

(E) FEEDER SCHEDULE

- (A) EXISTING 3-1/C, 2/0, 15KV, 133% INSULATED CCLP AND A #2 THW GROUND IN AN EXISTING DUCT.
- (B) EXISTING 6-500 MCM, 600V, 100% THHN AND A #2 GROUND PER PHASE IN 4" CONDUIT IN DUCT.
- (C) EXISTING 3-1/C, 2/0, 15KV, 133% INSULATED CCLP AND A #2 GROUND IN 4" FVC CONCRETE ENCASED DUCTS.
- (D) EXISTING 3-1/C, 2/0, 15KV, 133% INSULATED CCLP AND A #2 GROUND IN AN EXISTING DUCT.
- (E) EXISTING 3-1/C, 2/0, 15KV, 133% INSULATED CCLP AND A #2 GROUND IN 4" PVC DUCT POURED IN SWITCHING STATION CONCRETE PAD.
- (F) EXISTING 3-1/C, 2/0, 15KV, 133% INSULATED CCLP AND A #2 GROUND IN EXISTING 4" RIGID CONDUIT ROUTED THRU BUILDING #1.

DEMO/NEW WORK LEGEND

- (E) DENOTES EXISTING TO REMAIN.
- (R) DENOTES EXISTING TO BE REMOVED.
- (RE) DENOTES EXISTING TO BE RELOCATED.
- (ER) DENOTES NEW LOCATION OF EXISTING RELOCATED. (*)
- (N) DENOTES NEW TO MATCH EXISTING.
- (*) EXTEND BRANCH CIRCUIT WIRING AS REQUIRED.

LEGEND

- MOLDED CASE CIRCUIT BREAKER.
- DRAWOUT TYPE CIRCUIT BREAKER.
- SWITCH AND FUSE.
- AUTOMATIC TRANSFER SWITCH.
- TRANSFORMER.
- GENERATOR.
- RELAY.
- GROUND CONNECTION.
- MANHOLE.
- 1200A INDICATES FEEDER SIZE. SEE WIRE AND CONDUIT SCHEDULE.
- GROUND FAULT PROTECTION.

NOTE:
ALL WORK SHOWN FOR BUILDING'S NO. 4
AND NO.7 IS BID ADD ALTERNATE NO. 1.

NOTE:
BID ADD ALTERNATE NO. 2, PROVIDE 2000
KVA GEN SET IN LIEU OF 1500 KVA UNIT.

(E) TRANSFORMER, 1000 KVA,
12470V, PRIMARY, 480/277V, 3Ø,
4W, SECONDARY, z = 5.2%.

(N) ECB-180,
2000 AMP. (BY OTHERS)

(N) 4P, 2000 AMP
AUTOMATIC TRANSFER SWITCH
ACATS-1.

(N) PANEL MDS-2A, 800
AMP, 480/277V, 3Ø, 4W.

(N) TAP PER NEC.

(N) CHILLER DISTRIBUTION MOTOR CONTROL CENTER MCC-1, 1200AMP, 480V, 3Ø, 4W.

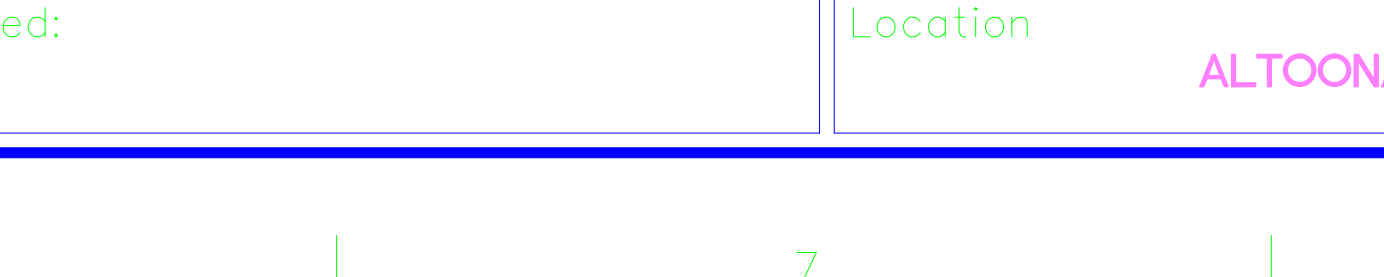
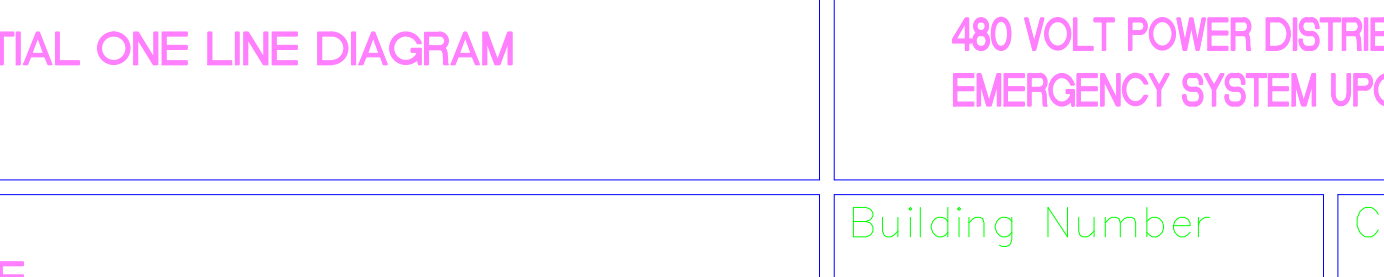
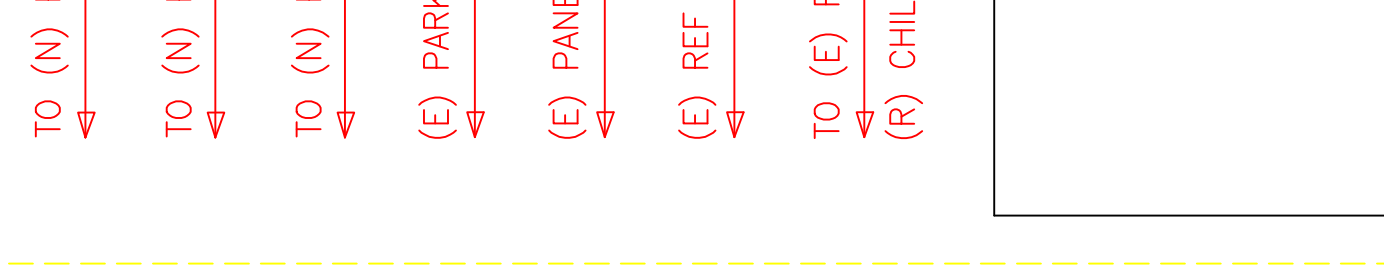
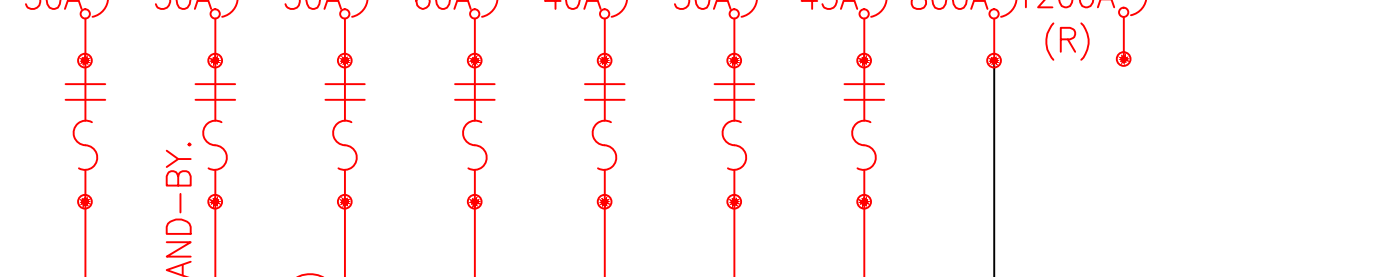
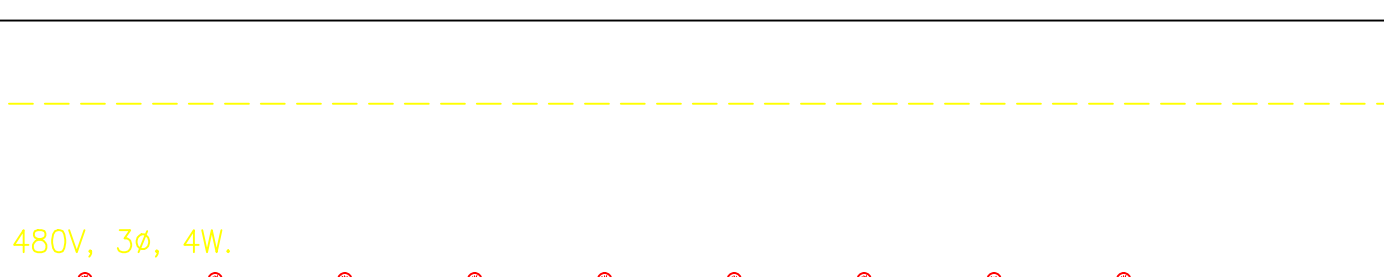
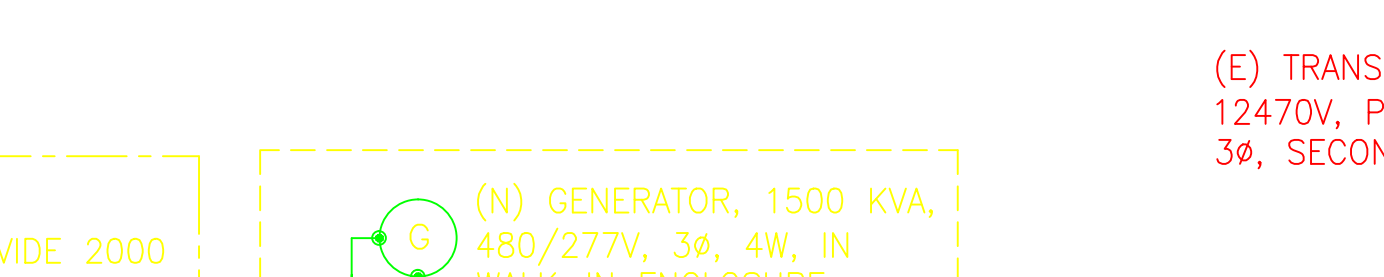
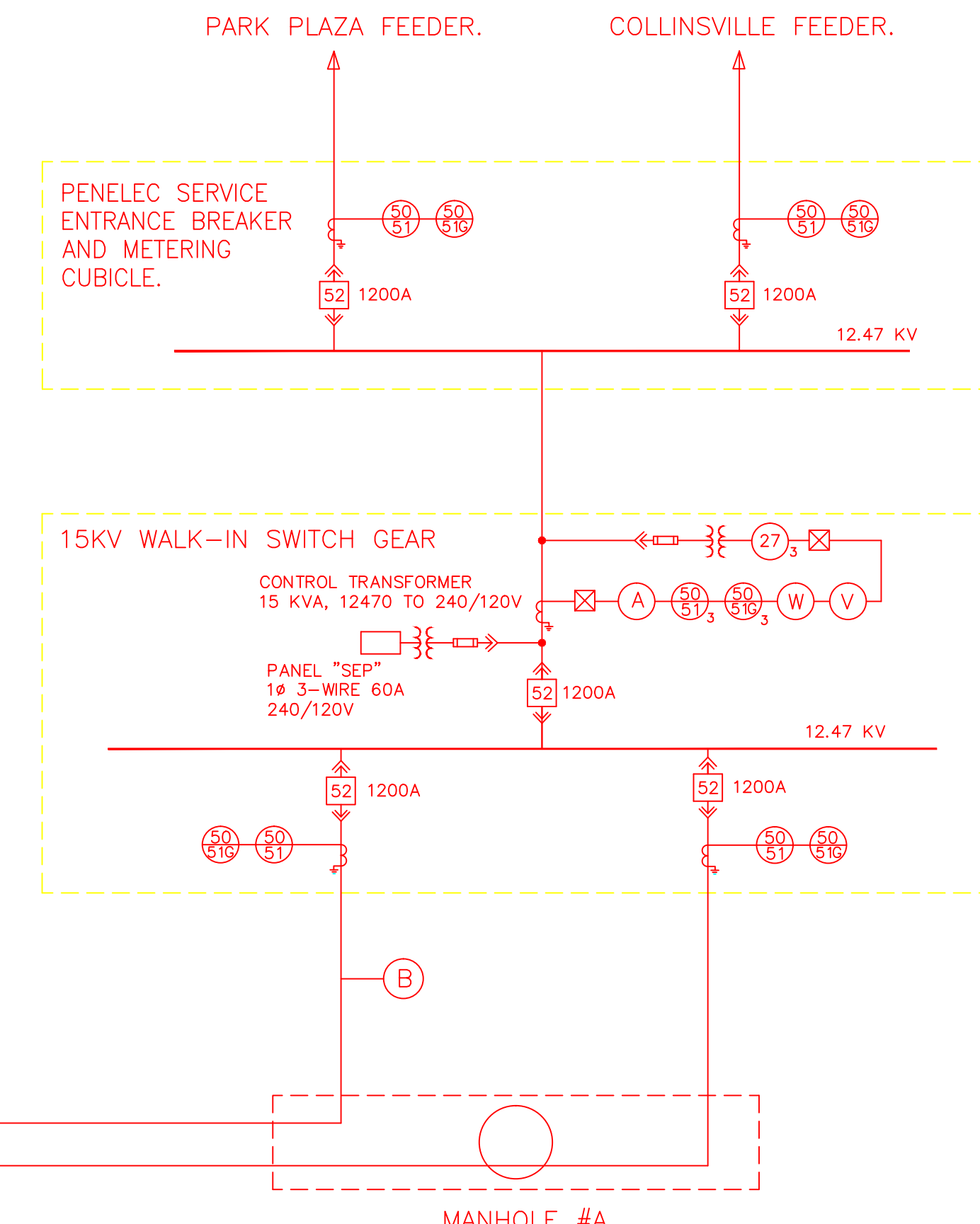
(N) CHILLER DISTRIBUTION SWITCHBOARD CDS-1, 2000 AMP, 480V, 3Ø, 4W. (BY OTHERS)

(N) TRANSFORMER, 1500 KVA,
12470V, PRIMARY, 480/277V, 3Ø,
4W, SECONDARY. (BY OTHERS)

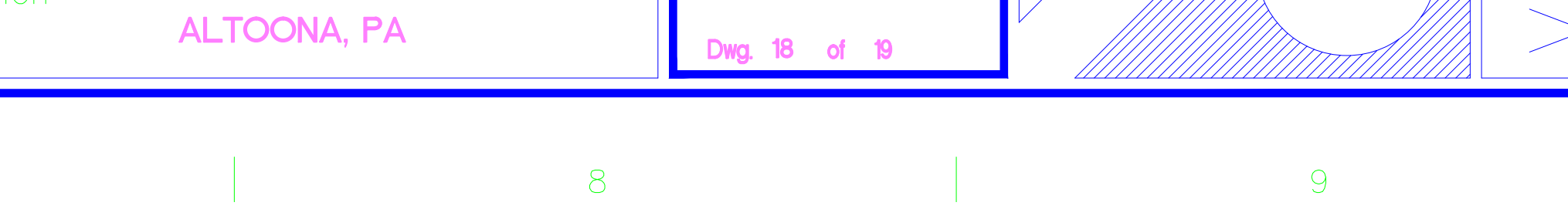
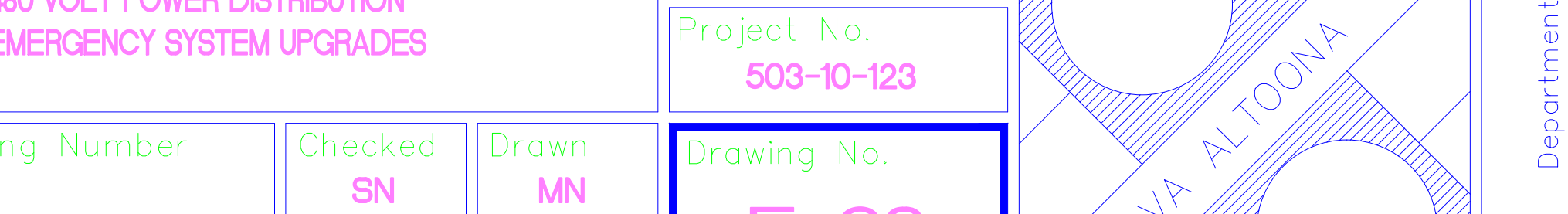
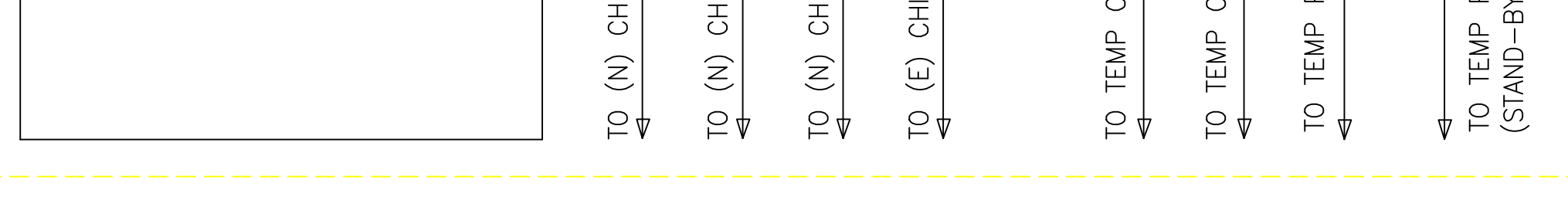
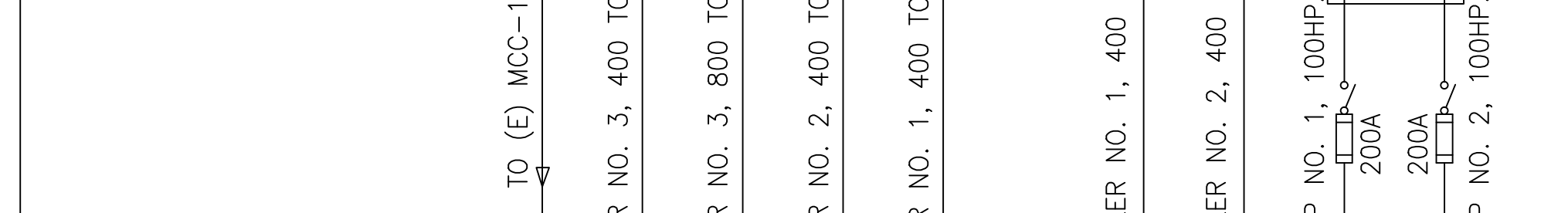
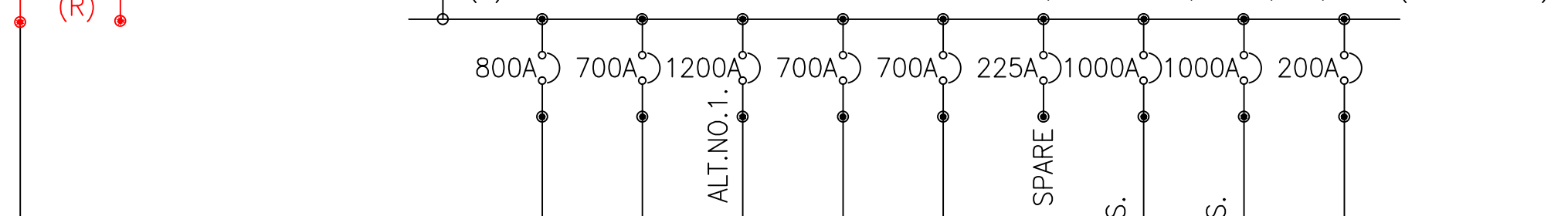
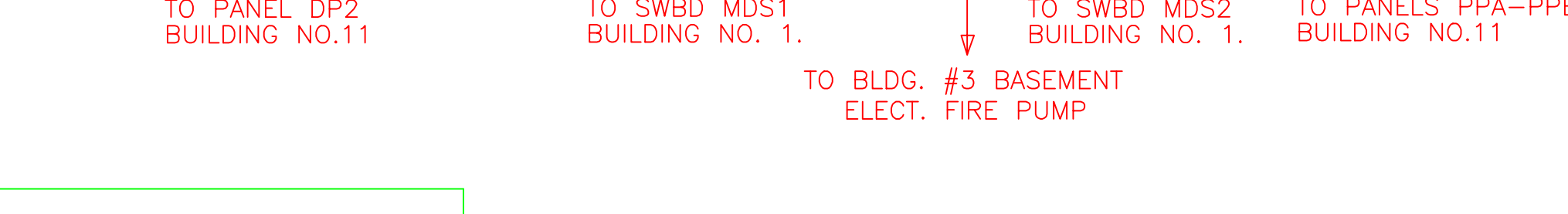
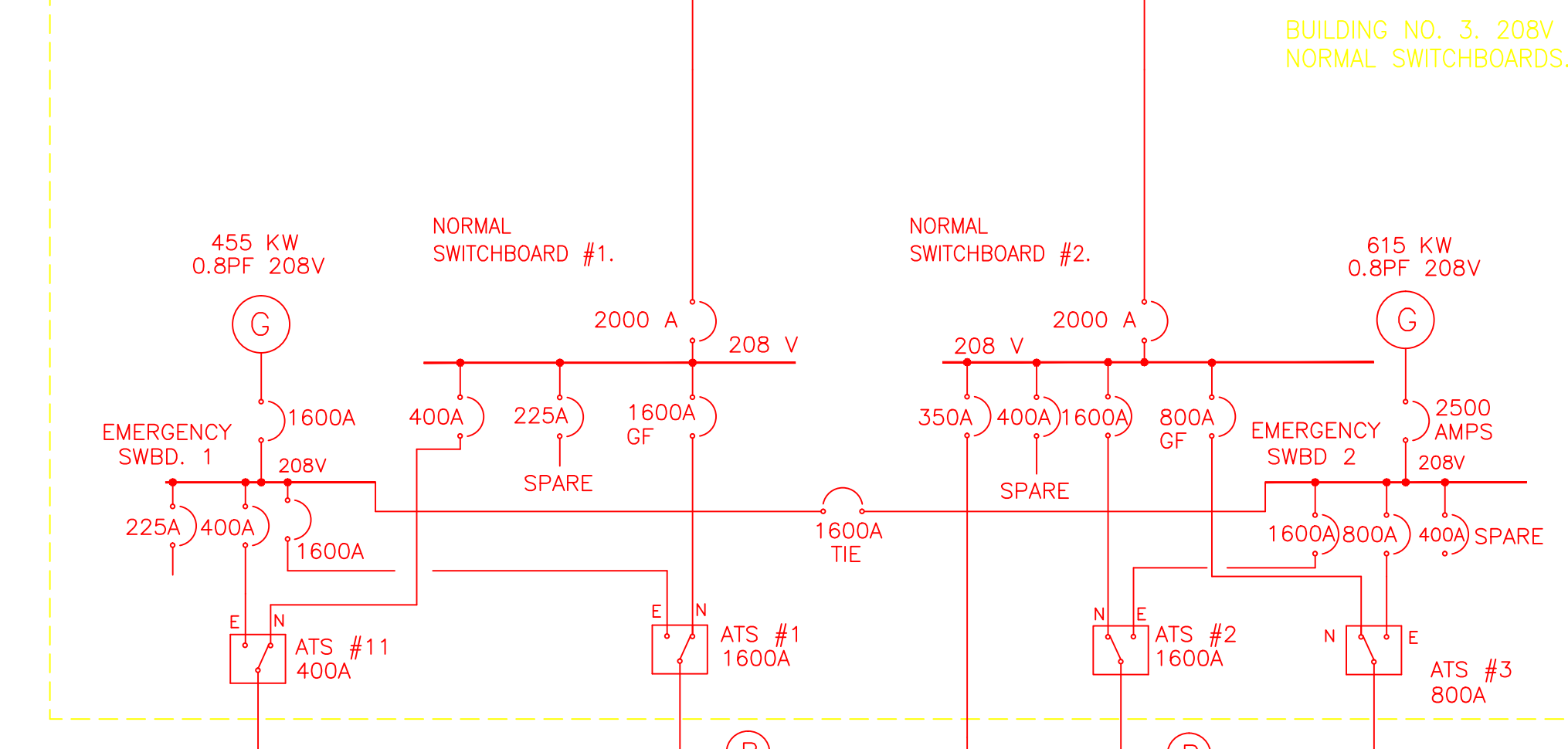
(N) TRANSFORMER, 750 KVA,
12470V, PRIMARY, 208/120V,
3Ø, SECONDARY, z = 6.16%.

PARTIAL ELECTRICAL ONE LINE DIAGRAM

NOT TO SCALE
NOTE: REFER TO WIRE AND CONDUIT SIZE SCHEDULE FOR FEEDER SIZES.



WIRE & CONDUIT SIZE SCHEDULE (UNLESS OTHERWISE SHOWN)									
CIRCUIT BREAKER TRIP	WIRE SIZE	1 OR 2 POLE		3 POLE		WIRE SIZE	3 POLE		WIRE SIZE
		CONDUIT INCHES	MM	CONDUIT INCHES	MM		CONDUIT INCHES	MM	
15A	#12	.75"	21	#12	.75"	21	#12	.75"	#12
20A	#12	.75"	21	#12	.75"	21	#12	.75"	#12
30A	#10	.75"	21	#10	.75"	21	#10	.75"	#10
40A	#10	.75"	21	#8	.75"	21	#8	.75"	#8
50A	#10	1"	27	#6	1"	27	#6	1"	#6
60A	#10	1"	27	#4	1.25"	35	#4	1.25"	#4
70A	#8	1"	27	#4	1.25"	35	#4	1.25"	#4
80A	#8	1.25"	35	#3	1.25"	35	#3	1.25"	#3
90A	#8	1.25"	35	#2	1.25"	35	#2	1.25"	#2
100A	#8	1.5"	41	#1	1.5"	41	#1	1.5"	#1
125A	#6			1.5"	41	#1			
150A	#6			2"	51	#1/0			
175A	#6			2"	51	#2/0			
200A	#6			2"	51	#3/0			
225A	#4	2.5"	64	#4/0					
250A	#4	2.5"	64	#250					
300A	#4	2.5"	64	#350					
350A	#3	3.5"	89	#500					
400A	#3	3.5"	89	#600					
500A	1#2eod	2 SETS	2.5"	64	#250				
600A	1#1eod	2 SETS	2.5"	64	#350				
650A	#1/0eod	2 SETS	3"	75	#400				
800A	#1/0eod	2 SETS	3.5"	89	#600				
1200A	#3/0eod	3 SETS	4"	103	#600				
2000A	250eod	5 SETS	4"	103	#600				
2500A	350eod	6 SETS	4"	103	#600				
3000A	400eod	8 SETS	4"	103	#600				



BID DOCUMENTS	09-26-11
95% - CONSTRUCTION DOCUMENTS	09-06-11
75% - CONSTRUCTION DOCUMENTS	08-11-11
50% - DESIGN DEVELOPMENT SUBMISSION	07-08-11
25% - SCHEMATIC SUBMISSION	06-09-11
Revisions	Date

ARCHITECT/ENGINEERS:

CVA
Culpeper
Veterans
Associates

CULPEPER VETERANS ASSOCIATES
14801 MURDOCK STREET, SUITE 135A,
CHANTILLY, VA 20151-1017
(703) 955-7160 FAX (703) 914-1420

James E. Van Zandt
Veterans Administration
Medical Center

Professional Seal

Drawing Title
PARTIAL ONE LINE DIAGRAM

Scale:
NONE

Approved:

Project Title
**480 VOLT POWER DISTRIBUTION
EMERGENCY SYSTEM UPGRADES**

Building Number
SN

Checked
MN

Drawn
MN

Location
ALTOONA, PA

Date
9-26-2011

Project No.
503-10-123

Drawing No.
E-03

Dwg 18 of 19

VA ALTOONA

Department of
Veterans Affairs