UNITED STATES COAST GUARD
GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY, NEW JERSEY

GENERAL NOTES

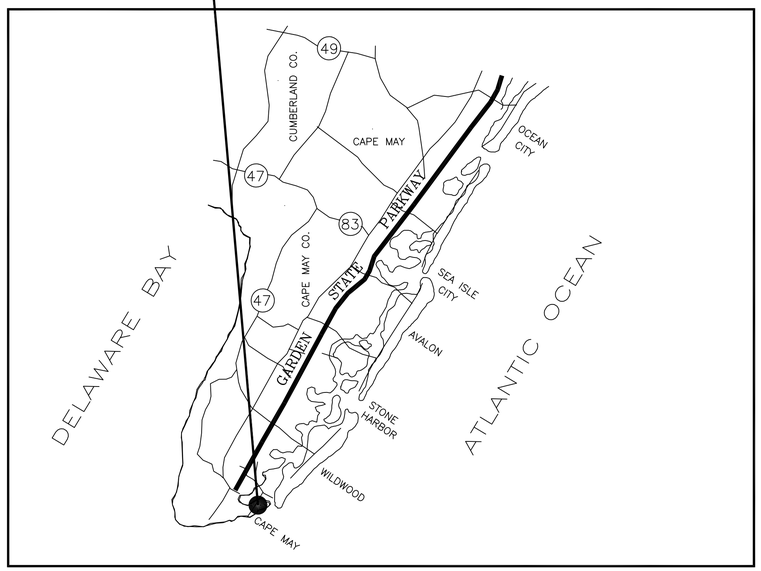
1. THE INFORMATION PROVIDED ON THE CONTRACT DRAWINGS IS BELIEVED TO BE CORRECT. HOWEVER, THE CONTRACTOR SHALL FIELD VERIFY ALL INFORMATION.
2. CONTRACTOR SHALL PROVIDE QUOTES TO PERFORM WORK LISTED UNDER THIS SOLICITATION.
3. TWO PRE-BID SITE VISITS WILL BE SCHEDULED BY THE OWNER. THE FIRST PRE-BID SITE VISIT WILL BE HELD APPROXIMATELY TWO WEEKS AFTER THE RELEASE OF THE SOLICITATION. THE SECOND PRE-BID SITE VISIT WILL BE HELD APPROXIMATELY THREE WEEKS AFTER THE RELEASE OF SOLICITATION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE PROJECT ENGINEER, LT JUSTIN DAVIS, FACILITIES ENGINEERING, DESIGN SECTION, AT 609-898-6406 TO OBTAIN THE SPECIFIC DATES, AS NO OTHER SITE VISITS WILL BE SCHEDULED.
4. THE CONTRACTOR CAN EXPECT THE BUILDING TO BE IN USE AT ALL TIMES.
5. THE INTENT IS TO REPLACE EXISTING POOL PAK UNIT WITH THE EQUIVALENT UNIT FROM POOL PAK. ALL ELECTRICAL AND DUCTWORK CONNECTIONS WILL BE IN THE SAME LOCATIONS. ALL STRUCTURAL SUPPORTS AND ROOF CONNECTIONS SHALL REMAIN UNCHANGED.
6. THE TRAINING CENTER'S SHOP PERSONNEL WILL BE ABLE TO ASSIST IN THE LOCATION AND IDENTIFICATION OF THE ROOF TOP UNITS ELECTRICAL AND CONTROLS INTERFACE.
7. THE GOVERNMENT WILL RETAIN ALL RECYCLABLE MATERIAL IF THEY CHOOSE. INCLUDING COILS. EVACUATION AND RECYCLING OF ALL REFRIGERANT IS RESPONSIBILITY OF THE CONTRACTOR

SHEET INDEX

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	GATE VALVE		
	GLOBE VALVE		
	CHECK VALVE	HWS	HOT WATER SUPPLY (HEATING)
	BUTTERFLY VALVE	HWR	HOT WATER RETURN (HEATING)
	ECCENTRIC PLUG VALVE		EQUIPMENT DRAIN
	BALL VALVE	RS	REFRIGERANT SUCTION
	STRAINER	RL	REFRIGERANT LIQUID
	UNION	RD	REFRIGERANT HOT GAS DISCHARGE
	FLANGE	PGS	PROPYLENE GLYCOL SUPPLY
	CAP	PGR	PROPYLENE GLYCOL RETURN
	BLIND FLANGE	DOUBLE LINE / SINGLE LINE	DUCTWORK
	SHUTOFF VALVE (GATE, PLUG, BUTTERFLY OR BALL)	12/6 / 12/6	RECTANGULAR DUCT(FIRST NUMBER IS SIDE SHOWN IN INCHES)
	PRESSURE REGULATING VALVE		SUPPLY AIR DUCT
	SOLENOID VALVE		
	CONTROL VALVE (2-WAY)		RETURN OR EXHAUST DUCT
	CONTROL VALVE (3-WAY)		
	THERMOMETER		OUTSIDE AIR DUCT
	PRESSURE GAGE		
	SAFETY RELIEF VALVE		FLEXIBLE CONNECTION
	COCK (GAGE,AIRVENT,DRAIN)		
FE	FLOW MEASURING ELEMENT		VOLUME DAMPER
	TEST PLUG		
	SIGHT GLASS (FLOW TYPE)		MOTORIZED DAMPER OR CONTROL DAMPER - CD
	AIR ELIMINATOR		
	TEMP. & PRESS. RELIEF VALVE		FLEXIBLE DUCT
			FIRE DAMPER-FD
R	RL RELIEF VALVE		SMOKE DAMPER-SD
	PIPE ELBOW UP		COMBINATION FIRE & SMOKE DAMPER-FD/SD
	PIPE ELBOW DOWN		DUCT PRESSURE CLASS DESIGNATION
	PIPE TEE UP		
	PIPE TEE DN		RETURN GRILLE WITH ACOUSTIC BOOT
	FLOOR -FD TRENCH -TD		TRANSFER DUCT ABOVE CEILING
(DRAINS)	AREA-AD	BD	BACKDRAFT DAMPER-BD
RD	ROOF DRAIN		
	CONNECT TO EXISTING		

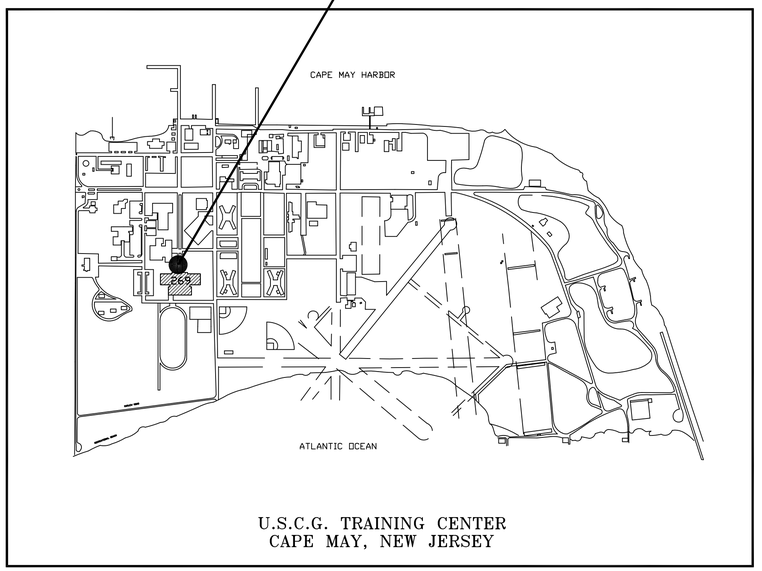
UNITED STATES COAST GUARD
TRAINING FACILITY CAPE MAY



LOCATION MAP
SCALE: N.T.S.

N

GYMNASIUM
BLDG 269



U.S.C.G. TRAINING CENTER
CAPE MAY, NEW JERSEY

VICINITY MAP
SCALE: N.T.S.

N

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U. S. COAST GUARD
TRAINING CENTER
CAPE MAY

USCG TRACEN CAPE MAY
1 MUNRO AVE.
CAPE MAY, NJ 08204-5092

ISSUE

MARK	DATE	DESCRIPTION

A/E PROJECT NO: CMS- 1576
CAD FILE NAME: T-7087-GD TITLE SHEET.dwg
DESIGNED BY: LT JUSTIN DAVIS
DRAWN BY: LT JUSTIN DAVIS
EDITED BY:
CHECKED BY:

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

SHEET TITLE

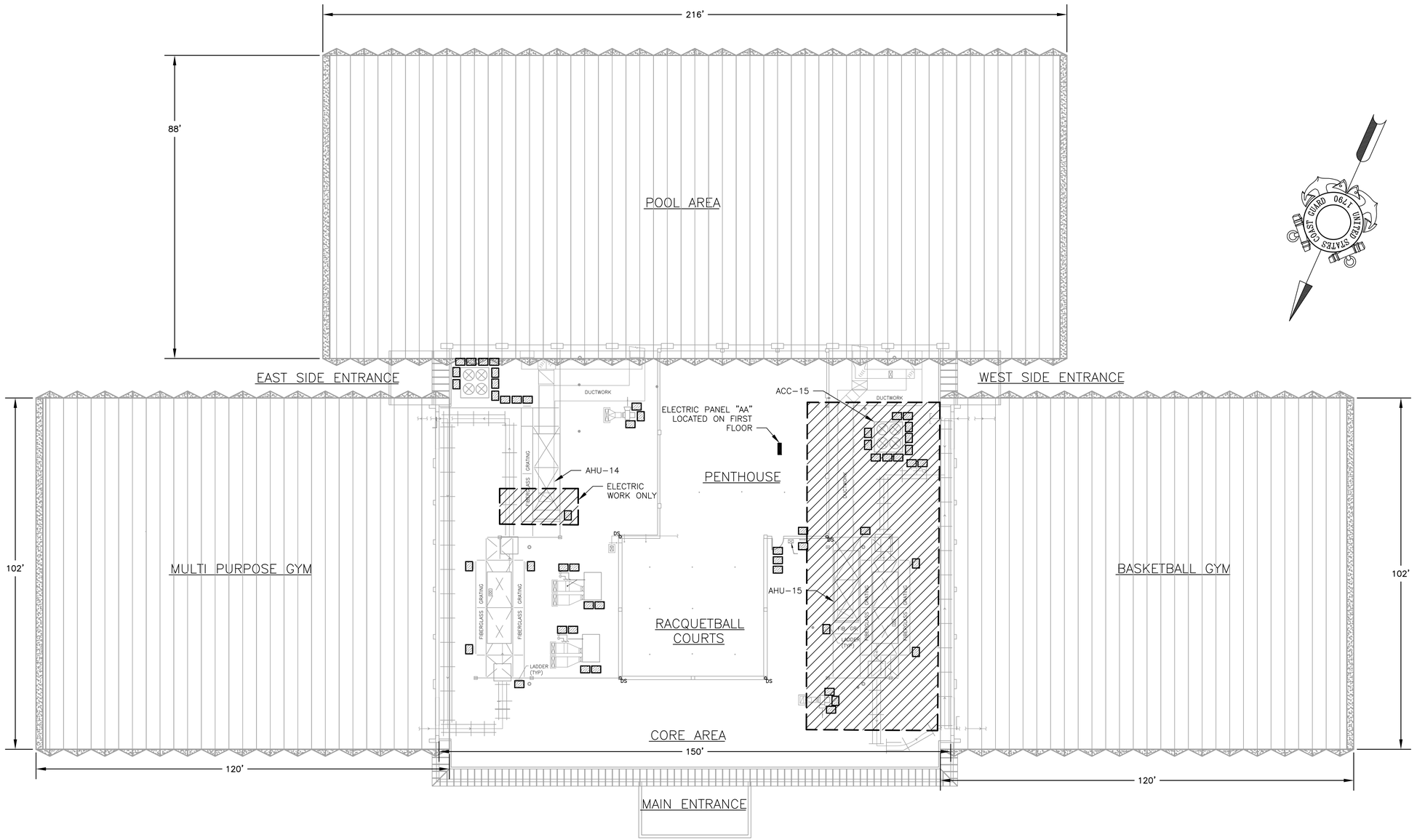
GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, RPFN 269
GENERAL
TITLE SHEET

PROJECT ENG. | BRANCH CHIEF

APPROVING OFFICER | 6/28/19 DATE

PROJECT NUMBER	DRAWING NUMBER
12672868	T-7087-CD
DISCIPLINE/SHT NO	
G1	SHEET 1 OF 6

AREA OF CONSTRUCTION.



EXISTING GYM ROOF PLAN
SCALE: 1/16" = 1'-0"

TRUE NORTH

GRAPHICAL SCALE: 1/16" = 1'
0 4' 8' 12' 16' 24' 32' 48'

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CAPE MAY

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A/E PROJECT NO: CMS- 1576
CAD FILE NAME: T-7088-CD SITE MAP.dwg
DESIGNED BY: LT JUSTIN DAVIS
DRAWN BY: LT JUSTIN DAVIS
EDITED BY:
CHECKED BY:

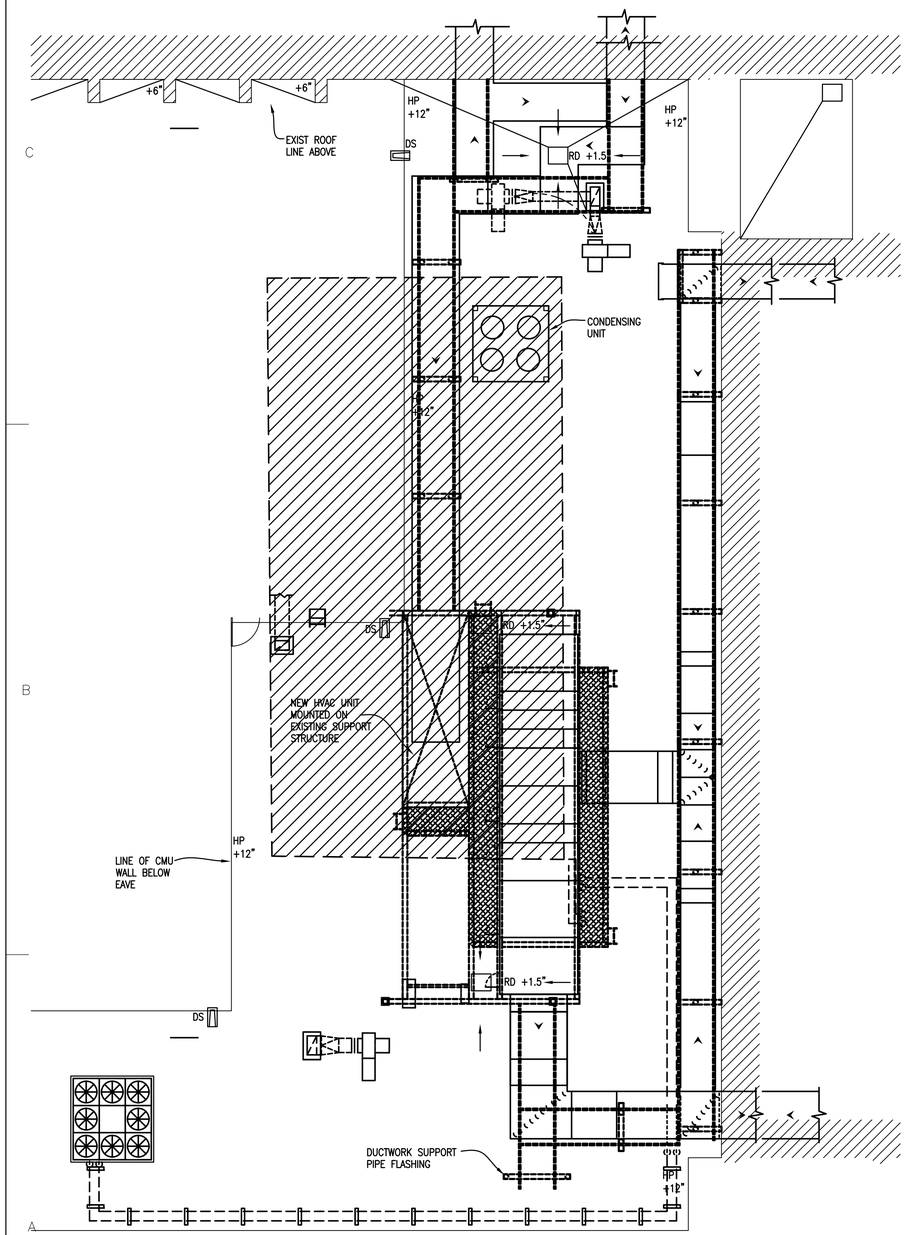
SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE

GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, RPFN 269
CIVIL
SITE MAP

PROJECT ENG. | BRANCH CHIEF
APPROVING OFFICER | 6/28/19 DATE

PROJECT NUMBER: 12672868
DRAWING NUMBER: T-7088-CD
DISCIPLINE/SHT NO: C1
SHEET 2 OF 6



EXISTING ROOF PLAN – CORE AREA
SCALE: 1/8" = 1'-0"

TRUE NORTH

AREA OF CONSTRUCTION.

4' 0 4' 8'
SCALE: 1/8"=1'-0"

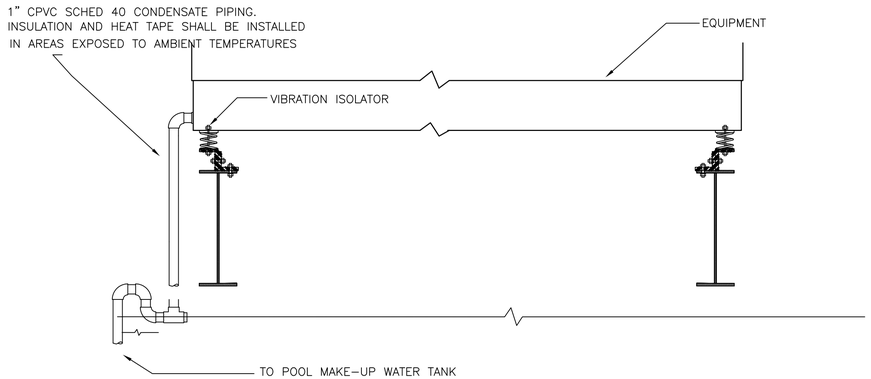
EXISTING AIR HANDLING UNIT SCHEDULE

UNIT NO.	SERVICE	LOCATION	CAPACITY		AIR FLOW CFM		TOTAL PRESS IN WG.	FAN MOTOR DATA					SEE OTHER SCHEDULES		MAKE AND MODEL	REMARKS
			TOTAL COOLING LOAD MBH	HTG MBH	O.A. MIN	HIGH/LOW		HP	VOLTS	PHASE	HZ	FAN SPEED RPM SF/RF	HC	FILT.		
AH-15	POOL AREA	PENTHOUSE	568	704	2250	20500	1.75	25	460	3	60	831	--	--	POOL PAK SWHP 220	NOTE-1-2

EQUIP SUPPORT NOTE:

CONTRACTOR TO PROVIDE ANY MATERIALS NECESSARY TO ATTACH NEW EQUIPMENT TO EXISTING EQUIPMENT SUPPORT STRUCTURE TO ACCEPT NEW MECHANICAL EQUIPMENT.

NOTE:
1. THE REMOVAL AND REPLACEMENT OF ROOF TOP MECHANICAL EQUIPMENT WILL NEED TO BE PRE-SCHEDULED AND COORDINATED WITH THE CONTRACTING OFFICER'S REPRESENTATIVE. MINIMAL EQUIPMENT DOWN TIME WILL BE ALLOWED DURING REPLACEMENT



DETAIL 1 EXISTING ROOF UNIT BASE
SCALE: N.T.S.

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MARK	DATE	DESCRIPTION

A/E PROJECT NO:	
CAD FILE NAME:	T-7089-MD EXIST PLAN.dwg
DESIGNED BY:	LT JUSTIN DAVIS
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EDITED BY:	
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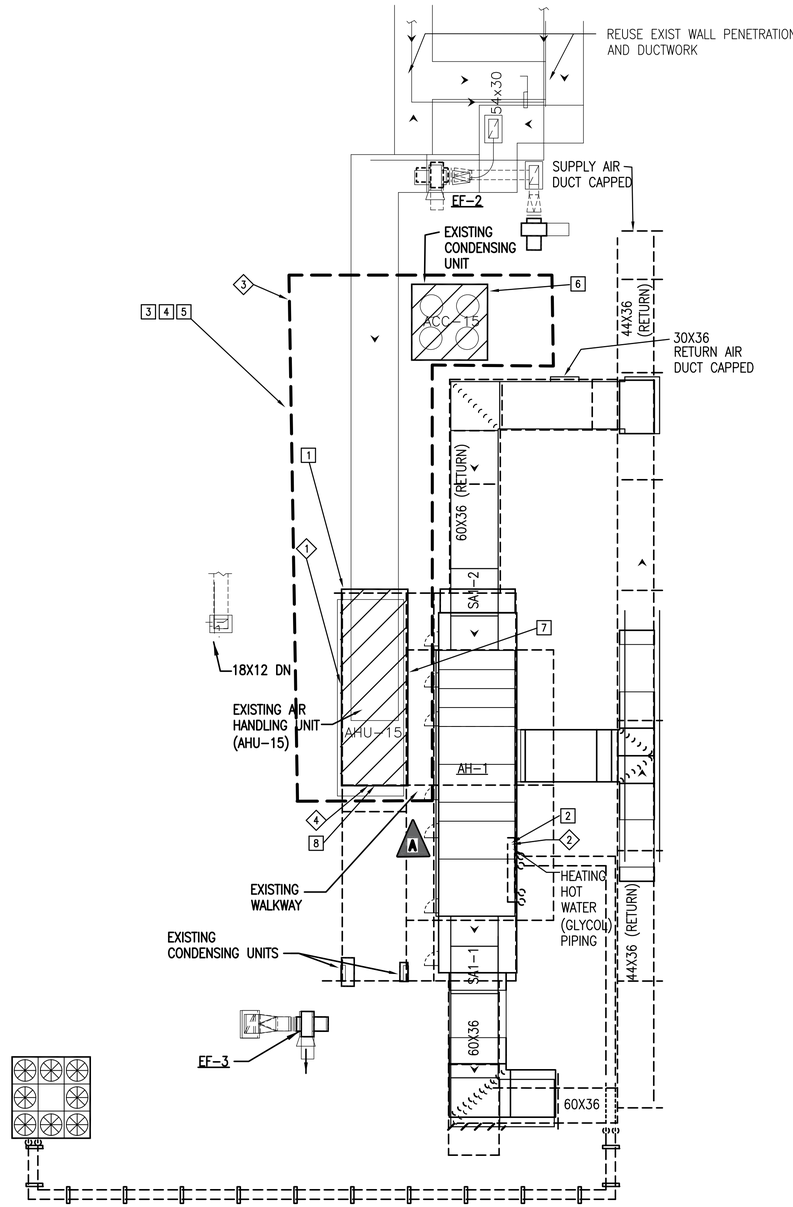
SCALE: 1/8" = 1'-0" PLOT SCALE: 1 : 1	

SHEET TITLE

GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, RPFN 269
MECHANICAL
EXISTING ROOF PLAN – CORE AREA

PROJECT ENG.	BRANCH CHIEF
APPROVING OFFICER	6/28/19 DATE

PROJECT NUMBER	DRAWING NUMBER
12672868	T-7089-MD
DISCIPLINE/SHT NO	
M1	SHEET 3 OF 6



DEMOLITION/ INSTALLATION AREA

HVAC DEMOLITION AND INSTALLATION PLAN
SCALE: 1/8" = 1'-0"

TRUE NORTH

4' 0 4' 8'
SCALE: 1/8"=1'-0"

GENERAL NOTES:

1. TO MINIMIZE FACILITY DOWNTIME, REMOVAL OF EXISTING AIR HANDLERS SHALL NOT OCCUR UNTIL NEW POOL AIR HANDLERS ARE ON SITE. PRIOR TO UNIT'S REMOVAL, COORDINATE WITH GYMNASIUM FACILITY STAFF REGARDING REMOVAL START DATE AND LENGTH OF DOWN TIME.
2. THE CONTRACTOR SHALL FIELD MEASURE AND DETERMINE EXISTING CONDITIONS TO AVOID CONFLICT WITH EQUIPMENT, SUPPORTS AND PENETRATIONS. ADJUST DETAILS TO SUIT FIELD CONDITIONS AND ACTUAL EQUIPMENT PURCHASED AS APPROVED BY THE ENGINEER.

KEYED NOTES FOR DEMO:

1. REMOVE ALL, MECHANICAL EQUIPMENT, SOUND ATTENUATORS, INSULATION, ETC... SHOWN HATCHED TO ALLOW INSTALLATION OF NEW EQUIPMENT. EXISTING SUPPORT STRUCTURE REQUIRED TO ACCOMMODATE NEW EQUIPMENT AND DUCTWORK SHALL REMAIN.
2. DISCONNECT HEATING HOT WATER (GLYCOL) SUPPLY AND RETURN PIPING FROM AIR HANDLING UNIT AND TEMPORARILY CAP FOR REUSE WITH NEW AIR HANDLING UNIT.
3. DISCONNECT / RECONNECT FIRE ALARM AND CONTROL WIRING TO AIR HANDLING UNIT. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS.
4. REFER TO ELECTRICAL DRAWING FOR POWER DEMOLITION REQUIREMENTS.

INSTALLATION NOTES FOR NEW AHU-15:

1. MOUNT NEW AIR HANDLING UNIT ON EXISTING EQUIPMENT PLATFORM. MODIFY SUPPORT PLATFORM AS REQUIRED FOR EXACT UNIT INSTALLED USING LIKE MATERIAL TO EXISTING.
2. CONNECT EXISTING HEATING HOT WATER SUPPLY AND RETURN TO NEW AIR HANDLING UNIT.
3. TRANSITION NEW UNIT DUCTWORK AS REQUIRED TO MATCH EXISTING DUCT SIZE AND CONNECT NEW DUCTWORK TO EXISTING. OVERLAP NEW STAINLESS STEEL INSULATION SHEATHING 12" OVER EXISTING SPRAY ON INSULATION. HEM AND SEAL EDGE OF SHEATHING.
4. USE EXISTING NUMBER OF REFRIGERANT CIRCUITS AND PIPING SIZES PER MANUFACTURER'S RECOMMENDATIONS. ALL LINES SHALL BE FLUSHED ACCORDING TO MANUFACTURERS RECOMMENDATION FOR NEW REFRIGERANT.
5. ROUTE REFRIGERANT PIPING UP AND SUPPORT FROM EXISTING DUCT SUPPORTS USING HOT-DIPPED GALVANIZED PIPING SUPPORTS.
6. MOUNT NEW CONDENSING UNIT ON NEW 1" DEFLECTION RESTRAINED SPRING ISOLATORS. SPRINGS SHALL BE EPOXY COATED AND ISOLATOR HOUSING SHALL BE HOT-DIPPED GALVANIZED. MOUNT TO PAD WITH IMBEDDED HOT-DIPPED GALVANIZED ANCHOR BOLTS. EXISTING MOUNTING STRUCTURE SHALL BE UTILIZED.
7. REUSE EXISTING STAINLESS STEEL OUTSIDE AIR GOOSE NECK VENT WITH NEW BRACING/SUSPENSION TO REPLACE HOOD VENT ON NEW UNIT. DO NOT SUSPEND FROM UNIT. PROVIDE CLEARANCE FOR SERVICE MAINTENANCE PERSONNEL. SEE PICTURE BELOW FOR EXISTING CONDITION.
8. REFER TO ELECTRICAL DRAWING FOR POWER NEW WORK REQUIREMENTS.

PICTURE FROM LOCATION 'A'
SCALE: NTS

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CAPE MAY

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ISSUE		
MARK	DATE	DESCRIPTION

A/E PROJECT NO: CMS-1576
CAD FILE NAME: T-7090-MD DEMO & INSTALL PLAN.dwg
DESIGNED BY: LT JUSTIN DAVIS
DRAWN BY: LT JUSTIN DAVIS
EDITED BY:
CHECKED BY:

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

SHEET TITLE

GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, RPFN 269
MECHANICAL
HVAC DEMOLITION AND INSTALLATION PLAN

PROJECT ENG. | BRANCH CHIEF

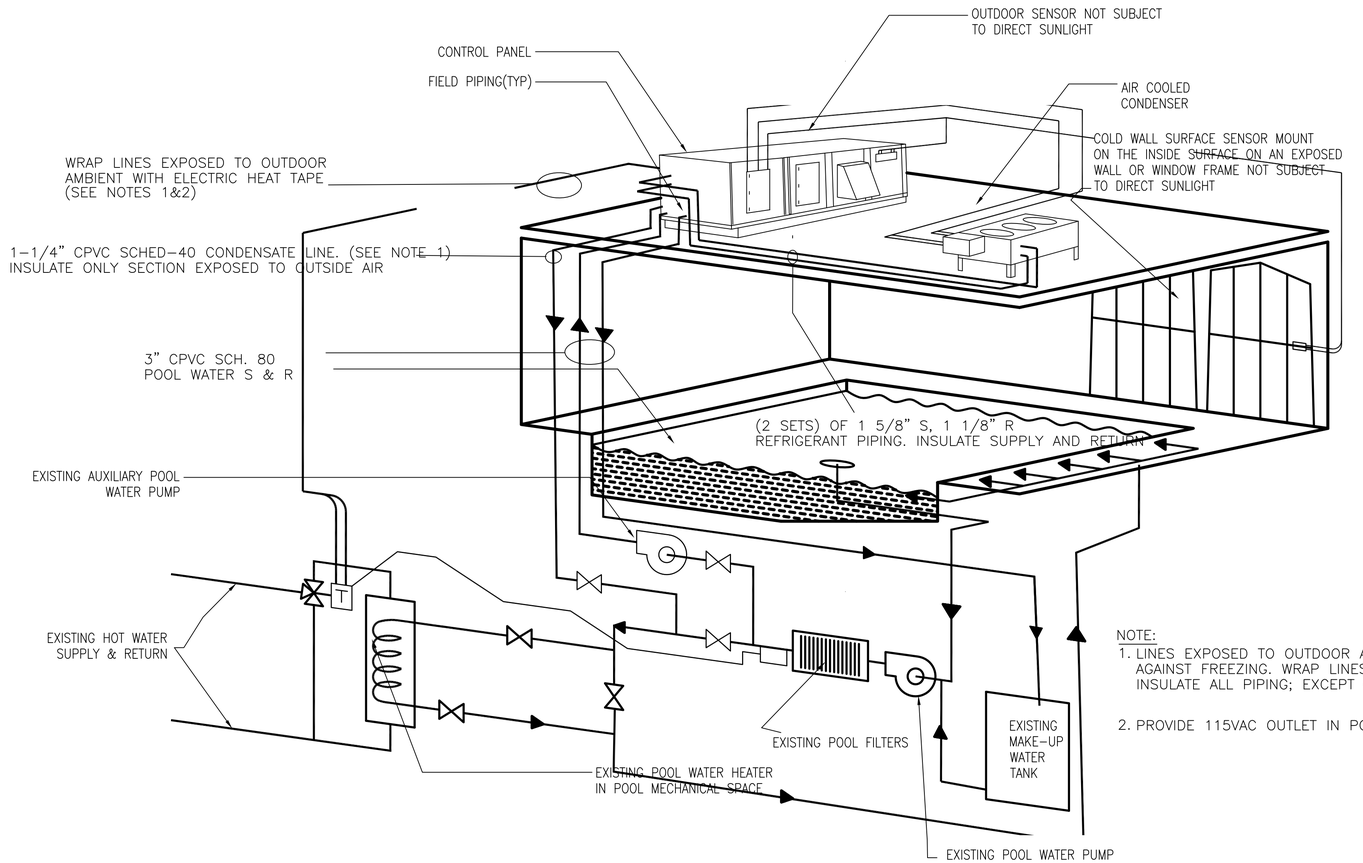
APPROVING OFFICER | 6/28/19 DATE

PROJECT NUMBER	DRAWING NUMBER
12672868	T-7090-MD
DISCIPLINE/SHT NO	
M2	SHEET 4 OF 6

AIR HANDLING UNIT SCHEDULE

UNIT NO.	SERVICE	LOCATION	CAPACITY TOTAL COOLING LOAD MBH	CAPACITY HTG MBH	AIR FLOW CFM O.A. MIN	AIR FLOW CFM HIGH/LOW	TOTAL PRESS IN WG.	FAN MOTOR DATA HP	VOLTS	PHASE	HZ	FAN SPEED RPM SF/RF	SEE OTHER SCHEDULES HC	SEE OTHER SCHEDULES FILT.	MAKE AND MODEL	REMARKS	ELECTRICAL DATA DUAL POINT POWER VOLTS	PHASE	HZ	COMPRESSOR CIRCUIT MCA/MOP	FAN CIRCUIT MCA/MOP
AH-15	POOL AREA	PENTHOUSE	566	689	2250	22500	1.75	25	460	3	60	831	--	--	POOLPAK PPK-220-PT-X-A4FH2203W2E5AD5	NOTE-1-2	460	3	60	89/100	78/90

NOTE:
1. AIR COOLED CONDENSER POOL PAK MODEL NG-V-22-EUC-V. CAPACITY IS 700 MBH, 460V AND 3 PHASE. AIR COOLED CONDENSER REQUIRES TWO CIRCUITS, ONE FOR EACH COMPRESSOR.
2. 25HP COMPRESSORS REQUIRED.



NOTE:
1. LINES EXPOSED TO OUTDOOR AMBIENT AIR TEMPERATURES MUST BE PROTECTED AGAINST FREEZING. WRAP LINES WITH ELECTRIC HEAT TAPE (FOLLOW MANUFACTURER'S INSULATE ALL PIPING; EXCEPT CONDENSATE PIPING "NOT" EXPOSED TO OUTSIDE AIR
2. PROVIDE 115VAC OUTLET IN POOLPAK UNIT TO SUPPLY POWER TO HEATING TAPE.

POOL HVAC SYSTEM WIRING & PIPING DIAGRAM

SCALE: NTS

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CAPE MAY

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1 MUNRO AVE.
CAPE MAY, NJ 08204-5092

ISSUE		
MARK	DATE	DESCRIPTION

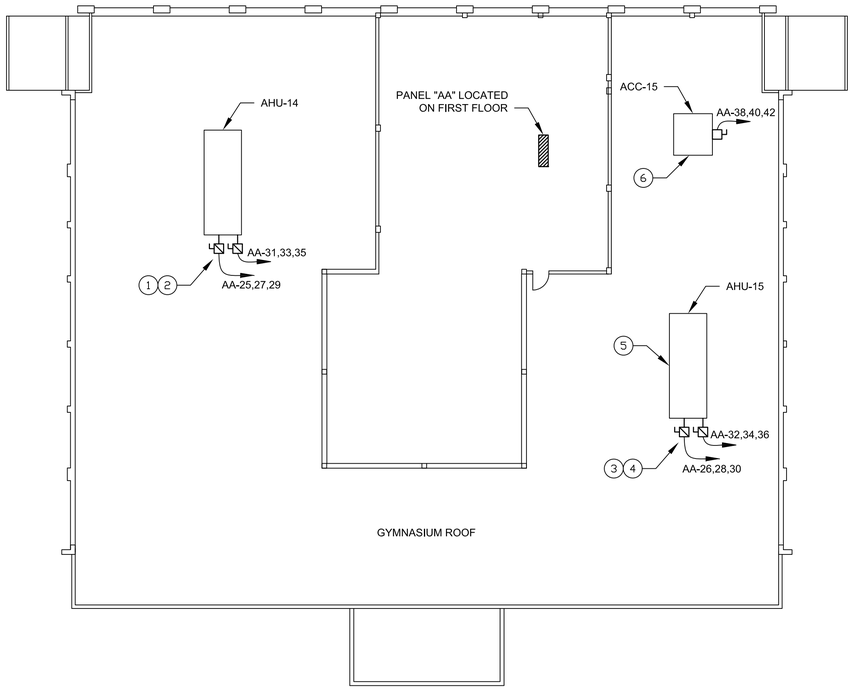
A/E PROJECT NO:	CMS-1576
CAD FILE NAME:	T-7091-MD HVAC DETAILS.dwg
DESIGNED BY:	LT JUSTIN DAVIS
DRAWN BY:	LT JUSTIN DAVIS
EDITED BY:	
CHECKED BY:	
SCALE:	1/8" = 1'-0" PLOT SCALE: 1 : 1

SHEET TITLE

GYM POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, RPFN 269
MECHANICAL
HVAC DETAILS AND SCHEDULE

PROJECT ENG.	BRANCH CHIEF
APPROVING OFFICER	6/28/19 DATE

PROJECT NUMBER	DRAWING NUMBER
12672868	T-7091-MD
DISCIPLINE/SHT NO	
M3	SHEET 5 OF 6



ELECTRIC, NEW WORK PLAN

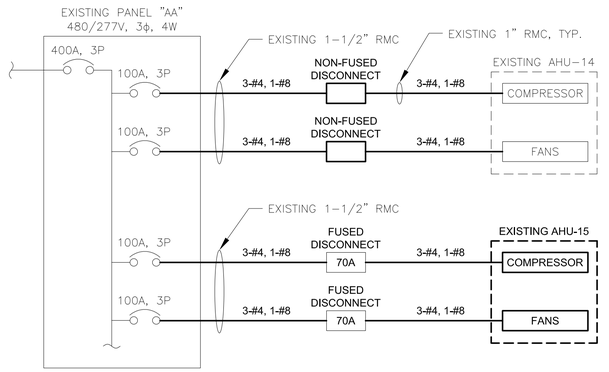
SCALE: 1/16" = 1'-0"

CONSTRUCTION NOTES:

1. DEMOLISH TWO NON-FUSED DISCONNECTS SERVING AHU-14. PROVIDE TWO NEW NEMA 3R, METAL, 3 POLE, FUSED DISCONNECTS. PROVIDE NEW DUAL ELEMENT, TIME DELAY, CURRENT LIMITING FUSES SIZED IN ACCORDANCE WITH THE ONE-LINE DRAWING.
2. DEMOLISH WIRING BETWEEN PANEL "AA" AND AHU-14. PROVIDE NEW WIRING RUN IN EXISTING RIGID METAL CONDUIT.
3. PROVIDE NEW CLASS RK5, DUAL ELEMENT, TIME DELAY, CURRENT LIMITING FUSES IN THE TWO EXISTING FUSED DISCONNECTS SERVING AHU-15. SIZE FUSES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. SIZES SHOWN ARE BASED ON EXISTING HVAC EQUIPMENT. REFER TO GENERAL NOTE #1.
4. DEMOLISH WIRING BETWEEN PANEL "AA" AND AHU-15. PROVIDE NEW WIRING RUN IN EXISTING RIGID METAL CONDUIT. IF NECESSARY, REPLACE / EXTEND RIGID METAL CONDUIT BETWEEN DISCONNECT AND NEW AHU-15.
5. DISCONNECT / RECONNECT EXISTING FIRE ALARM CONTROL WIRING TO AHU-15.
6. DISCONNECT / RECONNECT EXISTING NON-FUSED DISCONNECT SWITCH AND WIRING TO ACC-15. IF NECESSARY, REPLACE / EXTEND RIGID METAL CONDUIT AND WIRE BETWEEN DISCONNECT AND NEW ACC-15.

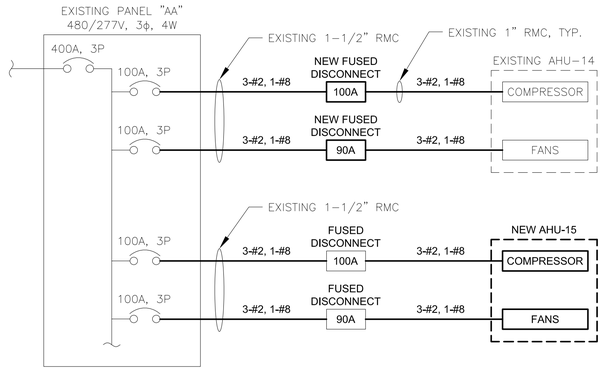
GENERAL NOTES:

1. FUSE AND WIRE SIZES GIVEN FOR AHU-15 ARE COORDINATED WITH THE BASIS OF DESIGN HVAC EQUIPMENT. IF THE ACTUAL INSTALLED HVAC EQUIPMENT DIFFERS FROM THE BASIS OF DESIGN EQUIPMENT, THE CONTRACTOR SHALL INSTALL THE CORRECT SIZE CIRCUIT BREAKERS, FUSES, AND WIRE AS NECESSARY TO MEET THE LATEST NEC REQUIREMENTS AT NO ADDITIONAL COST TO THE GOVERNMENT. COORDINATE FINAL POWER REQUIREMENTS WITH MECHANICAL CONTRACTOR.
2. ELECTRICAL WORK SHALL BE COMPLETED SUCH THAT EITHER AHU-14 OR AHU-15 IS OPERATIONAL AT ANY ONE TIME.
3. COORDINATE ALL POWER OUTAGES WITH THE CONTRACTING OFFICER'S REPRESENTATIVE.



EXISTING ONE-LINE

SCALE: NONE



NEW ONE-LINE

SCALE: NONE

LEGEND

AA-1,3,5	HOMERUN, PANEL AND CIRCUIT # INDICATED
	DISCONNECT SWITCH, NON-FUSED
	DISCONNECT SWITCH, FUSED
ACC	AIR COOLED CONDENSER
AHU	AIR HANDLING UNIT
RMC	RIGID METAL CONDUIT

GRAPHICAL SCALE: 1/16" = 1'

0 4' 8' 12' 16' 24' 32' 48'

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TRAINING CENTER
CAPE MAY

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1 MUNRO AVE.
CAPE MAY, NJ 08204-5092

ISSUE		
MARK	DATE	DESCRIPTION

A/E PROJECT NO:	CMS-1576
CAD FILE NAME:	
DESIGNED BY:	SCM
DRAWN BY:	SCM
EDITED BY:	
CHECKED BY:	

SCALE: AS SHOWN PLOT SCALE:

SHEET TITLE

POOL VENTILATION UNIT REPLACEMENT
TRACEN
CAPE MAY NEW JERSEY
GYM, BUILDING #269
ELECTRICAL
DEMO & NEW WORK PLANS

PROJECT ENG.	BRANCH CHIEF
APPROVING OFFICER	6/28/19 DATE

PROJECT NUMBER	DRAWING NUMBER
12672868	T-7091A-ED
DISCIPLINE/SHT NO	SHEET 6 OF 6
E/1	