12, 1/2"C	3#12, 1/2"C	#12	3										
LLD-1	LOW LEAKAGE AIR DAMPER 1	ABOVE 2ND FLOOR (MER 1)		0.04	115	1	DA	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	4		AU								
LLD-2	LOW LEAKAGE AIR DAMPER 2	ABOVE 2ND FLOOR (MER 1)		0.04	115	1	DA	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	4		AU								
LLD-3	LOW LEAKAGE AIR DAMPER 3	ABOVE 2ND FLOOR (MER 2)		0.04	115	1	DB	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	5		AU								
LLD-4	LOW LEAKAGE AIR DAMPER 4	ABOVE 2ND FLOOR (MER 3)		0.04	115	1	DB	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	6		AU								
LLD-5	LOW LEAKAGE AIR DAMPER 5	ABOVE 2ND FLOOR (MER 3)		0.04	115	1	DC	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	6		AU								
LLD-6	LOW LEAKAGE AIR DAMPER 6	ABOVE 2ND FLOOR (MER 2)		0.04	115	1	DC	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	5		AU								
LLD-7	LOW LEAKAGE AIR DAMPER 7	ABOVE 2ND FLOOR (MER 1)		0.04	115	1	DA	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	4		AU								
LLD-8	LOW LEAKAGE AIR DAMPER 8	ABOVE 2ND FLOOR (MER 1)		0.04	115	1	DA	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	4		AU								
LLD-9	LOW LEAKAGE AIR DAMPER 9	ABOVE 2ND FLOOR (MER 2)		0.04	115	1	DB	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	5		AU								
LLD-10	LOW LEAKAGE AIR DAMPER 10	ABOVE 2ND FLOOR (MER 2)		0.04	115	1	DB	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	5		AU								
LLD-11	LOW LEAKAGE AIR DAMPER 11	ABOVE 2ND FLOOR (MER 3)		0.04	115	1	DC	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	6		AU								
LLD-12	LOW LEAKAGE AIR DAMPER 12	ABOVE 2ND FLOOR (MER 3)		0.04	115	1	DC	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12	6		AU								
UH-1	GAS FIRED UNIT HEATER	FOAM ROOM	1/20		115	1	PX	15A-1P	2#12, 3/4"C	2#12, 3/4"C	#12			AU								

NOTES:

1. UTILIZE THE EXISTING 25A-3P CIRCUIT BREAKER IN DESIGNATED PANEL. PROVIDE POWER WIRING AS SCHEDULED.
2. PROVIDE FUSE TYPE AND SIZE PER MANUFACTURERS RECOMMENDATION. REMOVE THE EXISTING CIRCUIT BREAKER (GE SPECTRA RMS H1 BREAKER WITH SRPF250A PLUG) 125A PLUG AND REPLACE WITH A 150A PLUG.
3. PROVIDE POWER TO HANGAR BAY DOORS THROUGH THE THREE PHASE TROLLEY DUCT BUS SYSTEM. THE TROLLEY DUCT IS POWERED FROM THE EXISTING HANGAR DOOR FEEDER PER NOTES ON DRAWINGS ED-102 AND E-102. EXISTING DOOR MOTORS ARE 1HP.
4. PROVIDE DRIVE MOTOR ASSEMBLY, CONTROL PANEL, SAFETY SWITCH, CONTROL PUSH BUTTONS, AND CIRCUITRY WITHIN DOOR SYSTEM. UTILIZE THE EXISTING POWER FEED FROM THE DOOR CONTROL PANEL TO THE TROLLEY ~~DUCT POWER BUSSING ABOVE THE~~ DOOR.
5. CIRCUIT LLD-1, LLD-2, LLD-7, AND LLD-8 TOGETHER FROM THE SAME CIRCUIT BREAKER.
6. CIRCUIT LLD-3, LLD-6, LLD-9, AND LLD-10 TOGETHER FROM THE SAME CIRCUIT BREAKER.
7. CIRCUIT LLD-4, LLD-5, LLD-11, AND LLD-12 TOGETHER FROM THE SAME CIRCUIT BREAKER.

TRANSFORMER SCHEDULE

ELECTRICAL CHARACTERISTICS

XFMR. NUMBER	KVA	MTG	PRIMARY VOLTAGE	SECONDARY VOLTAGE	PHASE	CONNECTION TYPE	GROUND	REMARK
T1	75	WALL	480	200Y/115	3	DELTA/WYE	YES	1
T2	3	WALL	480	120	1		YES	

REMARK

1. PROVIDE 400 HZ TRANSFORMER WITH HARMONIC FILTERING AND TWO TAPS ABOVE NORMAL FULL CAPACITY.

VARIABLE FREQUENCY DRIVE SCHEDULE

UNIT NO.	LOCATION	SERVICE		FAN / PUMP		MOTOR				TYPE	DESIGN PRODUCT	OUTPUT	REMARKS
			MAX.	MAX.	TOTAL	HP	VOLTS	PHASE	RPM			AMPS	
			RPM	CFM / GPM	S.P.								
VFD-AHU-1	MER 1	AHU-1	3457	43.6 GPM	4.38	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	
VFD-AHU-2	MER 1	AHU-2	3457	43.6 GPM	4.38	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	
VFD-AHU-3	MER 2	AHU-3	3457	43.6 GPM	4.38	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	
VFD-AHU-4	MER 3	AHU-4	3457	43.6 GPM	4.38	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	
VFD-AHU-5	MER 3	AHU-5	3457	43.6 GPM	4.38	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	
VFD-AHU-6	MER 2	AHU-6	4335	27.8 GPM	4.31	7-1/2	460	3	1750	VFD	ABB: ACH550-UH	9.7	

SYM	DESCRIPTION	DATE	APPR
1	SCHEDULE REVISED	6/13/2016	
	FINAL SUBMISSION	5/2/2016	

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ACTIVITY

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BRANCH MANAGER

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FIRE PROTECTION

DEPARTMENT OF THE NAVY
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HAMPTON ROADS IPT
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NAS OCEANA – VIRGINIA BEACH, VIRGINIA
NAVAL AIR STATION OCEANA VIRGINIA BEACH, VIRGINIA

HANGAR 111 FIRE PROTECTION AND STRUCTURAL REPAIRS

SCHEDULES - ELECTRICAL

SCALE: AS SHOWN

EPROJECT NO.: 1372146

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12716389

SHEET 167 OF 170

E-601

DRAWFORM REVISION: 10 MAY 2014

FILE NAME: N:\US\Chantilly\Projects\86\18793\02 BIM-CADD\2.1 Cadd Files\1372146_E601.dwg LAYOUT NAME: Area A PLOTTED: Monday, June 13, 2016 - 5:35pm USER: mcpolley