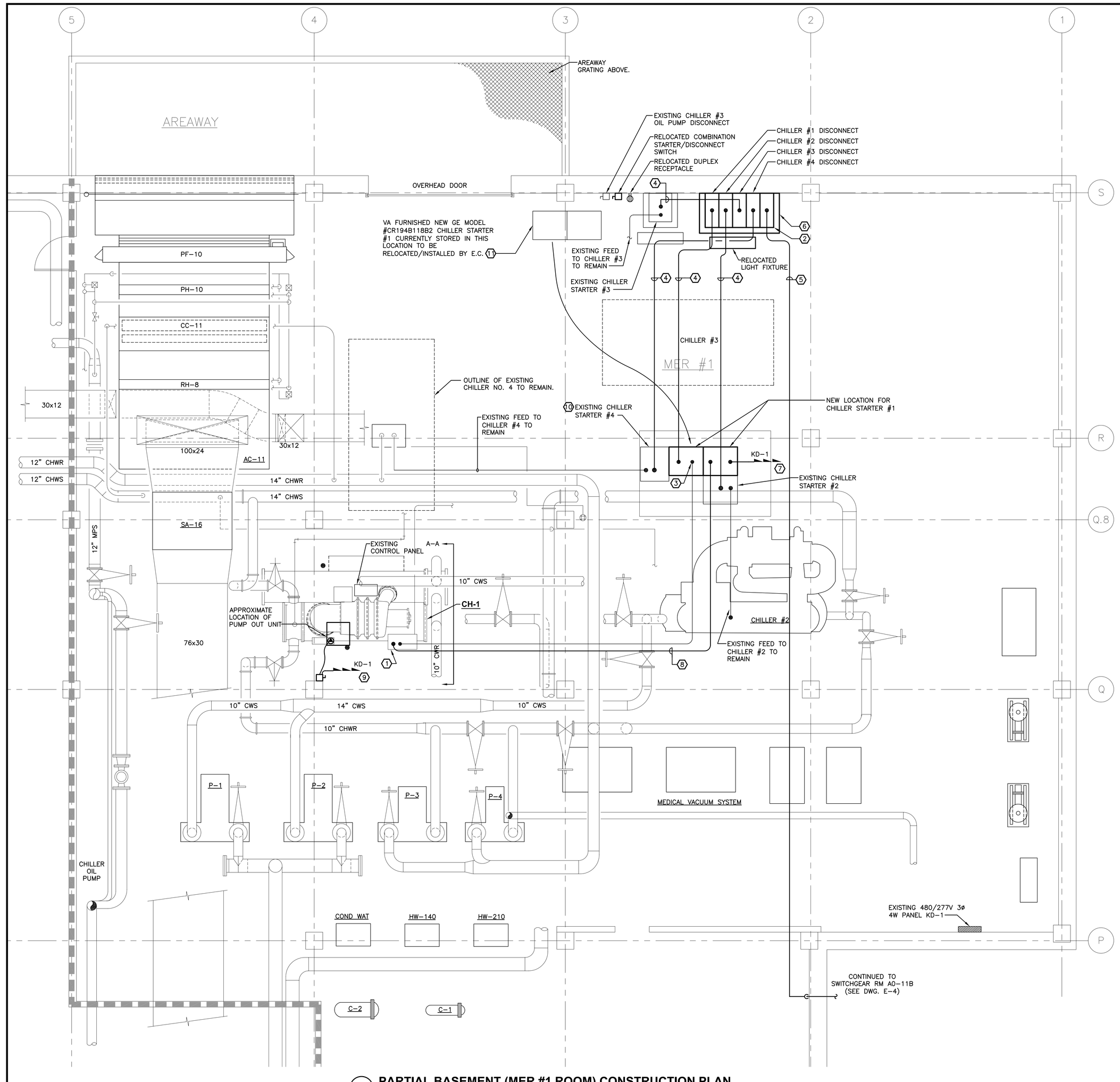
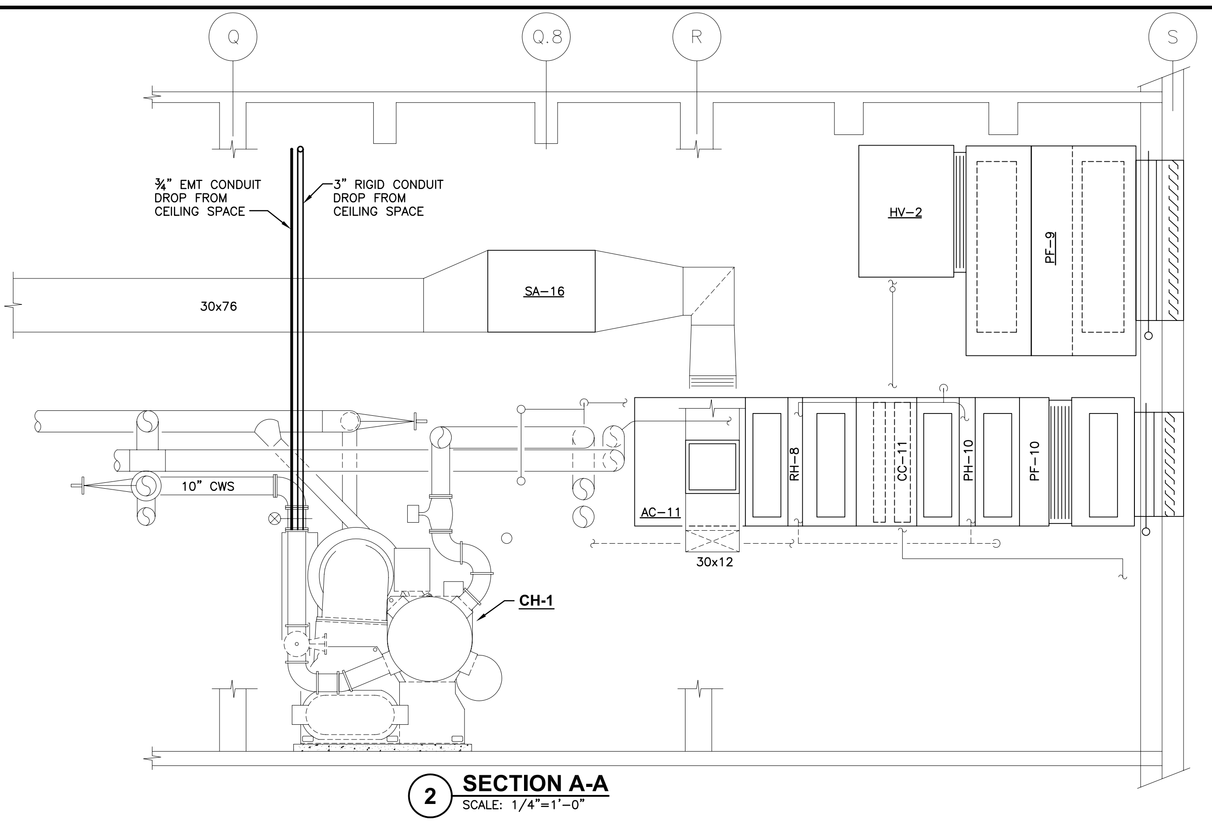


(1) PARTIAL BASEMENT (MER #1 ROOM) CONSTRUCTION PLAN
SCALE" 1/4"=1'-0"



(2) SECTION A-A
SCALE: 1/4"=1'-0"

SCOPE:

UPGRADE POWER FOR CHILLERS 1, 2, 3 & 4.

GENERAL NOTES:

1. E.C. SHALL MAKE EVERY EFFORT TO CONDUCT A THOROUGH WALK-THROUGH AND FAMILIARIZE THEMSELVES WITH THE BUILDINGS EXISTING SYSTEMS PRIOR TO THE COMPLETION OF THE BIDDING PROCESS.
2. NEW CHILLER CH-1 ELECTRICAL CHARACTERISTICS AS FOLLOWS:
   73 F.L.A.
   91 M.C.A.
   4160V, 3ø
3. EXISTING CHILLER ELECTRICAL CHARACTERISTICS AS FOLLOWS:
   - CHILLER #2:
     72 F.L.A.
     93 M.C.A.
     150 MOCP
     4160V, 3ø
   - CHILLER #3:
     74 F.L.A.
     93 M.C.A.
     150 MOCP
     4160V, 3ø
   - CHILLER #4:
     74 F.L.A.
     93 M.C.A.
     150 MOCP
     4160V, 3ø

KEYED NOTES:

(1) E.C. SHALL PROVIDE ALL ELECTRICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDUIT, CONDUCTORS, J.B'S AND ALL ASSOCIATED APPURTENANCES TO CONNECT THE NEW CHILLER#1.

(2) E.C. SHALL PROVIDE AND INSTALL A NEW 1200A MLO TOP FEED MEDIUM VOLTAGE DISTRIBUTION SWITCHGEAR WITH (4) 200A FUSED DISCONNECT SWITCHES WITH 150 AMP E-RATED MEDIUM VOLTAGE FUSES TO FEED THE FOUR CHILLERS. SWITCHGEAR SHALL BE TYPICAL OF SQUARE "D" MODEL #HVL AND SHALL BE RATED AT 4,160 VOLTS, 3 PHASE, 3 WIRE WITH A 1200 AMP COPPER BUS IN A NEMA TYPE 1 CATEGORY "B" ENCLOSURE, 25K AIC. APPROXIMATE DIMENSIONS OF ENCLOSURE ARE 73.75" WIDE x 37.25" DEEP x 90" HIGH. HOWEVER ACTUAL DIMENSIONS SHALL BE VERIFIED FROM MANUFACTURER PRIOR TO INSTALLATION. SWITCHGEAR SHALL BE LOCATED SUCH THAT THE EXISTING DUCTWORK IS NOT LOCATED WITHIN THE DEDICATED ELECTRICAL SPACE ABOVE THE SWITCHGEAR.

(3) E.C. SHALL PROVIDE AND INSTALL ALL APPURTENANCES AS REQUIRED TO MAKE FINAL CONNECTION TO CHILLER #1 STARTER. CONDUIT AND CONDUCTORS ARE EXISTING.

(4) E.C. SHALL PROVIDE AND INSTALL NEW CHILLER FEEDS #1, 2, 3 & 4 CONSISTING OF (3) #2 5KV CABLES (1)#6 GND IN 3" RIGID CONDUIT. PAINT CONDUIT ORANGE.

(5) E.C. SHALL PROVIDE A MAIN FEED TO NEW MEDIUM VOLTAGE SWITCHGEAR OF 2 SETS EACH CONSISTING OF (3) #250 MCM 5 KV CABLES, (1) #1/0 GND IN 4" RIGID CONDUIT. ROUTE TIGHT TO CEILING. PAINT CONDUIT ORANGE.

(6) E.C. SHALL PROVIDE AND INSTALL A NEW 4" HOUSEKEEPING PAD BELOW NEW MEDIUM VOLTAGE SWITCHGEAR. VERIFY ACTUAL DIMENSIONS OF PAD WITH SWITCHGEAR PRIOR TO INSTALLATION. PAINT SAFETY YELLOW. SEE CONCRETE PAD DETAIL ON DRAWING E-1.

(7) E.C. SHALL PROVIDE & INSTALL A (3)#12, (1)#12 GND IN ¾" CONDUIT RUN TO EXISTING PANEL KD-1. PROVIDE & INSTALL 20A THREE POLE CIRCUIT BREAKER IN PANEL KD-1.

(8) E.C. SHALL PROVIDE & INSTALL (3)#12, (1)#12 GND IN ¾" CONDUIT FROM OIL PUMP CIRCUIT BREAKER IN CHILLER #1 STARTER TO THE OIL PUMP AT THE CHILLER. COORDINATE EXACT LOCATION OF OIL PUMP IN FIELD.

(9) E.C. SHALL PROVIDE & INSTALL (4)#10, (1)#12 GND IN ¾" CONDUIT TO EXISTING PANEL KD-1. PROVIDE & INSTALL 30A THREE POLE CIRCUIT BREAKER IN PANEL KD-1. PROVIDE AND INSTALL 600V 30A 3 POLE 3 WIRE WITH SOLID NEUTRAL NON FUSIBLE DISCONNECT SWITCH TYPICAL OF SQUARE D OR APPROVED EQUAL FOR DISCONNECTING MEANS.

(10) STARTER #4 SHALL BE TEMPORARILY MOVED TO ALLOW FOR INSTALLATION OF STARTER #1 AS REQUIRED. THIS PLAN SHOWS THE CURRENT AND FINAL LOCATION OF STARTER #4. REFER TO E-2 FOR RELOCATION DETAILS.

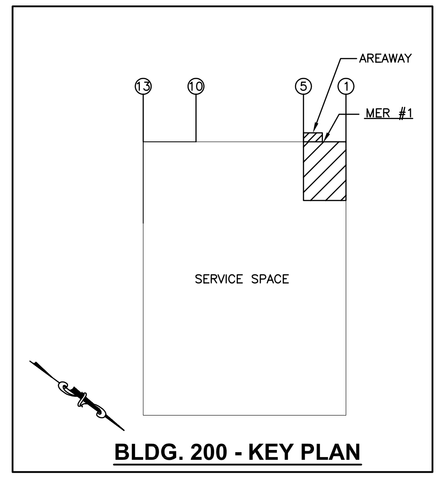
(17) VA FURNISHED STARTER #1 IS CURRENTLY HOUSED IN A NEMA 3R ENCLOSURE. E.C. SHALL HIRE A G.E. AUTHORIZED SERVICE REPRESENTATIVE TO PERFORM ALL WORK AS REQUIRED TO REMOVE STARTER #1 FROM THE NEMA 3R ENCLOSURE. AFTER REMOVAL, STARTER SHALL HAVE UL LISTING AS WELL AS MAINTAIN FACTORY WARRANTY. E.C. & G.E. REPRESENTATIVE SHALL PROPERLY DISPOSE OF NEMA 3R ENCLOSURE. AFTER REMOVAL FROM ENCLOSURE, E.C. SHALL BE RESPONSIBLE TO RELOCATE/INSTALL STARTER #1. RELOCATION SHALL INCLUDE ALL RIGGING REQUIRED TO MOVE STARTER #1 UNDER EXISTING UTILITIES AND PLACE IN NEW LOCATION AS SHOWN. COORDINATE WITH EXISTING OVERHEAD PIPING APPROXIMATELY 85" A.F.F.

LOAD	CONDUCTORS	C.B.			C.B.	CONDUCTORS	LOAD
EXISTING SPARE	- - -	60	1	2	60	- - -	EXISTING SPARE
			3	4			
			5	6			
CHILLER #1 OIL PUMP	(3)#12, (1)#12 GND 3/4" EMT	20*	7	8	30*	(4)#10, (1)#12 GND 3/4" EMT	CHILLER #1 PUMP OUT UNIT
			9	10			
			11	12			
EXISTING IN USE	EXISTING	110	13	14	110	EXISTING	EXISTING IN USE
			15	16			
			17	18			

* CONTRACTOR SHALL REMOVE EXISTING 100A BREAKER AND TURN OVER TO VA. PROVIDE AND INSTALL NEW BREAKER AS SHOWN.

EXISTING POWER PANEL - (KD-1)

TYPE: SIEMENS
RATING: 480/277V 3ø 4W
MAINS: 300A MCB
ENCLOSURE: SURFACE
POLES: 18



BLDG. 200 - KEY PLAN

100% CONSTRUCTION DOCUMENTS

Revisions	Date

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Designed By:	Drawn By:	Drawing Scale:	FE Project No.
THF	PJP	AS SHOWN	11-197

Drawing Title: **BLDG. 200: PARTIAL BASEMENT CONSTRUCTION PLAN, MER #1**
Approved: Division Chief
Approved: Service Director

Project Title: **UPGRADE POWER FOR CHILLER PLANT**
Building Number: **200**
Checked: --
Drawn: --
Location: **NORTHPORT, NY 11768**

Date: 8/1/11
Project No.: 632-11-119
Drawing No.: **E-3**
Dwg. 5 of 6

Office of Facilities
Department of Veterans Affairs
VA

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